

# 2026 国际制导、导航与控制学术会议

2026 International Conference on Guidance, Navigation and Control

2026 年 8 月 7-9 日 中国·桂林

August 7-9, 2026 Guilin, China

## ICGNC 2026 程 序 册

Final Program



<http://icgnc.buaa.edu.cn>



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### 主办单位

中国航空学会  
飞行器一体化控制全国重点实验室

### 承办单位

中国航空学会制导、导航与控制分会  
桂林航天工业学院

### 技术协办单位

虚拟现实技术与系统全国重点实验室  
中国自动化学会导航制导与控制专业委员会  
中国自动化学会无人飞行器自主控制专业委员会  
中国自动化学会控制理论专业委员会  
中国自动化学会机器人智能专业委员会  
中国自动化学会教育工作委员会  
《制导、导航与控制（英文）》编辑部

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Chinese Society of Aeronautics and Astronautics  
National Key Laboratory of Aircraft Integrated Flight Control

### Organizers

Technical Committee on Guidance, Navigation and Control (TCGNC), CSAA  
Guilin University of Aerospace Technology

### Technical Sponsors

State Key Laboratory of Virtual Reality Technology and Systems  
Technical Committee on Navigation, Guidance and Control (TCNGC), CAA  
Technical Committee on Unmanned Aerial Systems Autonomous Control (TCUASAC), CAA  
Technical Committee on Control Theory (TCCT), CAA  
Technical Committee on Robotics Intelligence (TCRI), CAA  
Education Committee(EC), CAA  
GUIDANCE, NAVIGATION AND CONTROL Editorial Office

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# 欢迎辞

## Welcome Address

We are pleased to welcome you to the 2026 International Conference on Guidance, Navigation and Control (ICGNC 2026), which takes place at Shangri-La Guili, China. ICGNC 2026 is scheduled on August 7-9, 2026. ICGNC 2026 has received worldwide attentions from GNC researchers, professors and students, which shows GNC is a rising and hot field.

International Conference on Guidance, Navigation and Control (ICGNC) is a biennial event, which is also one of the leading events in Guidance, Navigation and Control (GNC). ICGNC 2026 is sponsored by Chinese Society of Aeronautics and Astronautics (CSAA) and National Key Laboratory of Aircraft Integrated Flight Control. It is organized by Technical Committee on Guidance, Navigation and Control (TCGNC), Chinese Society of Aeronautics and Astronautics (CSAA), and Guilin University of Aerospace Technology. It is technically co-sponsored by State Key Laboratory of Virtual Reality Technology and Systems Technical Committee on Navigation, Guidance and Control (TCNGC), CAA, Technical Committee on Unmanned Aerial Systems Autonomous Control (TCUASAC), CAA, Technical Committee on Control Theory (TCCT), CAA, Technical Committee on Robotics Intelligence (TCRI), CAA, Education Committee (EC), CAA, and *Guidance Navigation and Control* Editorial Office. The conference consists of plenary talks, chief designer forum, national-level model teacher forum, young scientist forum, invited sessions, oral sessions and poster sessions for academic exchanges.

The ICGNC 2026 marks the twelfth edition of the GNC series. We are proud to announce that this congress has received 1583 papers submissions from 10 countries and areas such as Canada, Chile, Germany, Japan, Russia, Singapore, United Kingdom, United States of America, Hong Kong, Macao. This is the highest number since the launching of ICGNC. After a rigorous peer-review process, 1136 English papers, 157 Chinese Papers and 22 Abstract Papers have been accepted for either oral or poster presentation at the conference in 41 oral technical sessions and 4 poster sessions, which including 1 best paper award oral defense session.

The conference program is highlighted by six plenary speeches given by Professor Tianyou Chai from Northeastern University, Professor Dengyun Yu from China Aerospace Science and Technology Corporation, Professor Lei Guo from Beihang University, Professor Dewen Hu from National University of Defense Technology, Professor Marios M. Polycarpou from University of Cyprus (Cyprus), and Professor Dong Zhang from AVIC Shenyang Aircraft Design and Research Institute.

This year, we invited four panelists for Chief Designer Forum, who are Chuanjian Liu from Civil Aviation Flight University of China, Yongtao Peng from AVIC Xi'an Flight Automatic Control Research Institute, Xiaoming Zhao from Tianjin Navigation Instrument Research Institute, and Yang Fu from AVIC Chengdu Aircraft Design and Research Institute. The conference program also features a GNC National-level Model Teacher Forum on innovation and practice of GNC education with four famous national-level model teachers: Professor Yu Yao from Harbin Engineering University, Professor Junfei Qiao from Beijing University of Technology, Professor Shaoyuan Li from Shanghai

JiaoTong University, and Professor Meiling Wang from Beijing Institute of Technology. We also invited ten young famous scholars in GNC field for Young Scientist Forum, who are Professor Peng Cheng from Zhejiang University, Professor Haichao Gui from Beihang University, Professor Huaping Liu from Tsinghua University, Professor Yajie Ma from Nanjing University of Aeronautics and Astronautics, Professor Lei Ren from Beihang University, Professor Guanghui Wen from Southeast University, Professor Jiande Wu from Yunnan University, Professor Dongrui Wu from Huazhong University of Science and Technology, Professor Bin Xin from Beijing Institute of Technology, and Professor Yanlong Zhao from Academy of Mathematics and Systems Science, CAS.

ICGNC 2026 also confers the LI Ming Best Paper Award, FENG Ru Best Paper Award and Best Poster Paper Award, to promote the academics, encourage young scientists to participate in academic activities, further to improve the paper quality and expand conference influence.

Our English proceedings have been sent and will be published by Springer-Nature in *Lecture Notes in Electrical Engineering* promptly, and the accepted Chinese papers will be published in several esteemed journals. We show our special thanks to the staffs of Springer-Nature and other Chinese journal publishers. We also wish to express our sincere appreciation to all the individuals who have contributed to ICGNC 2026 in various ways. Special thanks are extended to our colleagues in the program committee for their thorough review of all the submissions, which is vital to the success of this conference, and also to the members in the organizing committee and the volunteers who have dedicated their time and efforts in planning, promoting, organizing and helping the conference. Last but not least, our special thanks go to invited plenary speakers as well as all the authors for contributing their latest research to the conference, and to the participants and the exhibitors in making ICGNC 2026 a memorable event.

“Guilin’s water and mountains captivate the world”. Let us cherish our gathering in the famous city - Guilin for this exciting event in this hot summer. We hope that your stay in Guilin will be enriching and memorable and that the technical program will send you back home motivated, enthusiastic, cool, and full of innovative ideas.

We hope you enjoy the “hot”, fruitful and happy conference in Guilin.



*Jia Lianghua*



*Jin Feng Han*

**ICGNC2026 General Chairs**

# 国际制导、导航与控制学术会议

## 历 届 会 议

- |      |                                                          |
|------|----------------------------------------------------------|
| 第一届  | 2007 中国制导、导航与控制学术会议<br>2007 年 11 月 4-5 日, 中国 北京          |
| 第二届  | 2008 中国制导、导航与控制学术会议<br>2008 年 11 月 14-16 日, 中国 西安        |
| 第三届  | 2009 中国制导、导航与控制学术会议<br>2009 年 11 月 14-15 日, 中国 北京        |
| 第四届  | 2010 中国制导、导航与控制学术会议<br>2010 年 10 月 16-18 日, 中国 上海        |
| 第五届  | 2012 中国制导、导航与控制学术会议<br>2012 年 8 月 10-12 日, 中国 北京         |
| 第六届  | 2014 IEEE 中国制导、导航与控制学术会议<br>2014 年 8 月 8-10 日, 中国 烟台     |
| 第七届  | 2016 IEEE 中国制导、导航与控制学术会议<br>2016 年 8 月 12-14 日, 中国 南京    |
| 第八届  | 2018 IEEE/CSAA 制导、导航与控制学术会议<br>2018 年 8 月 10-12 日, 中国 厦门 |
| 第九届  | 2020 国际制导、导航与控制学术会议<br>2020 年 10 月 23-25 日, 中国 天津        |
| 第十届  | 2022 国际制导、导航与控制学术会议<br>2022 年 8 月 5-7 日, 中国 哈尔滨          |
| 第十一届 | 2024 国际制导、导航与控制学术会议<br>2024 年 8 月 9-11 日, 中国 长沙          |

|      |                                               |
|------|-----------------------------------------------|
| 第十二届 | 2026 国际制导、导航与控制学术会议<br>2026 年 8 月 7-9 日，中国 桂林 |
| 第十三届 | 2028 国际制导、导航与控制学术会议<br>2028 年 8 月 5-7 日，中国 成都 |
| 第十四届 | 2030 国际制导、导航与控制学术会议<br>2030 年 8 月，中国 昆明       |
| 第十五届 | 2032 国际制导、导航与控制学术会议<br>2032 年 8 月，待定          |

# **INTERNATIONAL CONFERENCE ON GUIDANCE, NAVIGATION AND CONTROL (ICGNC) PAST, PRESENT AND NEXT**

|                |                                                                                                                        |
|----------------|------------------------------------------------------------------------------------------------------------------------|
| <b>First</b>   | CGNCC 2007<br>2007 Chinese Guidance, Navigation and Control Conference<br>November 4-5, 2007, Beijing, China           |
| <b>Second</b>  | CGNCC 2008<br>2008 Chinese Guidance, Navigation and Control Conference<br>November 14-16, 2008, Xi'an, China           |
| <b>Third</b>   | CGNCC 2009<br>2009 Chinese Guidance, Navigation and Control Conference<br>November 14-15, 2009, Beijing, China         |
| <b>Fourth</b>  | CGNCC 2010<br>2010 Chinese Guidance, Navigation and Control Conference<br>October 16-18, 2010, Shanghai, China         |
| <b>Fifth</b>   | CGNCC 2012<br>2012 Chinese Guidance, Navigation and Control Conference<br>August 10-12, 2012, Beijing, China           |
| <b>Sixth</b>   | IEEE CGNCC 2014<br>2014 IEEE Chinese Guidance, Navigation and Control Conference<br>August 8-10, 2014, Yantai, China   |
| <b>Seventh</b> | IEEE CGNCC 2016<br>2016 IEEE Chinese Guidance, Navigation and Control Conference<br>August 12-14, 2016, Nanjing, China |
| <b>Eighth</b>  | IEEE/CSAA GNCC 2018<br>2018 IEEE/CSAA Guidance, Navigation and Control Conference<br>August 10-12, 2018, Xiamen, China |
| <b>Ninth</b>   | ICGNC 2020<br>2020 International Conference on Guidance, Navigation and Control<br>October 23-25, 2020, Tianjin, China |
| <b>Tenth</b>   | ICGNC 2022                                                                                                             |

2022 International Conference on Guidance, Navigation and Control  
August 5-7, 2022, Harbin, China

**Eleventh** ICGNC 2024  
2024 International Conference on Guidance, Navigation and Control  
August 9-11, 2024, Changsha, China

**Twelfth** ICGNC 2026  
2026 International Conference on Guidance, Navigation and Control  
August 7-9, 2026, Guilin, China

**Thirteenth** ICGNC 2028  
2028 International Conference on Guidance, Navigation and Control  
August 5-7, 2028, Chengdu, China

**Fourteenth** ICGNC 2030  
2030 International Conference on Guidance, Navigation and Control  
August, 2030, Kunming, China

**Fifteenth** ICGNC 2032  
2032 International Conference on Guidance, Navigation and Control  
August, 2032, TBD

ICGNC Official Website: <http://icgnc.buaa.edu.cn>

# 会议机构

## 主办单位



中国航空学会(CSAA)



飞行器一体化控制全国重点实验室

## 承办单位



中国航空学会(CSAA)制导、导航与控制分会  
(TCGNC)



桂林航天工业学院

## 技术协办单位



虚拟现实技术与系统全国重点实验室



中国自动化学会(CAA)导航制导与控制专业委员  
会(TCGNC)



中国自动化学会(CAA)无人飞行器自主控制专业  
委员会(TCUASAC)



中国自动化学会(CAA)控制理论专业委员会  
(TCCT)



中国自动化学会(CAA)机器人智能专业委员会  
(TCRI)



中国自动化学会(CAA)教育工作委员会 (EC)



《制导、导航与控制（英文）》编辑部

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## Sponsors

Chinese Society of Aeronautics and Astronautics (CSAA)

National Key Laboratory of Aircraft Integrated Flight Control

## Organizer

Technical Committee on Guidance, Navigation and Control (TCGNC), Chinese Society of Aeronautics and Astronautics (CSAA)

Guilin University of Aerospace Technology

## Technical Co-Sponsors

State Key Laboratory of Virtual Reality Technology and Systems

Technical Committee on Navigation, Guidance and Control (TCNGC), Chinese Association of Automation (CAA)

Technical Committee on Unmanned Aerial Systems Autonomous Control (TCUASAC), Chinese Association of Automation (CAA)

Technical Committee on Control Theory (TCCT), Chinese Association of Automation (CAA)

Technical Committee on Robotics Intelligence (TCRI), Chinese Association of Automation (CAA)

Education Committee(EC), Chinese Association of Automation (CAA)

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## **Exhibit Chairs**

Di Liu

Jianglong Yu

Yang Yuan

Yuwei Zhang

Aicheng Zou

## **Poster Session Chairs**

Mengzhen Huo

Shike Long

Zhuo Wang

Yuhang Xu

Jiang Zhao

## **Regisreation Chairs**

Xiaochao Liu

Jiang Wu

Yukai Zhu

## **Finance Chairs**

Ying Sun

Chen Wei

## **Local Chairs**

Deyuan Liu

Renlin Tang

Yongjun Wang

# ICGNC 2026 Conference Introduction

## 大会介绍

The 2026 International Conference on Guidance, Navigation and Control (ICGNC 2026) will be held in Guilin on August 7-9, 2026, following the successes of previous eleven events. International Conference on Guidance, Navigation and Control (ICGNC) is a biennial event, which is also one of the leading events in Guidance, Navigation and Control (GNC). ICGNC 2026 is sponsored by Chinese Society of Aeronautics and Astronautics (CSAA) and National Key Laboratory of Aircraft Integrated Flight Control. It is organized by Technical Committee on Guidance, Navigation and Control (TCGNC), Chinese Society of Aeronautics and Astronautics (CSAA), and Guilin University of Aerospace Technology. It is technically co-sponsored by State Key Laboratory of Virtual Reality Technology and Systems, Technical Committee on Navigation, Guidance and Control (TCNGC), Chinese Association of Automation (CAA), Technical Committee on Unmanned Aerial Systems Autonomous Control (TCUASAC), CAA, and Technical Committee on Control Theory (TCCT), CAA, Technical Committee on Robotics Intelligence (TCRI), CAA, Education Committee(EC), CAA, and *Guidance Navigation and Control* Editorial Office. The conference consists of plenary speeches, chief designer forum, model teacher forum, young scientist forum, invited sessions, oral sessions and poster sessions for academic exchanges.

继前十一届国际制导、导航与控制学术会议成功举办后，2026 国际制导、导航与控制学术会议（ICGNC 2026）将于 2026 年 8 月 7-9 日在桂林举行。国际制导、导航与控制学术会议（ICGNC）是一项两年一次的活动，也是导航与控制领域的主要活动之一。ICGNC 2026 由中国航空学会（CSAA）和飞行器一体化控制全国重点实验室共同主办，由中国航空学会（CSAA）制导、导航与控制分会（TCGNC）和桂林航天工业学院共同承办，由虚拟现实技术与系统全国重点实验室、中国自动化学会（CAA）导航制导与控制专业委员会（TCNGC）、无人飞行器自主控制专业委员会（TCUASAC）、控制理论专业委员会（TCCT）、机器人智能专业委员会（TCRI）、教育工作委员会（EC）和《制导、导航与控制（英文）》编辑部共同协办。会议包括大会特邀报告、总师论坛、国家级教学名师论坛、青年科学家论坛、特邀专题、口头报告专题和张贴海报专题等，以进行学术交流。

## I. Conference Venue Information 会场信息

ICGNC 2026 will take place at Shangri-La Guilin located in the east bank area of the Li River in Qixing District, Guilin. Nestled on the picturesque banks of the Li River, it sits east of Yushan Park and north of North Huancheng Second Road, around a 40-minute drive from Guilin Liangjiang International Airport.

桂林香格里拉酒店位于桂林市七星区漓江东岸片区，坐落于风景如画的漓江之滨，虞山公园东侧、环城北二路北侧，距桂林两江国际机场约 40 分钟路程。



图 1 Location of the host venue 大会主会场的位置



图 2 Venue Location Schematic Map 会场位置示意图

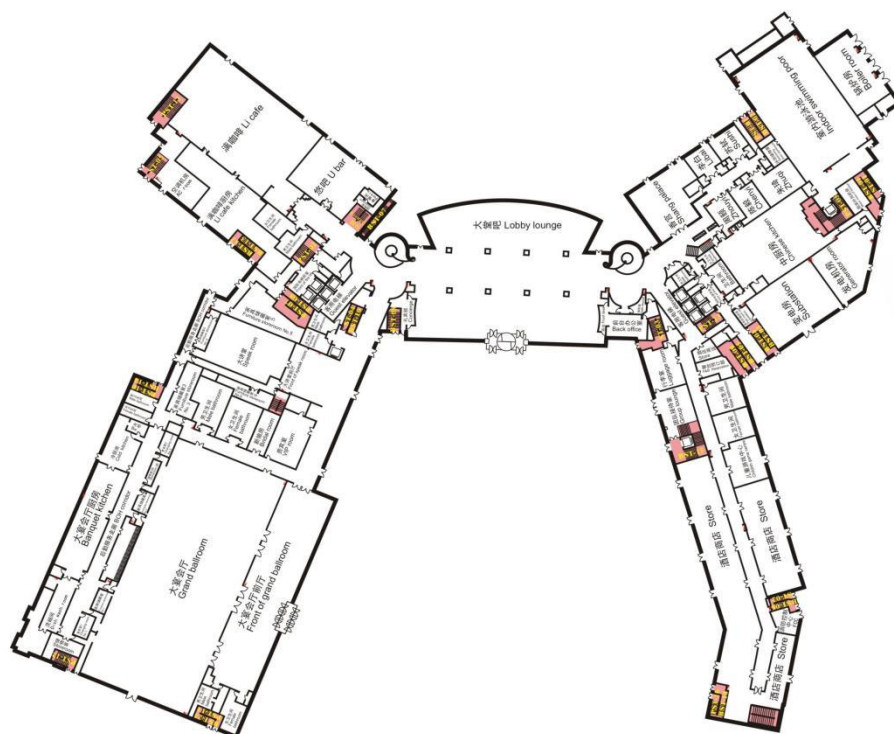


图 3 The 1<sup>st</sup> Floor Map of Shangri-La Guilin  
桂林香格里拉酒店 1 层平面图

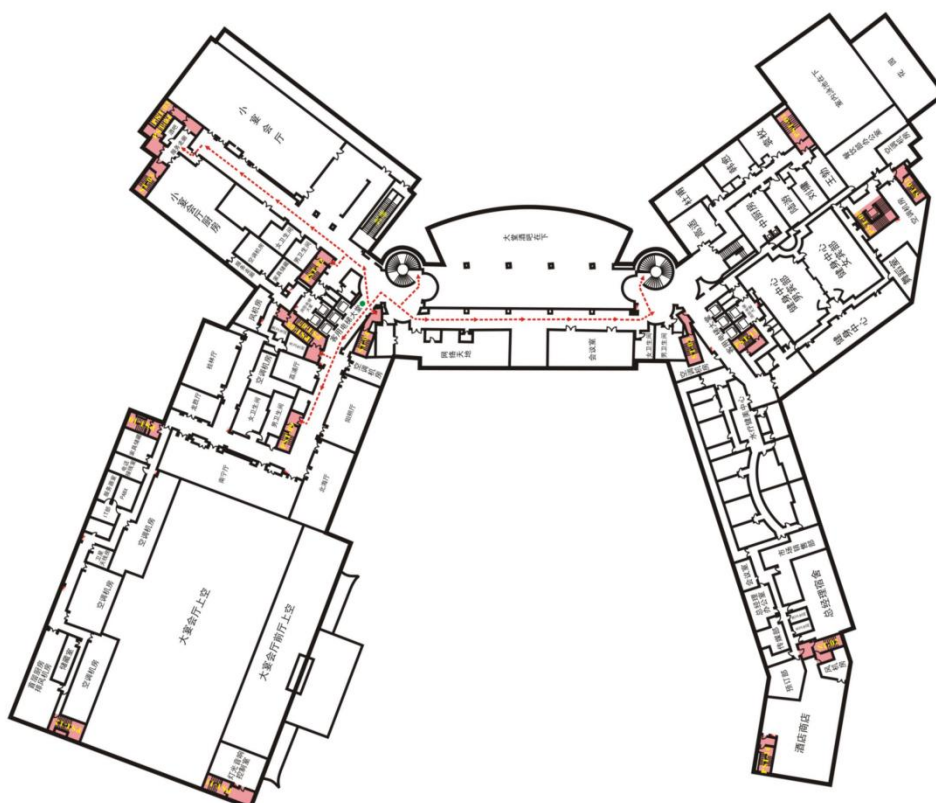


图 4 The 2<sup>nd</sup> Floor Map of Shangri-La Guilin  
桂林香格里拉酒店 2 层平面图

II. 交通信息

A、桂林两江国际机场：

- (1) 出租车：28 公里，约 45 分钟到达。
- (2) 机场 T2 航站楼 1 楼到达厅乘坐机场大巴 1 号线至七星公园，出站步行至七星公园公交站台，搭乘 32 路/30 路至虞山桥站下车，步行 2 分钟到达。

B、桂林火车站：

- (1) 出租车：4.6 公里，约 10-15 分钟到达。
- (2) 出站后搭乘 32/302 路至虞山桥站下车，步行 2 分钟到达，总用时约 40 分钟。

C、桂林火车北站：

- (1) 出租车：3.8 公里，约 10-15 分钟车程。
- (2) 出站后搭乘 32/302 路至虞山桥站下车，步行 2 分钟到达，总用时约 40 分钟。

D、桂林火车西站：

- (1) 出租车：7.8 公里，25-30 分钟车程。
- (2) 出站后搭乘 303 路至桂林北站公交总站下车，同站台换乘 32 路至虞山桥站下车，步行 2 分钟到达，总用时约 70 分钟。

E、高速：紧邻泉南高速、包茂高速、桂林绕城高速、机场高速环绕，距离七星互通口 4 公里。



图 5 Shangri-La Guilin Location  
桂林香格里拉酒店地理位置

### III. 住宿信息

表 1 大会推荐酒店信息一览表

| 地点 \ 目的地          | 主会场    | 桂林两江国际机场 | 桂林火车站  | 桂林火车北站  | 桂林火车西站  |
|-------------------|--------|----------|--------|---------|---------|
| 漓江大瀑布酒店           | 4.5 公里 | 34.7 公里  | 4.0 公里 | 6.2 公里  | 10.6 公里 |
| 碧玉国际酒店            | 6.6 公里 | 38.9 公里  | 7.5 公里 | 12.8 公里 | 18.1 公里 |
| 桂山大酒店             | 3.8 公里 | 36.0 公里  | 4.0 公里 | 9.6 公里  | 14.5 公里 |
| 帝凯国际酒店            | 7.7 公里 | 38.8 公里  | 7.8 公里 | 13.6 公里 | 18.9 公里 |
| 桂林民丰大酒店           | 2.2 公里 | 37.1 公里  | 5.9 公里 | 5.8 公里  | 11.1 公里 |
| 维也纳理工大学店          | 1.8 公里 | 37.4 公里  | 6.2 公里 | 5.6 公里  | 11.0 公里 |
| 万紫千红<br>屋顶花园店     | 774 米  | 37.1 公里  | 5.8 公里 | 5.8 公里  | 11.1 公里 |
| 桂林南越国际酒店          | 1.8 公里 | 36.3 公里  | 6.9 公里 | 3.3 公里  | 8.3 公里  |
| 曼哈顿两江四湖<br>北极广场店  | 914 米  | 36.3 公里  | 6.3 公里 | 4.2 公里  | 9.2 公里  |
| 花园假日酒店<br>(理工大学店) | 2.7 公里 | 37.6 公里  | 6.5 公里 | 5.4 公里  | 10.9 公里 |

### IV. 其他信息

#### 时区

UTC/GMT +8

#### 天气

桂林是一个气候温和、降水充沛、雨热同期、四季分明的城市，适合旅游。

有关天气更新，请访问 <https://www.tianqi.com/guilin/>

| Climate           | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug | Sep. | Oct. | Nov | Dec. |
|-------------------|------|------|------|------|-----|------|------|-----|------|------|-----|------|
| Daily highs(°C)   | 12   | 14   | 18   | 23   | 27  | 30   | 33   | 33  | 30   | 25   | 20  | 15   |
| Daily lows(°C)    | 5    | 7    | 11   | 16   | 20  | 23   | 25   | 25  | 22   | 16   | 11  | 6    |
| Precipitation(mm) | 41   | 60   | 100  | 166  | 244 | 288  | 164  | 113 | 68   | 56   | 59  | 31   |

#### 货币兑换

人民币是流通中的法定货币。官方货币汇率见 <http://www.boc.cn/sourcedb/wh>

[pj/enindex.html](#)（全国范围适用）。除机场（24 小时）和顶级酒店（通常为 4 星至 5 星）提供货币兑换服务外，周一至周五，中国银行和其他主要银行的所有分行都提供货币兑换服务。

## **旅游信息**

桂林市是国家历史文化名城，建制逾两千二百载，古称始安、桂州、静江，素有“桂林山水甲天下”“桂海名都”“抗战文化城”之誉。拥有甑皮岩史前遗址、兴安灵渠、明靖江王府与王陵、桂海碑林摩崖石刻、恭城文庙等珍贵历史遗迹。凝练出山水相融、包容多元、崇文重教的桂海文化，抗战时期云集全国文人志士，是大后方文化核心阵地，也是红军长征湘江战役的重要红色热土。桂林是国家批复建设的世界级旅游城市、全国性综合交通枢纽、中国-东盟开放合作前沿节点，联通长江、珠江两大水系，是古代海上丝绸之路内陆要道、华南生态文旅核心城市。

桂林市是首批中国优秀旅游城市、国家重点风景旅游城市，获评国家园林城市、国家生态文明建设示范市，拥有喀斯特地貌保护、漓江生态修复、特色中药与文旅文创等特色科研成果，有漓江、两江四湖·象山、独秀峰王城、遇龙河、兴坪古镇、七星景区、荔浦银子岩、红军长征湘江战役纪念园、东西巷等著名文旅景点。欲了解更多信息，请访问：

<https://www.travelchinaguide.com/cityguides/guilin.htm>

## **紧急情况**

拨打 110 接通警察，拨打 119 接通消防/救护车服务。

## **电力供应**

电源为 220 伏，50Hz。

## **饮用水**

建议您饮用开水或瓶装水。

## V. 联系信息

### 程序委员会秘书处

霍梦真，北京航空航天大学

电话：+86-13020093071

电子邮件：icgnc\_gncc@126.com

### 组织委员会秘书处

王勇军，桂林航天工业学院

电话：+86-15007794136

电子邮箱：icgnc2026@163.com

## VI. 会议安排总览

### GNC 国家级教学名师论坛

2026 年 8 月 7 日（周五） 09:00-11:40

### GNC 青年科学家论坛

2026 年 8 月 7 日（周五） 14:00-17:40

### 中国航空学会制导、导航与控制分会委员(含青年委员)工作会议

2026 年 8 月 7 日（周五） 20:30-22:00

### 大会开幕式

2026 年 8 月 8 日（周六） 08:30-09:00

### 大会报告

2026 年 8 月 8 日（周六） 09:00-12:00

2026 年 8 月 8 日（周六） 14:00-15:20

### GNC 总师论坛

2026 年 8 月 8 日（周六） 15:45-18:00

### 中国自动化学会导航制导与控制专业委员会年度工作会议

2026 年 8 月 8 日（周六） 16:00-18:00

### 分会场论坛口头报告

2026 年 8 月 9 日（周日）

第 1-10 组 A、B、C、D      8:00-12:15      13:30-17:45

优秀论文评选（第 11 组 A）      8:00-12:15

### 张贴海报

2026 年 8 月 9 日（周日）

第 12 组 A、B、C、D      8:00-12:15      13:30-17:45

优秀 Poster 评选（第 12 组 A）      8:00-10:00

## 口头报告与张贴报告要求

### Instruction for Oral and Poster Presentations

#### Oral Presentation:

- Oral Presentation Time: 8 minutes (except 10 minutes for Best Paper session).
- Each speaker is required to meet his/her session chairs in the corresponding session rooms 10 minutes before the session starts and copy the slide file (PPT or PDF) to the computer.
- Please note that each session room will be equipped with a screen and a laptop or desktop computer with general presentation software such as Microsoft PowerPoint and Adobe Reader preinstalled. Please make sure that your files are compatible and readable with our operation system by using commonly used fonts and symbols. If you plan to use your own computer, please test the connection and make sure it works before your presentation.

#### Poster Presentation:

- The size of poster paper is suggested to be 0.9m in width and 1.5m in height. The boards will be arranged in order of the paper in the final program. Tape and other materials will be provided on site, and volunteer-assistants will give necessary help. Posters are required to be condensed and attractive. The characters should be large enough so that they are visible from 1 meter apart.
- Please note that during your poster session, the author should stay by your poster paper to explain and discuss your paper with visiting delegates.

## 2026 国际制导、导航与控制学术会议程序一览表

|                                                                                                                      |                                                                                        |                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ICGNC 2026 Technical Program, Thursday, August 6, 2026                                                               |                                                                                        |                                                                                                                          |
| 14:00-20:00                                                                                                          | 1 <sup>st</sup> Floor, Conference Executive Lounge, Shangri-La Guilin (桂林香格里拉酒店 一层签到厅) | 注册/Registration                                                                                                          |
| ICGNC 2026 Technical Program, Friday, August 7, 2026                                                                 |                                                                                        |                                                                                                                          |
| 08:30-22:00                                                                                                          | 1 <sup>st</sup> Floor, Conference Executive Lounge, Shangri-La Guilin (桂林香格里拉酒店 一层签到厅) | 注册/Registration                                                                                                          |
| 09:00-11:40 Junior Ballroom, 2 <sup>nd</sup> Floor (桂林香格里拉酒店 2 层 漓江厅)                                                |                                                                                        |                                                                                                                          |
| (Chairs: <b>Tao Zhang</b> 张涛 Tsinghua University & <b>Shanlin Sun</b> 孙山林 Guilin University of Aerospace Technology) |                                                                                        |                                                                                                                          |
| <b>GNC National-level Model Teacher Forum(GNC 国家级教学名师论坛):</b> Innovation and Practice of GNC Education (GNC 教育创新与实践) |                                                                                        |                                                                                                                          |
| 09:00-09:40                                                                                                          | <b>Yu Yao</b> 姚郁 Harbin Engineering University                                         | TBD                                                                                                                      |
| 09:40-10:20                                                                                                          | <b>Junfei Qiao</b> 乔俊飞 Beijing University of Technology                                | Embodied Intelligence: A New Frontier for AI and Automation Education                                                    |
| 10:20-11:00                                                                                                          | <b>Shaoyuan Li</b> 李少远 Shanghai Jiao Tong University                                   | Reconstruction of the Systematic Curriculum Framework beyond the Fundamental Methods of Cybernetics                      |
| 11:00-11:40                                                                                                          | <b>Meiling Wang</b> 王美玲 Beijing Institute of Technology                                | TBD                                                                                                                      |
| 12:00-13:30                                                                                                          | 1 <sup>st</sup> Floor&2 <sup>nd</sup> Floor Shangri-La Guilin (桂林香格里拉酒店)               | 自助午餐/Lunch                                                                                                               |
| 14:00-17:40                                                                                                          | Junior Ballroom, 2 <sup>nd</sup> Floor (桂林香格里拉酒店 2 层 漓江厅)                              | (Chair: <b>Bin Jiang</b> 姜斌 Nanjing University of Aeronautics and Astronautics)                                          |
| <b>GNC Young Scientist Forum (GNC 青年科学家论坛):</b> Frontiering Technologies in GNC (GNC 领域前沿技术)                         |                                                                                        |                                                                                                                          |
| 14:00-14:20                                                                                                          | <b>Peng Cheng</b> 程鹏 Zhejiang University                                               | Industrial Internet Security: What Can Control Do?                                                                       |
| 14:20-14:40                                                                                                          | <b>Haichao Gui</b> 桂海潮 Beihang University                                              | TBD                                                                                                                      |
| 14:40-15:00                                                                                                          | <b>Huaping Liu</b> 刘华平 Tsinghua University                                             | A Synergy of Morphology, Action, Perception and Learning for Embodied Intelligence                                       |
| 15:00-15:20                                                                                                          | <b>Yajie Ma</b> 马亚杰 Nanjing University of Aeronautics and Astronautics                 | Task Reallocation Techniques for Flight Formation Systems                                                                |
| 15:20-15:40                                                                                                          | <b>Lei Ren</b> 任磊 Beihang University                                                   | Industrial Foundation Model, Embodied Intelligence Agents and Digital Genealogy: Driving Future Smart Industry           |
| 15:40-16:00                                                                                                          | <b>茶歇/Tea Break</b>                                                                    |                                                                                                                          |
| 16:00-16:20                                                                                                          | <b>Guanghui Wen</b> 温广辉 Southeast University                                           | Distributed Consensus and Optimization of Multi-Agent Systems with Switching Communication Topologies                    |
| 16:20-16:40                                                                                                          | <b>Jiande Wu</b> 吴建德 Yunnan University                                                 | Recent Advances in Time-Frequency Analysis for Fault Detection and Diagnosis of Complex Industrial Processes             |
| 16:40-17:00                                                                                                          | <b>Dongrui Wu</b> 伍冬睿 Huazhong University of Science and Technology                    | Adversarial Security of Brain-Computer Interfaces                                                                        |
| 17:00-17:20                                                                                                          | <b>Bin Xin</b> 辛斌 Beijing Institute of Technology                                      | Air-Ground Coordinated Last-Mile Delivery Optimization: Collaborative Vehicle-Drone Delivery Integrating Social Vehicles |
| 17:20-17:40                                                                                                          | <b>Yanlong Zhao</b> 赵延龙 Academy of Mathematics and Systems Science, CAS                | Identification and Control of Finite-Information Systems                                                                 |
| 18:00-20:00                                                                                                          | 1 <sup>st</sup> Floor&2 <sup>nd</sup> Floor Shangri-La Guilin (桂林香格里拉酒店)               | 自助晚餐/Dinner                                                                                                              |
| 20:30-22:00                                                                                                          | Junior Ballroom, 2 <sup>nd</sup> Floor (桂林香格里拉酒店 2 层 漓江厅)                              |                                                                                                                          |
| <b>TCGNC Member Meeting, CSAA (中国航空学会制导、导航与控制分会委员(含青年委员)工作会议)</b>                                                    |                                                                                        |                                                                                                                          |

## 2026 国际制导、导航与控制学术会议程序一览表

| ICGNC 2026 Technical Program, Saturday, August 8, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 08:30-09:00      Grand Ballroom, 1 <sup>st</sup> Floor（桂林香格里拉酒店 一层大宴会厅）<br>大会开幕式/Opening Ceremony    Chair: <b>Shanlin Sun</b> 孙山林<br>GNC 国际期刊优秀论文颁奖/GNC Best Paper Award Ceremony    Chairs: <b>Bin Jiang</b> 姜斌                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
| 09:00-12:00      Grand Ballroom,1 <sup>st</sup> Floor（桂林香格里拉酒店 一层大宴会厅）<br><b>Plenary Speech I（大会报告 I）</b> (Chair: <b>Yongqing Wang</b> 王永庆 中国工程院院士)<br>09:00-09:40 <b>Tianyou Chai</b> 柴天佑 中国工程院院士 Northeastern University<br><b>Plenary Speech II（大会报告 II）</b> (Chair: <b>Bin Jiang</b> 姜斌)<br>09:40-10:20 <b>Dengyun Yu</b> 于登云 中国科学院院士 China Aerospace Science and Technology Corporation                                                                                                                                                                                                                             |  |  |
| Intelligent Integrated System for Optimal Decision-making and Control Based on End-edge-cloud Collaboration<br>Lunar Exploration Program of China: Practice and Prospect                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| 10:20-10:40    茶歇/Tea Break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>Plenary Speech III（大会报告 III）</b> (Chair: <b>Jinhu Lü</b> 吕金虎)<br>10:40-11:20 <b>Lei Guo</b> 郭雷 中国科学院院士 Beihang University<br><b>Plenary Speech IV（大会报告 IV）</b> (Chair: <b>Dayi Wang</b> 王大轶)<br>11:20-12:00 <b>Dewen Hu</b> 胡德文 中国科学院院士 National University of Defense Technology                                                                                                                                                                                                                                                                                                                                     |  |  |
| Intelligent Flying Vehicles: From 'Ren-Gong' Intelligence to 'Niao-Gong' Intelligence<br>TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| 12:00-13:30    1 <sup>st</sup> Floor& 2 <sup>nd</sup> Floor Shangri-La Guilin (桂林香格里拉酒店)      自助午餐/Lunch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| 14:00-15:20      Grand Ballroom, 1 <sup>st</sup> Floor（桂林香格里拉酒店 一层大宴会厅）<br><b>Plenary Speech V（大会报告 V）</b> (Chair: <b>Shaoping Wang</b> 王少萍)<br>14:00-14:40 <b>Marios M. Polycarpou</b> Member of Academia Europaea University of Cyprus（Cyprus）<br><br><b>Plenary Speech VI（大会报告 VI）</b> (Chair: <b>Weiping Yang</b> 杨卫平)<br>14:40-15:20 <b>Dong Zhang</b> 张冬 AVIC Shenyang Aircraft Design and Research Institute                                                                                                                                                                                                      |  |  |
| From Feedback Control to Intelligent Resilience<br>Multi-Domain Warfare Reshapes Air Combat Systems-Prospect on the Development of Next-Generation Flight Control Technologies                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
| 15:20-15:45    茶歇/Tea Break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| 15:45-18:00      Junior Ballroom, 2 <sup>nd</sup> Floor (桂林香格里拉酒店 2 层 漓江厅) (Chair: <b>Yingxun Wang</b> 王英勋 <b>Beihang University</b> )<br>GNC Chief Designer Forum (GNC 总师论坛): <b>Human System Integration</b><br>15:45-16:00 <b>Chuanjian Liu</b> 刘传健 Civil Aviation Flight University of China<br>16:00-16:15 <b>Yongtao Peng</b> 彭永涛 AVIC Xi'an Flight Automatic Control Research Institute<br>16:15-16:30 <b>Xiaoming Zhao</b> 赵小明 Tianjin Navigation Instruments Research Institute<br>16:30-16:45 <b>Yang Fu</b> 付泐 AVIC Chengdu Aircraft Design and Research Institute<br>16:45-18:00 Interactive Discussion 互动交流 |  |  |
| Research on Key Technologies for Autonomous Take-off and Landing of Large Aircraft<br>TBD<br>Intelligent Practices and Prospects for Shiphandling System<br>Research and Reflection on Human-System Integration in Autonomous UAV Flight                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| 16:00-18:00      中国自动化学会导航制导与控制专业委员会年度工作会议（桂林香格里拉酒店 2 层北海厅）                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| 19:00-21:30      Grand Ballroom, 1 <sup>st</sup> Floor（桂林香格里拉酒店 一层大宴会厅）晚宴/Banquet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |

# 2026 国际制导、导航与控制学术会议程序一览表

ICGNC 2026 Technical Program, Sunday, August 9, 2026

|                                                                                                  |                                                     |                                                    |                                                     |                                                     |                                                     |                                          |                                                 |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|------------------------------------------|-------------------------------------------------|
| 08:00-10:00                                                                                      | 1 <sup>st</sup> Floor<br>VIP Room<br>1 层 贵宾厅        | 2 <sup>nd</sup> Floor<br>Yangshuo Room<br>2 层 阳朔厅  | 2 <sup>nd</sup> Floor<br>Lipu Room<br>2 层 荔浦厅       | 2 <sup>nd</sup> Floor<br>Nanning Room1<br>2 层 南宁厅 1 | 2 <sup>nd</sup> Floor<br>Nanning Room2<br>2 层 南宁厅 2 | 2 <sup>nd</sup> Floor<br>Aisel<br>2 层连廊厅 | 2 <sup>nd</sup> Floor<br>Beihai Room<br>2 层 北海厅 |
|                                                                                                  | A1<br>Dynamic GNC                                   | A2<br>Learning GNC                                 | A3<br>Precision GNC                                 | A4<br>Advanced GNC                                  | A5<br>Planning GNC                                  | A12<br>Poster Session 1                  | 08:00-12:15<br>A11<br>Best Paper (Oral)         |
|                                                                                                  | 2 <sup>nd</sup> Floor<br>Nanning Room3<br>2 层 南宁厅 3 | 2 <sup>nd</sup> Floor<br>Longsheng Room<br>2 层 龙胜厅 | 2 <sup>nd</sup> Floor<br>Guilin Room 1<br>2 层 桂林厅 1 | 2 <sup>nd</sup> Floor<br>Guilin Room 2<br>2 层 桂林厅 2 | 2 <sup>nd</sup> Floor<br>VIP Room 2<br>2 层 贵宾厅 2    |                                          |                                                 |
|                                                                                                  | A6<br>Autonomous GNC                                | A7<br>Formation GNC                                | A8<br>Intelligent GNC                               | A9<br>Recognition GNC                               | A10<br>Aircraft GNC                                 |                                          |                                                 |
| 10:00-10:15 茶歇/Tea Break                                                                         |                                                     |                                                    |                                                     |                                                     |                                                     |                                          |                                                 |
| 10:15-12:15                                                                                      | 1 <sup>st</sup> Floor<br>VIP Room<br>1 层 贵宾厅        | 2 <sup>nd</sup> Floor<br>Yangshuo Room<br>2 层 阳朔厅  | 2 <sup>nd</sup> Floor<br>Lipu Room<br>2 层 荔浦厅       | 2 <sup>nd</sup> Floor<br>Nanning Room1<br>2 层 南宁厅 1 | 2 <sup>nd</sup> Floor<br>Nanning Room2<br>2 层 南宁厅 2 | 2 <sup>nd</sup> Floor<br>Aisel<br>2 层连廊厅 |                                                 |
|                                                                                                  | B1<br>Robust GNC                                    | B2<br>Reinforcement GNC                            | B3<br>Vision GNC                                    | B4<br>Safety GNC                                    | B5<br>Flight GNC                                    | B12<br>Poster Session 2                  |                                                 |
|                                                                                                  | 2 <sup>nd</sup> Floor<br>Nanning Room3<br>2 层 南宁厅 3 | 2 <sup>nd</sup> Floor<br>Longsheng Room<br>2 层 龙胜厅 | 2 <sup>nd</sup> Floor<br>Guilin Room 1<br>2 层 桂林厅 1 | 2 <sup>nd</sup> Floor<br>Guilin Room 2<br>2 层 桂林厅 2 | 2 <sup>nd</sup> Floor<br>VIP Room 2<br>2 层 贵宾厅 2    |                                          |                                                 |
|                                                                                                  | B6<br>Optimization GNC                              | B7<br>Reliable GNC                                 | B8<br>Aerospace GNC                                 | B9<br>Automatic GNC                                 | B10<br>Hybrid GNC                                   |                                          |                                                 |
| 12:15-13:30 1 <sup>st</sup> Floor&2 <sup>nd</sup> Floor Shangri-La Guilin (桂林香格里拉酒店) 自助午餐/Lunch  |                                                     |                                                    |                                                     |                                                     |                                                     |                                          |                                                 |
| 13:30-15:30                                                                                      | 1 <sup>st</sup> Floor<br>VIP Room<br>1 层 贵宾厅        | 2 <sup>nd</sup> Floor<br>Yangshuo Room<br>2 层 阳朔厅  | 2 <sup>nd</sup> Floor<br>Lipu Room<br>2 层 荔浦厅       | 2 <sup>nd</sup> Floor<br>Nanning Room1<br>2 层 南宁厅 1 | 2 <sup>nd</sup> Floor<br>Nanning Room2<br>2 层 南宁厅 2 | 2 <sup>nd</sup> Floor<br>Aisel<br>2 层连廊厅 | 13:30-15:30<br>C12<br>Poster Session 3          |
|                                                                                                  | C1<br>Modeling GNC                                  | C2<br>Reasoning GNC                                | C3<br>Fault-tolerant GNC                            | C4<br>Collaborative GNC                             | C5<br>Prediction GNC                                | C12<br>Poster Session 3                  |                                                 |
|                                                                                                  | 2 <sup>nd</sup> Floor<br>Nanning Room3<br>2 层 南宁厅 3 | 2 <sup>nd</sup> Floor<br>Longsheng Room<br>2 层 龙胜厅 | 2 <sup>nd</sup> Floor<br>Guilin Room 1<br>2 层 桂林厅 1 | 2 <sup>nd</sup> Floor<br>Guilin Room 2<br>2 层 桂林厅 2 | 2 <sup>nd</sup> Floor<br>VIP Room 2<br>2 层 贵宾厅 2    |                                          |                                                 |
|                                                                                                  | C6<br>Fusion GNC                                    | C7<br>Perception GNC                               | C8<br>Cross-domain GNC                              | C9<br>Positioning GNC                               | C10<br>Adaptive GNC                                 |                                          |                                                 |
| 15:30-15:45 茶歇/Tea Break                                                                         |                                                     |                                                    |                                                     |                                                     |                                                     |                                          |                                                 |
| 15:45-17:45                                                                                      | 1 <sup>st</sup> Floor<br>VIP Room<br>1 层 贵宾厅        | 2 <sup>nd</sup> Floor<br>Yangshuo Room<br>2 层 阳朔厅  | 2 <sup>nd</sup> Floor<br>Lipu Room<br>2 层 荔浦厅       | 2 <sup>nd</sup> Floor<br>Nanning Room1<br>2 层 南宁厅 1 | 2 <sup>nd</sup> Floor<br>Nanning Room2<br>2 层 南宁厅 2 | 2 <sup>nd</sup> Floor<br>Aisel<br>2 层连廊厅 | 15:45-17:45<br>D12<br>Poster Session 4          |
|                                                                                                  | D1<br>Swarm GNC                                     | D2<br>Distributed GNC                              | D3<br>Aerospace GNC                                 | D4<br>Cooperative GNC                               | D5<br>Smart GNC                                     | D12<br>Poster Session 4                  |                                                 |
|                                                                                                  | 2 <sup>nd</sup> Floor<br>Nanning Room3<br>2 层 南宁厅 3 | 2 <sup>nd</sup> Floor<br>Longsheng Room<br>2 层 龙胜厅 | 2 <sup>nd</sup> Floor<br>Guilin Room 1<br>2 层 桂林厅 1 | 2 <sup>nd</sup> Floor<br>Guilin Room 2<br>2 层 桂林厅 2 | 2 <sup>nd</sup> Floor<br>VIP Room 2<br>2 层 贵宾厅 2    |                                          |                                                 |
|                                                                                                  | D6<br>Unmanned GNC                                  | D7<br>Pattern GNC                                  | D8<br>Classic GNC                                   | D9<br>Multi-agent GNC                               | D10<br>Confrontation GNC                            |                                          |                                                 |
| 18:00-20:00 1 <sup>st</sup> Floor&2 <sup>nd</sup> Floor Shangri-La Guilin (桂林香格里拉酒店) 自助晚餐/Dinner |                                                     |                                                    |                                                     |                                                     |                                                     |                                          |                                                 |

# 大会报告 (Plenary Speeches)

## 大会报告 I (Plenary Speech I)

Time: 09:00-09:40, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Yongqing Wang 王永庆 中国工程院院士

### Intelligent Integrated System for Optimal Decision-making and Control Based on End-edge-cloud Collaboration

Professor Tianyou Chai 柴天佑

Academician of Chinese Academy of Engineering

Northeastern University

#### Abstract

To address the challenges that online optimization of operational decision-making and control in complex industrial systems cannot be realized, this talk proposes a unified structure and algorithm for integrated operational optimal decision-making and control, by combining control, optimization, and prediction with AI technology. It also proposed a parameter self-learning and self-optimizing algorithm for operational optimal decision-making and control integrating systems, by combining mechanism analysis with deep learning, and digital twin with reinforcement learning. An intelligent integrated system for optimal decision-making and control based on end-edge-cloud collaboration is developed, by combining the proposed method and the end-edge-cloud collaboration technology of Industrial Internet. The system has been successfully applied in the energy intensive equipment—fused magnesium furnace and achieved remarkable results in the reduction of carbon emission.



**Tianyou Chai** received the Ph.D. degree in control theory and engineering in 1985 from Northeastern University, Shenyang, China, where he became a Professor in 1988. He is the founder and Director of the Center of Automation, which became a National Engineering and Technology Research Center and a State Key Laboratory. He is a member of Chinese Academy of Engineering, IFAC Fellow and IEEE Fellow. He has served as director of Department of Information Science of National Natural Science Foundation of China from 2010 to 2018. His current research interests include modeling, control, optimization and integrated automation and intelligence of complex industrial processes. He has published 396 peer reviewed international journal papers. His paper titled *Hybrid intelligent control for optimal operation of shaft furnace roasting process* was selected as one of three best papers for the Control Engineering Practice Paper Prize for 2011-2013. He has developed control technologies with applications to various industrial processes. For his contributions, he has won 5 prestigious awards of National Natural Science, National Science and Technology Progress and National Technological Innovation, the 2007 Industry Award for Excellence in Transitional Control Research from IEEE Multiple-conference on Systems and Control, and the 2017 Wook Hyun Kwon Education Award from Asian Control Association.

## 大会报告 II (Plenary Speech II)

Time: 09:40-10:20, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Bin Jiang 姜斌

### Lunar Exploration Program of China: Practice and Prospect

**Professor Dengyun Yu 于登云**

**Academician of Chinese Academy of Sciences**

**China Aerospace Science and Technology Corporation**

#### Abstract

Starting with an overview of lunar characteristics, this report is divided into three main sections. First, it examines global trends in lunar exploration, including the current landscape, recent hotspots, and future directions. Second, it highlights China's innovative practices in this field, focusing on engineering implementation and technological achievements. Finally, it outlines the future prospects of China's lunar exploration, detailing upcoming missions and the key technologies.



**Dengyun Yu**, Professor and PhD supervisor, is currently the deputy director of the Science and Technology Commission of China Aerospace Science and Technology Corporation, the chief designer of the fourth phase of the China Lunar Exploration Project, an academician of the Chinese Academy of Sciences, an academician of the International Academy of Astronautics, etc. He has been engaged in research and application of spacecraft system engineering, dynamics, and control technology, making significant contributions to China's major space missions such as lunar exploration, manned spaceflight, and high-resolution satellite engineering. He formerly served as Vice President of the China Academy of Space Technology, Leader of the Expert Committee for National 863 Program, Deputy Chief Designer of the China Lunar Exploration Project, Chief Designer of the Tianhui Satellite Series Project, Chief Engineer of Multiple Satellite Projects under the High Resolution Project, Chief Scientist of the National Defense 973 and 173 Projects, Deputy Leader of the National Deep Space Exploration Engineering Demonstration Group, Deputy Chief Technical Officer of the First Mars Exploration Project, Vice President of the International Astronautical Federation, and Chairman of the Satellite Commercial Application Committee of the International Astronautical Federation. Since 1993, he has been a recipient of the Special Government Allowance from State Council government and won two National Science and Technology Progress Special Awards, one First Prize and one Third Prize, two Provincial and Ministerial Science and Technology Progress First Prizes, one National Defense Technology Invention Second Prize, and the 7th China Youth Science and Technology Award. He has published 6 works, obtained 27 authorized invention patents, and published more than 100 papers. In 2020, he won the highest award of the International Astronautical Federation, the "World Space Award". In 2023, he was awarded the "Qian Xuesen Outstanding Contribution Award" by the China Aerospace Foundation.

## 大会报告 III (Plenary Speech III)

Time: 10:40-11:20, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Jinhu Lü 吕金虎

### Intelligent Flying Vehicles: From 'Ren-Gong' Intelligence to 'Niao-Gong' Intelligence

Professor Lei Guo 郭雷

Academician of Chinese Academy of Sciences  
Beihang University

#### Abstract

The technical challenges of intelligent flying vehicles lie in breaking through the limitations of 'predefined tasks, ideal environments, and deterministic modes'. It embodies the ability to survive, adaptive, and evolution under high dynamic, strong adversarial constraints, as well as in environments with multiple disturbance and uncertainty, achieving the systematic goal of being 'intelligent in the brain, clear-sighted in the eyes, dexterous in the hands, and robust in the body' like a bird. This report introduces the theoretical, technical, and applied research progress made by our team in the core technologies of bionic intelligence in aerospace ("Niao-Gong" Intelligence), including bionic navigation, bionic manipulation, and bionic system evolution. It also looks forward to the development prospects of safe, green, and evolutionary bionic intelligence systems in the low-altitude industry.



**Lei Guo**, Academician of the Chinese Academy of Sciences and Chief Professor at Beihang University. IEEE/IET Fellow, and Vice Chairman of the China Instrumentation and Control Society. He has long been engaged in research on anti-disturbance control theory and applications of bionic intelligent systems, publishing over 520 SCI/EI papers and obtaining more than 180 authorized invention patents. His theoretical achievements have been successfully applied to multiple major aerospace missions in China. As the first completionist, he has received academic awards such as the Second Prize of National Natural Science, Second Prize of National Technological Invention, First Prize of Ministry of Education Natural Science, First Prize of Ministry of Education Technological Invention, First Prize of National Defense Technological Invention, and the National Innovation Excellence Award. Since 2012, he has successively been elected as a representative of the 14th and 15th Beijing Municipal People's Congress and a representative of the 14th National People's Congress.

## 大会报告 IV (Plenary Speech IV)

Time: 11:20-12:00, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Dayi Wang 王大轶

**TBD**

**Professor Dewen Hu 胡德文**

**Academician of Chinese Academy of Sciences**

**National University of Defense Technology**

### Abstract

TBD



**Dewen Hu** is an Academician of the Chinese Academy of Sciences, a Professor and Ph.D. Supervisor at the College of Intelligent Science, National University of Defense Technology. He has long been engaged in research on brain cognitive pattern recognition, making systematic and pioneering contributions to the fields of spatiotemporal analysis of brain signals, mechanisms of brain functional connectivity, and brain-computer collaborative control. He is a recipient of the “National Science Fund for Distinguished Young Scholars” and serves as a “Distinguished Professor under the Changjiang Scholars Program” of the Ministry of Education of China. He has also received numerous prestigious honors, including the title of “National Outstanding Scientific and Technological Worker”, the “National Award for Excellence in Innovation”, and the “Wu Wenjun AI Outstanding Contribution Award”.

## 大会报告 V (Plenary Speech V)

Time: 14:00-14:40, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Shaoping Wang 王少萍

### From Feedback Control to Intelligent Resilience

**Professor Marios M. Polycarpou**

**University of Cyprus, Cyprus**

#### Abstract

The development of cyber-physical systems with multiple sensor/actuator components and feedback loops has given rise to advanced automation applications, including energy and power, intelligent transportation, water systems, manufacturing, etc. Traditionally, feedback control has focused on enhancing the tracking and robustness performance of the closed-loop system; however, as cyber-physical systems become more complex and interconnected and more interdependent, there is a need to refocus our attention not only on performance but also on the resilience of cyber-physical systems. In situations of unexpected events and faults, artificial intelligence and machine learning can play a key role in improving the fault tolerance of cyber-physical systems and preventing serious degradation or a catastrophic system failure. The goal of this presentation is to provide insight into the design and analysis of intelligent monitoring methods for cyber-physical systems, which will ultimately lead to more resilient societies.



**Marios M. Polycarpou** is a Professor of Electrical and Computer Engineering and the Chair of the Board of the KIOS Research and Innovation Center of Excellence at the University of Cyprus. He is also a Founding Member of the Cyprus Academy of Sciences, Letters, and Arts, an Honorary Professor of Imperial College London, and a Member of Academia Europaea (The Academy of Europe). He served as Founding Chair of the Department of Electrical and Computer Engineering and Founding Director of the KIOS Center of Excellence at the University of Cyprus. Prof. Polycarpou is the recipient of the 2023 IEEE Frank Rosenblatt Technical Field Award and the 2016 IEEE Neural Networks Pioneer Award for contributions to the theory and application of neural networks and learning systems in monitoring and control. He is a Fellow of IEEE and IFAC. He served as the President of the IEEE Computational Intelligence Society (2012-2013), as the President of the European Control Association (2017-2019), and as the Editor-in-Chief of the IEEE Transactions on Neural Networks and Learning Systems (2004-2010). Prof. Polycarpou currently serves on the Editorial Boards of the Proceedings of the IEEE and the Annual Reviews in Control. His research work has been funded by several agencies and industry in Europe and the United States, including the prestigious European Research Council (ERC) Advanced Grant, the ERC Synergy Grant and the EU-Widening Teaming program.

## 大会报告 VI (Plenary Speech VI)

Time: 14:40-15:20, August 8, 2026

Venue: Grand Ballroom, 1st Floor

(桂林香格里拉酒店 一层大宴会厅)

Chair: Weiping Yang 杨卫平

### **Multi-Domain Warfare Reshapes Air Combat Systems: Prospect on the Development of Next-Generation Flight Control Technologies**

**Professor Dong Zhang 张冬**

**AVIC Shenyang Aircraft Design and Research Institute**

#### **Abstract**

This report focuses on multi-domain warfare and its transformative impact on modern air combat systems. It systematically analyzes the changes and new demands brought by multi-domain combat scenarios to traditional air combat frameworks. On this basis, it further explores the development trends, technical orientations and application prospects of next-generation flight control technologies adapted to such combat environments.



**Dong Zhang** is the deputy chief designer and researcher in the professional field at AVIC Shenyang Aircraft Design and Research Institute, and chief expert of the AVIC. He is mainly engaged in the design of flight control systems for manned fighter aircraft and unmanned combat aircraft. He served as the chief designer for multiple national key flight control systems, and has won National Defense Technology Invention Award, and National Defense Science and Technology Progress Award for several times.

# 总师论坛 Chief Designer Forum

## Human System Integration 人与系统综合

Time: 15:45-18:00, August 8, 2026

Venue: Junior Ballroom, 2<sup>nd</sup> Floor  
(桂林香格里拉酒店 2 层 漓江厅)

Chair: Yingxun Wang 王英勋

人与系统综合 (Human System Integration, HSI) 是系统工程的核心分支, 把人作为系统不可分割的核心要素, 在全生命周期中把人的能力、局限、需求与系统的硬件、软件、组织深度融合, 实现整体系统性能最优与全生命周期成本最低, 有着广阔的发展前景。本论坛邀请来自于航空、航天、航海领域的4位知名总师将分享他们在各领域中有HSI在典型工程中问题的解决之道。来自一线总师们的倾情讲述和与现场互动, 将向大家揭示HSI工程创新中蕴含的科学道理。

Human System Integration (HSI) is a core branch of system engineering that treats humans as an inseparable and essential element of the system. By deeply integrating human capabilities, limitations, and needs with hardware, software, and organizational aspects throughout the entire lifecycle, HSI aims to achieve optimal system performance and minimize lifecycle costs, offering broad prospects for development. This forum invites four renowned chief engineers from aviation, aerospace, and maritime fields to share their insights on solving typical HSI challenges in real-world engineering projects. Through heartfelt presentations and interactive discussions with the audience, the experts will reveal the scientific principles underlying innovation in HSI engineering.

### About the Chair

**Professor Yingxun Wang 王英勋**

Beihang University, China



**Yingxun Wang** is a professor and doctoral supervisor in Beihang University, Beijing, China. He is the council member of China Society of Aeronautics and Astronautics, the director of UAV system professional group in China AOPA UAV professional committee, and the appointed representative of UAV driver. He used to be director of UAV Office in Aviation Industry Corporation of China (AVIC). He is engaged in autonomous control of UAV, key model development and project management, and served as the deputy chief designer and chief designer. He has obtained IPMP senior project manager qualification and INCOSE Certified System Engineer lecturer. He won the first prize of national science and technology progress (R3), the outstanding young engineer of Beijing, the pacesetter of economic and technological innovation of Beijing, and the gold medal of AVIC.

# Research on Key Technologies for Autonomous Take-off and Landing of Large Aircraft

**Professor Chuanjian Liu 刘传健**  
**Civil Aviation Flight University of China**

## Abstract

This report focuses on the core research regarding autonomous take-off and landing of large aircraft. It analyzes the current research status and practical demands of relevant supporting technologies. It also explores technical difficulties and feasible solutions in this field, and discusses the development directions and practical application prospects of these key technologies.



**Chuanjian Liu** is the Chief Flight Instructor of the Civil Aviation Flight University of China (CAFUC), and a deputy to the 14th National People's Congress. He is an expert in civil aviation flight safety and pilot training. Widely known as the "Hero Captain of China," he successfully commanded the emergency landing of Sichuan Airlines Flight 3U8633 in 2018 under extremely hazardous conditions, ensuring the safe evacuation of all 128 passengers and crew. He has been dedicated to advancing flight safety, emergency response, and pilot education, making significant contributions to the development of China's civil aviation industry. He has received numerous national honors, including the title of Hero Captain of Chinese Civil Aviation, the National May 1 Labor Medal, National Outstanding Communist Party Member, and The Most Beautiful Veteran.

**TBD**

**Professor Yongtao Peng 彭永涛**

**AVIC Xi'an Flight Automatic Control Research Institute**

**Abstract**

TBD



**Yongtao Peng**, a doctoral graduate in Navigation, Guidance and Control from the China Academy of Aeronautical Sciences. Currently, he is the Chief Engineer and Deputy Director of the Automation and Control Institute of Aviation Industry. He is mainly engaged in the research and product development of flight control systems. He has participated in the development of multiple key weapons equipment models of the state and several independent control technologies. Over the years, he has led the team to break through a series of key technologies, achieving several domestic firsts in the GNC field, making significant contributions to the cross-generation development of flight control technology. He has successively received the First Prize of National Defense Science and Technology Progress Award once, the Third Prize once, 15 Group Awards, and 3 Merits.

# Intelligent Practices and Prospects for Shiphhandling System

**Professor Xiaoming Zhao 赵小明**

**Tianjin Navigation Instruments Research Institute, CSSC**

## Abstract

This report provides a comprehensive overview of the intelligent development of shiphhandling systems. It begins by reviewing the evolutionary trajectory of these systems—from electrification, through automation and networking, to the current stage of intelligence—while clearly defining the core connotations of intelligent shiphhandling. Subsequently, it highlights key challenges currently impeding the development of intelligent shiphhandling: insufficient perceptual capability under adverse sea conditions, difficulties in multimodal information fusion, significant complexities in decision-making under complex scenarios, and persistent bottlenecks in ship modelling and high-precision control algorithm design under special operating conditions.

The report also details practical achievements to date, including successful real-vessel tests of autonomous collision avoidance, automatic berthing and unberthing, and other functions in scenarios such as open waters and confined waterways. Finally, it offers a forward-looking perspective, outlining future efforts that will focus on deep integration of multisource information, large-model-based decision-making in the navigation domain, and other technologies. The ultimate goal is to develop a highly autonomous, safe, and reliable autonomous shiphhandling system capable of operating across all sea areas, thereby contributing to the construction of a maritime powerhouse.



**Xiaoming Zhao**, Male, Ph.D., Professor / Doctoral Supervisor. Chief Expert of China State Shipbuilding Corporation Limited (CSSC), recipient of the Special Government Allowance of the State Council. His main research fields include ship navigation and precision instruments. He has long been engaged in research on inertial navigation technology, and the inertial navigation products he developed have been applied in major national projects such as navigation satellites and large vessels. He serves as the Chief Project Manager of National Key Research and Development Programs and has led/participated in multiple major national special projects. He has published four academic monographs and received more than ten provincial and ministerial-level science and technology awards.

# **Research and Reflection on Human-System Integration in Autonomous UAV Flight**

**Professor Yang Fu 付泱**

**AVIC Chengdu Aircraft Design and Research Institute**

## **Abstract**

Aiming at the autonomous flight of unmanned aerial vehicles, this report will analyze the task characteristics of the human operation at the ground station and discuss it from the perspective of the integration of humans and systems. Furthermore, new challenges in the integrated aspects of humans and systems which could be foreseen will be considered.



**Yang Fu** is a researcher from the AVIC Chengdu Aircraft Design and Research Institute, serving as the deputy chief designer for the unmanned aerial vehicles. He has been engaged in the design and research of unmanned aircraft communication, navigation and control for a long time. He has received three provincial and ministerial-level first prizes for scientific and technological achievements.

# **GNC 国家级教学名师论坛**

## **GNC National-level Model Teacher Forum**

### **GNC 教育创新与实践**

#### **Innovation and Practice of GNC Education**

Time: 09:00-11:40, August 7, 2026

Venue: Junior Ballroom, 2<sup>nd</sup> Floor

(桂林香格里拉酒店 2 层 漓江厅)

Chairs: Tao Zhang 张涛 & Shanlin Sun 孙山林

科技创新，教育为本。制导、导航与控制（GNC）学科的创新人才培养是我国在GNC领域蓬勃发展的重要基础和关键。本届制导、导航与控制教学名师论坛非常荣幸地邀请了来自国内著名高校的4位国家级教学名师作特邀报告，国家教学名师们将与我们分享现代GNC教育中的新模式、新理念和新方法，以及他们在教育实践中的宝贵经验和体悟。

Education is to last for the scientific and technological innovation generations. The cultivation of innovative talents in the discipline of guidance, navigation and control (GNC) plays a significant role in the vigorous development of GNC in China. GNC Model Teacher Forum invites four national model teachers to share the innovation patterns, concepts and methodologies in modern GNC education, as well as their valuable experience and understanding in educational practice.

#### **About the Chairs**

##### **Professor Tao Zhang 张涛**

Tsinghua University



Tao Zhang, PhD, Professor, Deputy Dean of School of Information Science and Technology, Head of Department of Automation, Tsinghua University. He is a member of Electronic Science and Technology Committee of Ministry of Industry and Information Technology, Invited Expert of Ministry of Science and Technology. He is IEEE/IET/AAIA/CAA Fellow, Member of IFAC Technical Committee of Robotics, AIAA member, Technical Editor of IEEE/ASME Transactions on Mechatronics, Associate Editor of IEEE Transactions on Automation Science and Engineering, Associate Editor of IEEE Robotics and Automation Letters. He is a council member of Chinese

Association of Automation, a council member of Chinese Association for Artificial Intelligence, a council member of China Simulation Federation, director of Education Committee of Chinese Association of Automation, a member of Guidance, Navigation and Control Branch of Chinese Society of Aeronautics and Astronautics. The main research fields are robotics, artificial intelligence, navigation and control, etc. He has presided over or participated in more than 30 research projects, such as national 863 projects, national 973 projects and National Natural Science Foundation. More than 200 papers have been published in the past decade. He has published more than 10 academic monographs, translated works and edited textbooks, and obtained more than 30 domestic authorized invention patents. He has won the National Teaching Achievement award, Graduate Teaching Achievement Award of China Academic Degree and Graduate Education Association, Education Achievement Award of Chinese Association of Automation, Beijing Teaching Achievement Award, Natural Science Award of Ministry of Education, Beijing Science and Technology Progress Award, Military Science and Technology Progress Award, Natural Science Award of Chinese Association of Automation and Electronic Information Science and Technology Award of Chinese Institute of Electronics, etc.

**Professor Shanlin Sun 孙山林**

Guilin University of Aerospace Technology



Shanlin Sun, PhD, Professor, President of Guilin University of Aerospace Technology, Director of the Key Laboratory of Low-altitude Unmanned Autonomous Systems in Guangxi, Director of the Guangxi Small Unmanned Aircraft Application Engineering Research Center, Head of the Guangxi Aerospace Unmanned Aircraft Technology Application Academician Workstation, Member of the Technical Committee on Navigation, Guidance and Control (TCNGC), Chinese Society of Aeronautics and Astronautics, Executive Director of the Low-altitude Economy Branch of the Chinese Vocational Education Society. He has been engaged in research on key technologies and applications of unmanned aircraft systems for a long time. He has successfully led and participated in 3 National Natural Science Foundation projects, one 973 Project of the Ministry of Science and Technology, 7 major/important scientific and technological projects in Guangxi, and over 10 enterprise technology research projects. He has solved many technical problems for the unmanned aircraft industry. He has published over 80 papers, among which 40 are indexed by SCI. He has obtained 12 invention patents. His research achievements have won the Special Prize of the Geneva International Invention Exhibition, the Second/Third Prize of Guangxi Science and Technology Progress Award, and the First Prize of Beijing Technology Invention Award. The teaching achievements he has led and participated in have respectively won two first prizes and three second prizes of the Higher Education Teaching Awards of Guangxi..

**TBD**

**Professor Yu Yao 姚郁**  
**Harbin Engineering University**

**Abstract**  
TBD



**Yu Yao** is a Professor and Ph.D. Supervisor at the College of Intelligent Science and Engineering, Harbin Engineering University (HEU), and former President & Deputy Party Secretary of HEU. He is a Yangtze River Distinguished Professor, a national-level expert in the "Hundred-Thousand-Ten Thousand Talents Program", and a distinguished young expert with outstanding contributions to national defense science and technology, receiving special government allowance. His research interests include aircraft navigation, guidance and control, hardware-in-the-loop simulation, and high-performance servo systems. He received the National Science and Technology Progress Award (Second Class) and the China Youth Science and Technology Award.

# Embodied Intelligence: A New Frontier for AI and Automation Education

**Professor Junfei Qiao 乔俊飞**

**Beijing University of Technology**

## Abstract

This talk presents a systematic analysis of embodied intelligence, covering its technological evolution, industrial landscape, and implications for higher education. As a paradigm shift from disembodied AI to physical-world interaction, embodied intelligence represents both a new form of AI empowering diverse sectors and an advanced stage of automation. Given the aggressive deployment by global tech giants, the strategic prioritisation of embodied intelligence in China's 15th Five-Year Plan, and the widening talent gap, the establishment of embodied intelligence major has become an urgent necessity. The talk advocates for the development of the embodied intelligence major centred on the closed-loop “perception–decision–action” paradigm, leveraging information disciplines to cultivate talents with composite “AI + physical systems + scenarios” expertise. It proposes a “major + micro-major” structure, project-based learning with real-world challenges, and industry-integrated virtual-physical training platforms. Looking forward, education should shift from knowledge transmission to cognitive shaping, foster open educational communities, and embrace the emerging frontier of human-machine symbiosis.



**Junfei Qiao** received the Ph.D. degree in control theory and control engineering from Northeastern University, Shenyang, China, in 1998. He is currently a Professor with the School of Information Science and Technology, Beijing University of Technology, Beijing, China, and he is also the President of Beijing University of Technology. As a pioneer in the field of smart environmental protection, he is the Principal Investigator of the Innovative Research Group Project of the National Natural Science Foundation of China. He is a Distinguished Professor of the Changjiang Scholars Program and a recipient of the National Science Fund for Distinguished Young Scholars. He currently serves as a member of the Academic Degree Committee of the State Council, Vice Chairman of the Teaching Steering Committee of the Ministry of Education, a member of the Science and Technology Committee of the Ministry of Education, Director of the Beijing Smart Environmental Protection Laboratory, and Director of the Engineering Research Center of Intelligent Perception and Autonomous Control of the Ministry of Education. His research interests include computational intelligence, intelligent optimization control, and smart environmental protection.

# Reconstruction of the Systematic Curriculum Framework beyond the Fundamental Methods of Cybernetics

Professor Shaoyuan Li 李少远

Shanghai Jiao Tong University

## Abstract

This report outlines the historical development of cybernetics and artificial intelligence, as well as their interrelationship. In today's era of rapid AI advancement, industrial applications require AI solutions tailored to the unique characteristics of industry. Algorithms and models developed for commercial or general-purpose use are often unsuitable for industrial settings. Effective application of AI in industry relies on automation professionals' deep understanding of industrial systems, along with practical engineering experience and methodologies. Automation experts thus hold a distinct advantage in industrial AI deployment. As future industrial automation increasingly shifts toward AI integration, the focus will be on integrating AI with industrial environments and control tasks. Talent development in this area is crucial and may position automation professionals to dominate specific market segments, leveraging their strengths effectively.



**Shaoyuan Li**, the Chair Professor at Shanghai Jiao Tong University, former Vice President of Qingdao University of Science and Technology. His main research interests include adaptive predictive control, satisfactory optimization control, and optimization control for production process systems in networked distributed systems. His key achievements have earned him the First Prize of Shanghai Natural Science Award (first author) in 2006, the Second Prize of the First Yang Jiachi Science and Technology Award in 2010, the First Prize of Natural Science from the Chinese Association of Automation (first author) in 2016, the Second Prize of National Natural Science Award (second author) in 2017, the Special Prize of Shanghai Teaching Achievement Award (first author) in 2017, and the First Prize of National Teaching Achievement Award (first author) in 2018. He also received the First Prize of Shanghai Science and Technology Progress Award (first author) in 2022. In 2008, he was awarded the National Outstanding Youth Fund and selected as a national-level teaching master under the “Ten Thousand Talents Program”, leveraging his strengths to contribute significantly.

**TBD**

**Professor Meiling Wang 王美玲**

**Beijing Institute of Technology**

**Abstract**

TBD.



**Meiling Wang** is a Professor and Ph.D. Supervisor at the School of Automation, Beijing Institute of Technology (BIT). She currently serves as Director of the Academic Affairs Office & Admissions Office. She is a Yangtze River Distinguished Professor, a national leading talent, and a Beijing Distinguished Teacher, receiving special government allowance. Her research interests include integrated & intelligent navigation, novel sensor technology, and automation device detection. She has received one First Prize and two Second Prizes of National Science and Technology Award, the National Teaching Achievement Second Prize, and the Baosteel Outstanding Teacher Special Award. She serves on the Electrical Engineering Teaching Advisory Board of the Ministry of Education, presides over NSFC major instrument projects, has published over 30 papers, and holds more than 10 patents.

**GNC 青年科学家论坛**  
**GNC Young Scientist Forum**  
**GNC 领域前沿技术**  
**Frontiering Technologies in GNC**

Time: 14:00-17:40, August 7, 2026  
Venue: Junior Ballroom, 2<sup>nd</sup> Floor  
(桂林香格里拉酒店 2 层 漓江厅)  
Chair: Bin Jiang 姜斌

青年是科技创新的主力军，为激发青年科技工作者在GNC领域的创新活力，本届国际会议邀请了10位杰出青年才俊，将围绕GNC学科领域的前沿热点和关键技术展开研讨和切磋，为广大青年科技工作者提供一个科技榜样引领示范和高端的GNC学术交流平台。

Youth is the main force of scientific and technological innovation. In order to stimulate the creativity of young scientist in the field of guidance, navigation and control (GNC), this forum invites ten outstanding young scientists to discuss the research focus of frontier fields and key technologies in the field of GNC, which aiming to provide a scientific and technological example demonstration and a high-level GNC academic exchange platform to the young scientists.

**About the Chair**

**Professor Bin Jiang 姜斌**

Nanjing University of Aeronautics and Astronautics



**Bin Jiang** received the Ph.D. degree in Automatic Control from Northeastern University, Shenyang, China, in 1995. He had ever been postdoctoral fellow, research fellow, invited professor and visiting professor in Singapore, France, USA and Canada, respectively. Now he is a Chair Professor of Cheung Kong Scholar Program in Ministry of Education and President of Nanjing University of Aeronautics and Astronautics, China. He serves as Associate Editor or Editorial Board Member for a number of journals such as IEEE Trans. On Cybernetics; IEEE Trans. On Control Systems Technology, Neurocomputing; Journal of Astronautics, etc. He is a Fellow of IEEE, Chair of Control Systems Chapter in IEEE Nanjing Section, a member of IFAC Technical Committee on Fault Detection, Supervision, and Safety of Technical Processes. His research interests include fault diagnosis and fault tolerant control and their applications to helicopters, satellites and high-speed trains. He has been the principle investigator on several projects of National Natural Science Foundation of China. He is the author of 8 books and over 100 referred international journal papers. He won Second Class Prize of National Natural Science Award of China in 2018.

# Industrial Internet Security: What Can Control Do?

**Professor Peng Cheng 程鹏**

**Zhejiang University**

## Abstract

We will first review the emergence and development of industrial internet, which is revolutionizing the industry and our life. After discussing the industrial internet architecture, we will reveal the inevitable underlying vulnerabilities via analyzing the specific features. We will get back to the fundamental control layer of industrial internet, and explain its importance of converging security and safety via concrete examples. We will demonstrate how various core control devices and protocols are insecure. Moreover, we discuss how to protect industrial internet through the most recent research.



**Peng Cheng** is currently Dean, and Changjiang Chair Professor for college of control science and engineering, Zhejiang University. His research interests include industrial internet security, cyber-physical systems, and cloud networking. He has been awarded National State Science and Technology Progress Award, Natural Science Award of Ministry of Education, Youth Science Award of the Ministry of Education, CAA Science and Technology Progress Award. His research received TDSC'24 best paper runner-up award. ACSAC'23 distinguished paper award, IEEE INFOCOM'14 best demo award and IEEE ICC'14 best paper award. He was awarded China Youth Science and Technology Award, FYT Foundation Young Teacher, JSPS Invitation Fellowship, IEEE ComSoc Asia Pacific Outstanding Young Researcher Award. He serves/served as Associate Editor of IEEE Transactions on Cloud Computing, IEEE Transactions on Control of Network Systems, Guest Editor of IEEE Transactions on Automatic Control, and vice directors of CAA Committee for Industrial Control System Security, and CAA Committee for Process Control.

**TBD**

**Professor Haichao Gui 桂海潮**

**Beihang University**

**Abstract**

TBD



**Haichao Gui** is a Professor and Ph.D. Supervisor at the School of Astronautics, Beihang University (BUAA), Vice Director of the Institute of Embodied Intelligent Robotics, and Director of the Key Laboratory of Ministry of Education for Spacecraft Design Optimization & Dynamic Simulation Technologies. He is a Shenzhou-16 Astronaut and Payload Specialist. His research interests include spacecraft dynamics and control, space robotics, and navigation technology. He has presided over more than 20 national projects and published over 80 papers. His honors include the Hero Astronaut, Third-Class Space Merit Medal, China Youth May Fourth Medal, China Youth Science and Technology Award, and he was selected as one of the National Most Beautiful Science and Technology Workers in 2026.

# **A Synergy of Morphology, Action, Perception and Learning for Embodied Intelligence**

**Professor Huaping Liu 刘华平**  
**Tsinghua University**

## **Abstract**

Embodied intelligence emphasizes that the intelligence is affected by the tight coupling of brain, body, and environment. It is continuously and dynamically generated through the process of information perception and physical interaction with the environment. During the past years, the research scope of embodied intelligence has also been expanding and has attracted great attention from various communities. At the same time, a huge number of works relevant to embodied intelligence have been proposed, especially in recent years. In this article, we present a comprehensive survey of embodied intelligence from the perspective that it is a synergy of morphology, action, perception, and learning, providing a thorough summary and categorization of existing studies. Specifically, as embodied intelligence is a synergy of all these components rather than themselves alone, we mainly focus on the connections across these four components (morphology, action, perception, and learning) and identify areas where future research can benefit from their intrinsic connections.



**Huaping Liu** received the Ph.D. degree from Tsinghua University, Beijing, China, in 2004. He is currently a Professor with the Department of Computer Science and Technology, Tsinghua University. His research interests include robot perception and learning. Dr. Liu was a recipient of the National Science Fund for Distinguished Young Scholars. He served as the Area Chair for Robotics Science and Systems for several times. He is a Senior Editor of the International Journal of Robotics Research.

# Task Reallocation Techniques for Flight Formation Systems

Professor Yajie Ma 马亚杰

Nanjing University of Aeronautics and Astronautics

## Abstract

With the increasing complexity of flight environments and the growing diversity of mission requirements, a single aircraft is no longer sufficient to reliably accomplish high-precision tasks. Inspired by the autonomy and intelligence observed in biological swarms, cooperative operation of multiple aircraft has therefore attracted extensive attention. Flight formation systems are highly interconnected and complex, requiring each vehicle to maintain a high level of reliability and safety. Malicious attacks on individual aircraft or internal faults within the formation can significantly degrade mission performance. Moreover, due to the interconnection among aircraft, a faulty individual may pose a threat to neighboring aircraft or even to the stability of the entire formation, thereby undermining the benefits of cooperative operation. This report focuses on fault-related challenges in flight formation systems and presents recent research progress on game-theoretic task reallocation methods.



**Yajie Ma** is a Professor and Ph.D. Supervisor, a Young Scholar of the National Major Talent Program, Distinguished Young Scholar of MIIT, Jiangsu Distinguished Young Scholar, and Jiangsu Excellent Young Scholar. He received his Ph.D. degree from Nanjing University of Aeronautics and Astronautics in 2015 and was exceptionally promoted to Professor and Ph.D. Supervisor in 2021. He has long been engaged in research on aircraft fault diagnosis and fault-tolerant control. He has published more than 90 academic papers in leading journals, including AIAA Journal of Guidance, Control, and Dynamics, IEEE Transactions, Science China, Acta Automatica Sinica, and Acta Aeronautica et Astronautica Sinica. He serves as the Deputy Director of the Jiangsu Key Laboratory of "Low-Altitude Intelligent Internet of Things and Autonomous Safety Control" and is an Editorial Board Member for Drones. He also serves as a Youth Editorial Board Member for journals including Systems Engineering and Electronics and the Journal of Astronautics. Additionally, he acts as the Deputy Secretary-General of the Technical Committee on Fault Diagnosis and Safety of Technical Processes. He has presided over projects that received the First Prize of the Natural Science Award of CAA, the First Prize of Science and Technology of the Jiangsu Association of Automation, and the Jiangsu Association of Automation Young Scientist Award. He has also participated in projects awarded the First Prize of the Jiangsu Science and Technology Award, the First Prize of the National Defense Science and Technology Progress Award, and the First Prize of the Teaching Achievement Award of CAA. He has supervised students who have won the Feng Ru Best Paper Award at the International Conference on Guidance, Navigation, and Control on two occasions.

# Industrial Foundation Model, Embodied Intelligence Agents and Digital Genealogy: Driving Future Smart Industry

**Professor Lei Ren 任磊**

**Beihang University**

## Abstract

This report focuses on industrial foundation models, embodied intelligence agents and digital genealogy. It analyzes the core characteristics and practical values of these three key elements respectively. It further explores their integration modes, and discusses how they jointly empower and promote the innovative development of future smart industry.



**Lei Ren** is a second-level professor, Blue Sky Distinguished professor, and Ph.D. supervisor at Beihang University (BUAA), jointly appointed by the School of Automation and the School of Software. He is the first recipient of the National Science Fund for Distinguished Young Scholars in industrial internet, Chief Scientist of the National Key R&D Program on Industrial Software, and Chairman of the Special Committee of the National Key Laboratory of Complex Product Intelligent Manufacturing System Technology. His research interests include industrial internet and intelligent manufacturing, industrial software and operating systems, industrial AI foundation models, digital twins and industrial metaverse. He has presided over more than 20 national projects such as the NSFC Major Research Program and the National Key R&D Program, published over 100 papers in IEEE Transactions, and received first and second prizes of provincial/ministerial science and technology awards.

# Distributed Consensus and Optimization of Multi-Agent Systems with Switching Communication Topologies

Professor Guanghui Wen 温广辉

Southeast University

## Abstract

In recent years, the development of perception, communication, and embedded technologies has had a transformative impact on system analysis and control methods. Modern engineering control systems are increasingly characterized by networked structures and intelligent units. Within this context, the concept of multi-agent systems (MASs) has emerged, and the distributed cooperative control and optimization of such systems have gradually become a research frontier in the fields of systems and control. In practice, due to factors such as the limited communication range of agents and interference in communication links, the communication topology of MASs often exhibits dynamic switching characteristics. This talk begins by discussing the key issues of consensus control in MASs under switching communication topologies, outlining the critical techniques for addressing these problems: the common Lyapunov function method and the multiple Lyapunov function method. For MASs with directed switching communication topologies, it presents the construction methods and consensus criteria of multiple Lyapunov functions based on nonsingular M-matrix theory, and further explores low-conservatism multiple Lyapunov function construction methods based on Lyapunov inequalities and optimization techniques. On this basis, the robust optimization problems of MASs with physical dynamics under switching communication topologies are discussed. Finally, the application of the related theoretical results in the formation control of unmanned surface vessels is shared, along with personal insights on related emerging research topics.



**Guanghui Wen** received his Ph.D. degree in Mechanical Systems and Control from Peking University, Beijing, China, in 2012. He is currently an Endowed Chair Professor and the Vice Dean of the School of Automation at Southeast University, Nanjing, China. His current research interests include coordination control of autonomous intelligent systems, analysis and synthesis of complex networks, cyber-physical systems, resilient control, and distributed reinforcement learning. He has published more than 200 papers, including more than 200 publications in top-tier journals in the fields of systems and control (TAC, Automatica, etc.), as well as CCF-A conferences including AAAI, IJCAI. Prof. Wen was the recipient of the National Science Fund for Distinguished Young Scholars, the China Youth Science and Technology Award, the Australian Research Council Discovery Early Career Researcher Award, and the Asia Pacific Neural Network Society Young Researcher Award. He currently serves as a Technical Editor of the IEEE/ASME Transactions on Mechatronics and an Associate Editor of the IEEE Transactions on Industrial Informatics, the IEEE Transactions on Neural Networks and Learning Systems, the IEEE Transactions on Intelligent Vehicles, the IEEE Transactions on Fuzzy Systems, the IEEE Transactions on Systems, Man and Cybernetics: Systems, the IEEE Open Journal of the Industrial Electronics Society, and the Asian Journal of Control. Prof. Wen has been recognized as a Highly Cited Researcher by Clarivate from 2018 through 2024. He is an IET Fellow.

# Recent Advances in Time-Frequency Analysis for Fault Detection and Diagnosis of Complex Industrial Processes

**Professor Jiande Wu 吴建德**

**Yunnan University**

## Abstract

Complex industrial processes play a vital role in modern industry, where process monitoring and fault diagnosis are essential for ensuring safety, efficiency, and product quality. However, industrial process data are often nonlinear, nonstationary, and strongly coupled, making conventional monitoring methods difficult to apply effectively. Time-frequency analysis provides an effective tool for revealing dynamic process behaviors and extracting fault-related information from complex industrial data. This lecture will present recent advances in time-frequency analysis for industrial process monitoring, including signal decomposition, time-frequency representation, and feature extraction techniques for oscillatory fault detection and diagnosis. Representative applications from phosphate chemical plants in Yunnan Province will be introduced, covering process feature extraction, quality monitoring, plant-wide fault detection, root-cause analysis, and fault diagnosis. These studies demonstrate the potential of time-frequency analysis in supporting intelligent monitoring and operation of complex industrial processes.



**Jiande Wu** received the B.S. and M.S. degrees in Automation and Mechatronic Engineering from Northwestern Polytechnical University, Xi'an, China, in 2001 and 2004, respectively, and the Ph.D. degree in Automation from Zhejiang University, Hangzhou, China, in 2007. He is currently a Professor at Yunnan University and has been recognized as a National High-Level Leading Talent and a Yunling Scholar. He also serves as the Director of the Engineering Technology Research Center for Intelligent Systems and Advanced Control of the Nonferrous Metals Industry of China. His research interests focus on fault detection and intelligent control of complex industrial processes, as well as industrial big data analysis and modeling. He has presided over more than 20 research projects, including key projects of the National Natural Science Foundation of China (Regional Joint Fund) and major science and technology projects of Yunnan Province. He has published over 70 papers in prestigious journals such as IEEE Transactions and holds more than 40 authorized patents. His research achievements have received several major awards, including the Second Prize of the National Science and Technology Progress Award, the First Prize of the Yunnan Provincial Science and Technology Progress Award, the First Prize of the Yunnan Provincial Natural Science Award, and the First Prize of the Natural Science Award of the Chinese Association of Automation.

# Adversarial Security of Brain-Computer Interfaces

**Professor Dongrui Wu 伍冬睿**

**Huazhong University of Science and Technology**

## Abstract

A brain-computer interface (BCI) enables direct communication between the brain and external devices. It can be used to research, enhance or repair human cognitive and sensory-motor functions. Electroencephalograms (EEGs) are frequently used in BCIs. However, EEG-based BCIs are subject to adversarial attacks, which are small perturbations that may be difficult to be detected by human eyes or computer algorithms, but can dramatically change the EEG decoding output and hence may hurt the user. Adversarial security is very important to the broad real-world applications of BCIs. This talk will introduce the implementation and defense against adversarial attacks to EEG-based BCIs.



**Dongrui Wu** (IEEE Fellow) received a B.E in Automatic Control from the University of Science and Technology of China, Hefei, China, in 2003, an M.Eng in Electrical and Computer Engineering from the National University of Singapore in 2006, and a PhD in Electrical Engineering from the University of Southern California, Los Angeles, CA, in 2009. He is now Chair Professor and Vice Dean of School of Artificial Intelligence and Automation, Huazhong University of Science and Technology, Wuhan, China. His research interests include brain-computer interface and machine learning. He has more than 200 publications (19000+ Google Scholar citations; h=72), with 7 outstanding paper awards from IEEE. His team won National Champion of the China Brain-Computer Interface Competition in seven successive years (2019-2025). He is the Editor-in-Chief of IEEE Transactions on Fuzzy Systems.

# Air-Ground Coordinated Last-Mile Delivery Optimization: Collaborative Vehicle-Drone Delivery Integrating Social Vehicles

**Professor Bin Xin 辛斌**

**Beijing Institute of Technology**

## Abstract

The low-altitude economy presents new opportunities for urban last-mile instant delivery. However, existing studies typically assume vehicles are company-owned assets subject to centralized dispatch, and fail to incorporate social vehicles as independent decision-making agents into the collaborative delivery framework. This report proposes a vehicle-drone collaborative delivery model that integrates social vehicles, modeling them as market-oriented agents acquired through a quotation-negotiation mechanism. We develop an integrated mathematical model that combines goods grouping, route pre-planning, and quotation/interaction processes, and design an Event-Driven Hybrid Heuristic (EDHH) framework to achieve closed-loop decision-making involving grouping optimization, route estimation, and multi-level quotation negotiation in dynamic environments. Experimental results demonstrate that EDHH significantly outperforms several baseline algorithms in terms of net profit and delivery success rate, exhibiting strong robustness. This work provides a theoretical framework and algorithmic support for transitioning low-altitude logistics from centralized dispatch to market-driven collaboration.



**Bin Xin** received the B.S. degree in information engineering and the Ph.D. degree in control science and engineering from the Beijing Institute of Technology, Beijing, China, in 2004 and 2012, respectively. He is a Member of the IEEE. He was an Academic Visitor with the Decision and Cognitive Sciences Research Centre, University of Manchester, Manchester, U.K., from 2011 to 2012. He is currently a Professor with the School of Automation, Beijing Institute of Technology. His current research interests include search and optimization, evolutionary computation, unmanned systems, and multiagent systems. Prof. Xin serves as an Associate Editor of the Journal

Unmanned Systems and many other international journals.

# Identification and Control of Finite-Information Systems

**Professor Yanlong Zhao 赵延龙**

**Academy of Mathematics and Systems Science, Chinese Academy of Sciences**

## Abstract

The theory of identification and control of finite-information systems represents a deepening and extension of traditional control theory, and serves as a crucial theoretical foundation for breakthroughs in key technologies such as 6G communications and multi-scale high-precision sensing. Driven by major national strategic demands including future 6G communications and multi-scale infrared sensing, system design faces a fundamental contradiction: practical constraints such as hardware energy consumption and channel bandwidth result in available data that are low-precision, distributed, and subject to multiple uncertainties, while application scenarios simultaneously require high accuracy, high reliability, and low energy consumption. Traditional control and information theories struggle to effectively reconcile the inherent conflict between “information finiteness” and “performance optimality.” Consequently, the development of finite-information identification and control theory is of critical scientific and engineering significance. This report presents the author’s latest advances in the theory of identification and control of finite-information systems from three perspectives: (i) quantized identification under multiple uncertainties, (ii) quantized identification and consensus control in distributed networked environments, and (iii) applications in communication and sensing systems.



**Yanlong Zhao** is currently a full Professor of Academy of Mathematics and Systems Science (AMSS), Chinese Academy of Sciences (CAS), and a Vice Director of State Key Laboratory of Mathematical Sciences. He received the B.S. degree in mathematics from Shandong University, Jinan, China, in 2002, and the Ph.D. degree in systems theory from the AMSS, CAS, Beijing, China, in 2007. His research interests include the identification and control of quantized systems, information theory and modelling of financial systems. Yanlong Zhao was awarded the Second Prize of the State Natural Science Award of China in 2015. He has been a Deputy Editor-in-Chief of Journal of Systems Science and Complexity, an Associate Editor for Automatica, SIAM Journal on Control and Optimization, and IEEE Transactions on Systems, Man and Cybernetics: Systems. He served as a Vice-President of Asian Control Association and a Vice-President of IEEE CSS Beijing Chapter, and is now a Vice-President and Fellow of the Chinese Association of Automation (CAA) and the Chair of Technical Committee on Control Theory, CAA.

# Content List of 2026 International Conference on Guidance, Navigation and Control

| A1                                                                                                                                                         |                                                        | 1st Floor VIP Room |                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------|---------------------------------------|
| Dynamic GNC                                                                                                                                                |                                                        | 1 层 贵宾厅            |                                       |
| Chairs: Lei Cui                                                                                                                                            |                                                        |                    |                                       |
| 08:00-08:08                                                                                                                                                |                                                        | A1.1               |                                       |
| <b>206</b> Review of high-speed unmanned aerial vehicle localization methods based on dynamic vision sensors                                               |                                                        |                    |                                       |
| Xing Qu                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |                    | Technology                            |
| Yingying Liu                                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute |                    | Hebei Univ. of Science and Technology |
| Miao Hui                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |                    | Hebei Univ. of Science and Technology |
| 08:08-08:16                                                                                                                                                |                                                        | A1.2               |                                       |
| <b>1518</b> 全电伺服动作系统关键技术展望                                                                                                                                 |                                                        |                    |                                       |
| Yuqing Fei                                                                                                                                                 | AVIC Chengdu Aircraft Design and Research Institute    |                    | Beijing Institute of Technology       |
| Wentao Yu                                                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Jinliang Bian                                                                                                                                              | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Jun Zhang                                                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Lin Yang                                                                                                                                                   | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| 08:16-08:24                                                                                                                                                |                                                        | A1.3               |                                       |
| <b>409</b> Prediction-model-updating tube model predictive control for civil aircraft landing safety                                                       |                                                        |                    |                                       |
| Hangyu Zhou                                                                                                                                                | Beihang Univ.                                          |                    |                                       |
| Lingyu Yang                                                                                                                                                | Beihang Univ.                                          |                    |                                       |
| Jing Zhang                                                                                                                                                 | Beihang Univ.                                          |                    |                                       |
| 08:24-08:32                                                                                                                                                |                                                        | A1.4               |                                       |
| <b>1329</b> Finite-horizon $H^\infty$ control with transients for linear time-varying systems: an indirect pseudospectral approach                         |                                                        |                    |                                       |
| Junhao Hu                                                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Yinchao Chen                                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Zhenyu Wang                                                                                                                                                | AVIC Chengdu Aircraft Design and Research Institute    |                    |                                       |
| Zhong Wang                                                                                                                                                 | Northwestern Polytechnical Univ.                       |                    |                                       |
| Yan Li                                                                                                                                                     | Northwestern Polytechnical Univ.                       |                    |                                       |
| 08:32-08:40                                                                                                                                                |                                                        | A1.5               |                                       |
| <b>1604</b> Closed-form controller for safe stabilization of systems with high relative degrees                                                            |                                                        |                    |                                       |
| Yangyang Xu                                                                                                                                                | Nankai Univ.                                           |                    |                                       |
| Yuan-Hua Ni                                                                                                                                                | Nankai Univ.                                           |                    |                                       |
| 08:40-08:48                                                                                                                                                |                                                        | A1.6               |                                       |
| <b>1661</b> Adaptive velocity constraint control for agile maneuvers of VTOL UAV                                                                           |                                                        |                    |                                       |
| Longxiang Wang                                                                                                                                             | Hebei Univ. of Science and Technology                  |                    |                                       |
| Minhui Zhang                                                                                                                                               | Hebei Univ. of Science and Technology                  |                    |                                       |
| Pengcheng Zhang                                                                                                                                            | Hebei Univ. of Science and Technology                  |                    |                                       |
| Lele Xi                                                                                                                                                    | Hebei Univ. of Science and Technology                  |                    |                                       |
| Ning Zhou                                                                                                                                                  | Hebei Univ. of Science and Technology                  |                    |                                       |
| Bing Cui                                                                                                                                                   | Beijing Institute of Technology                        |                    |                                       |
| 08:48-08:56                                                                                                                                                |                                                        | A1.7               |                                       |
| <b>810</b> Adaptive prescribed performance tracking control for multi-agent systems with asymmetric dead-zone output                                       |                                                        |                    |                                       |
| Wenjun Peng                                                                                                                                                | Univ. of Science and Technology Beijing                |                    |                                       |
| Linlin Li                                                                                                                                                  | Univ. of Science and Technology Beijing                |                    |                                       |
| Lei Cui                                                                                                                                                    | Univ. of Science and Technology Beijing                |                    |                                       |
| 08:56-09:04                                                                                                                                                |                                                        | A1.8               |                                       |
| <b>876</b> Cooperative optimal output regulation under quantized communication                                                                             |                                                        |                    |                                       |
| Bingjie Wang                                                                                                                                               | Northeastern Univ.                                     |                    |                                       |
| Tianyuan Wang                                                                                                                                              | Northeastern Univ.                                     |                    |                                       |
| Jin Tan                                                                                                                                                    | Northeastern Univ.                                     |                    |                                       |
| Tao Yang                                                                                                                                                   | Northeastern Univ.                                     |                    |                                       |
| 09:04-09:12                                                                                                                                                |                                                        | A1.9               |                                       |
| <b>385</b> A structure-preserving algorithm for fast suboptimal control of QUAVs                                                                           |                                                        |                    |                                       |
| Huian Yan                                                                                                                                                  | LiaoNing Technical Univ.,                              |                    |                                       |
| Meng Zhang                                                                                                                                                 | Southeast Univ.                                        |                    |                                       |
| Zhuo Liu                                                                                                                                                   | Southeast Univ.                                        |                    |                                       |
| Huixiong Wang                                                                                                                                              | Southeast Univ.                                        |                    |                                       |
| 09:12-09:20                                                                                                                                                |                                                        | A1.10              |                                       |
| <b>607</b> A uniform control frame based on homogeneous system theory: from proportional-derivative control to finite-time control to sliding-mode control |                                                        |                    |                                       |
| Yao Zhang                                                                                                                                                  | Hefei Univ. of Technology                              |                    |                                       |
| Yanhao Zhu                                                                                                                                                 | Hefei Univ. of Technology                              |                    |                                       |
| Jian Xiao                                                                                                                                                  | Hefei Univ. of Technology                              |                    |                                       |
| Wenwu Zhu                                                                                                                                                  | Hefei Univ. of Technology                              |                    |                                       |
| Haibo Du                                                                                                                                                   | Hefei Univ. of Technology                              |                    |                                       |
| Lanlin Yu                                                                                                                                                  | Hefei Univ. of Technology                              |                    |                                       |
| 09:20-09:28                                                                                                                                                |                                                        | A1.11              |                                       |
| <b>406</b> Gain scheduling strategy and implementation method for servo control systems with variable loads                                                |                                                        |                    |                                       |
| Qian Su                                                                                                                                                    | Qing'An Group Co., Ltd.                                |                    |                                       |
| Hongjun Pang                                                                                                                                               | Qing'An Group Co., Ltd.                                |                    |                                       |
| Shaojin Cui                                                                                                                                                | Qing'An Group Co., Ltd.                                |                    |                                       |
| Yongfeng Du                                                                                                                                                | Qing'An Group Co., Ltd.                                |                    |                                       |
| Fang Yang                                                                                                                                                  | Qing'An Group Co., Ltd.                                |                    |                                       |
| Hao Li                                                                                                                                                     | Qing'An Group Co., Ltd.                                |                    |                                       |
| 09:28-09:36                                                                                                                                                |                                                        | A1.12              |                                       |
| <b>125</b> Event-Triggered prescribed performance adaptive control via LPV modeling for structurally damaged aircraft                                      |                                                        |                    |                                       |
| Jinyang Jiang                                                                                                                                              | Beihang Univ.                                          |                    |                                       |
| Tianze Lv                                                                                                                                                  | Beihang Univ.                                          |                    |                                       |
| Jing Zhang                                                                                                                                                 | Beihang Univ.                                          |                    |                                       |

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|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Lingyu Yang                                                                                                                                     | Beihang Univ.                                    | Chunyu Li                                                                                                                 | Beijing Institute of Technology     |
| 09:36-09:44                                                                                                                                     | A1.13                                            | Ziyang Meng                                                                                                               | Tsinghua Univ.                      |
| <b>1410</b> <i>Fault diagnosis of civil aircraft hydraulic systems based on domain adversarial learning and supervised contrastive learning</i> |                                                  | Fei Xing                                                                                                                  | Tsinghua Univ.                      |
| Shengrui Zhang                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics    | 08:32-08:40                                                                                                               | A2.5                                |
| Jianwei Liu                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics    | <b>260</b> <i>Simple soft actor-critic: <math>\alpha</math>-adaptive SAC based on critic evaluation</i>                   |                                     |
| Ningning Chen                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics    | Jiawei Zhao                                                                                                               | Xi'an Research Institute of Hi-tech |
| 09:44-09:52                                                                                                                                     | A1.14                                            | Jieyu Liu                                                                                                                 | Xi'an Research Institute of Hi-tech |
| <b>1628</b> <i>Fixed-time security control for cyber-physical systems under FDI attacks and actuator faults</i>                                 |                                                  | Wei Luo                                                                                                                   | Xi'an Research Institute of Hi-tech |
| Baohao Wang                                                                                                                                     | Hebei Univ. of Science and Technology            | Jun Zhu                                                                                                                   | Tsinghua Univ.                      |
| Yikai Song                                                                                                                                      | Hebei Univ. of Science and Technology            | Dongfang Yang                                                                                                             | Xi'an Research Institute of Hi-tech |
| Ning Zhou                                                                                                                                       | Hebei Univ. of Science and Technology            | Tao Zhang                                                                                                                 | Tsinghua Univ.                      |
| Guang Yang                                                                                                                                      | Hebei Univ. of Science and Technology            | 08:40-08:48                                                                                                               | A2.6                                |
| Tiejun Li                                                                                                                                       | Hebei Univ. of Science and Technology            | <b>839</b> <i>Functional-part grounding for robot command generation with failure-aware exploration</i>                   |                                     |
| 09:52-10:00                                                                                                                                     | A1.15                                            | Hengxuan Xu                                                                                                               | Tsinghua Univ.                      |
| <b>319</b> <i>Active fault-tolerant control of flap actuator indication mechanism based on fault compensation</i>                               |                                                  | Fengbo Lan                                                                                                                | Tsinghua Univ.                      |
| Jianchi Yu                                                                                                                                      | Qing'An Group Co., Ltd.                          | Le Shi                                                                                                                    | Tsinghua Univ.                      |
| Peilei Chen                                                                                                                                     | Qing'An Group Co., Ltd.                          | Guanhua Huang                                                                                                             | Tsinghua Univ.                      |
| <b>A2</b> <b>2nd Floor Yangshuo Room</b>                                                                                                        |                                                  | Tao Xue                                                                                                                   | Tsinghua Univ.                      |
| <b>Learning GNC</b> <b>2 层 阳朔厅</b>                                                                                                              |                                                  | Tao Zhang                                                                                                                 | Tsinghua Univ.                      |
| Chairs: He Wang                                                                                                                                 |                                                  | 08:48-08:56                                                                                                               | A2.7                                |
| 08:00-08:08                                                                                                                                     | A2.1                                             | <b>1409</b> <i>A semi-automatic annotation method for anti-UAV based on agent interaction</i>                             |                                     |
| <b>1462</b> <i>Multimodal large language model-driven structure-aware ensemble evolutionary optimization for combinatorial problems</i>         |                                                  | Zhiyang Sun                                                                                                               | Sun Yat-sen Univ.                   |
| Jie Zhao                                                                                                                                        | Southeast Univ.                                  | Jiajun Zhu                                                                                                                | Sun Yat-sen Univ.                   |
| 08:08-08:16                                                                                                                                     | A2.2                                             | Chengwei Li                                                                                                               | Sun Yat-sen Univ.                   |
| <b>1754</b> 融合 Kolmogorov-Arnold 网络的时空 Transformer 图卷积网络交通流预测方法                                                                                 |                                                  | Junfei Chen                                                                                                               | Sun Yat-sen Univ.                   |
| Liuyan Jin                                                                                                                                      | Tsinghua Univ.                                   | Yong Wang                                                                                                                 | Sun Yat-sen Univ.                   |
| Mingmao Hu                                                                                                                                      | Hubei Univ. of Automotive Technology             | 08:56-09:04                                                                                                               | A2.8                                |
| Xing Zhang                                                                                                                                      | Tsinghua Univ.                                   | <b>434</b> <i>Research on space non-cooperative target intent recognition based on BIGRU-SA-Transformer</i>               |                                     |
| Yu Jiang                                                                                                                                        | Suzhou Yuanzi Intelligent Technology Co., Ltd.   | Zhan Gao                                                                                                                  | Space Engineering Univ.             |
| Zheng Qiu                                                                                                                                       | Tsinghua Univ.                                   | Ang Li                                                                                                                    | Space Engineering Univ.             |
| Jihong Zhu                                                                                                                                      | Tsinghua Univ.                                   | Bin Wang                                                                                                                  | Space Engineering Univ.             |
| 08:16-08:24                                                                                                                                     | A2.3                                             | Runnan Qin                                                                                                                | National Space Science Center, CAS  |
| <b>1565</b> <i>Deep reinforcement learning for time-splitting MF-RIS-assisted anti-jamming communications</i>                                   |                                                  | 09:04-09:12                                                                                                               | A2.9                                |
| Yiting Hong                                                                                                                                     | Southeast Univ.                                  | <b>1275</b> <i>Structracker: UAV swarm tracking based on local formation-structure priors</i>                             |                                     |
| He Wang                                                                                                                                         | Southeast Univ.                                  | Yongrui Zhang                                                                                                             | Northwestern Polytechnical Univ.    |
| Wenwu Yu                                                                                                                                        | Southeast Univ.                                  | Hua Lan                                                                                                                   | Northwestern Polytechnical Univ.    |
| 08:24-08:32                                                                                                                                     | A2.4                                             | 09:12-09:20                                                                                                               | A2.10                               |
| <b>1235</b> <i>Task-guided one-step flow-based infrared generation for visual place recognition</i>                                             |                                                  | <b>1080</b> <i>Describe, do not judge: implicit knowledge injection for multimodal emotion recognition in embodied AI</i> |                                     |
| Liangzheng Sun                                                                                                                                  | Beijing Information Science and Technology Univ. | Yuer Li                                                                                                                   | Tsinghua Univ.                      |
| Mengfan He                                                                                                                                      | Tsinghua Univ.                                   | Xiaohui Fan                                                                                                               | Tsinghua Univ.                      |
| Xingyu Shao                                                                                                                                     | Tsinghua Univ.                                   | Wei Ren                                                                                                                   | Tsinghua Univ.                      |
| Kai Zhou                                                                                                                                        | Tsinghua Univ.                                   | Feng Chen                                                                                                                 | Lenovo Research                     |
| Mingli Dong                                                                                                                                     | Beijing Information Science and Technology Univ. | Jun Xie                                                                                                                   | Lenovo Research                     |
|                                                                                                                                                 |                                                  | Zimeng Tan                                                                                                                | Lenovo Research                     |
|                                                                                                                                                 |                                                  | Tao Xue                                                                                                                   | Tsinghua Univ.                      |
|                                                                                                                                                 |                                                  | Tao Zhang                                                                                                                 | Tsinghua Univ.                      |
|                                                                                                                                                 |                                                  | 09:20-09:28                                                                                                               | A2.11                               |
|                                                                                                                                                 |                                                  | <b>1482</b> 基于改进 DeblurGAN-v2 模型的偏振图像重建方法                                                                                 |                                     |
|                                                                                                                                                 |                                                  | Dong Han                                                                                                                  | North Univ. of China                |
|                                                                                                                                                 |                                                  | Xiaochen Liu                                                                                                              | North Univ. of China                |

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| Chong Shen                                                                                                                        | North Univ. of China                              | Ming Yang                                                                                                                                            | Harbin Institute of Technology                   |
| 09:28-09:36                                                                                                                       | A2.12                                             | Jiadong Yang                                                                                                                                         | Harbin Institute of Technology                   |
| <b>1136</b> 面向卫星多维遥测数据的时频协同隐性特征提取与异常检测                                                                                            |                                                   | Tao Chao                                                                                                                                             | Harbin Institute of Technology                   |
| Kaiyun Hu                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     | 08:24-08:32                                                                                                                                          | A3.4                                             |
| Yajie Ma                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     | <b>420</b> <i>Autonomous navigation methods for mega-constellations based on information interaction</i>                                             |                                                  |
| Bin Jiang                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     | Weiyu Zhao                                                                                                                                           | National Univ. of Defense Technology             |
| 09:36-09:44                                                                                                                       | A2.13                                             | Zisheng Fang                                                                                                                                         | National Univ. of Defense Technology             |
| <b>772</b> <i>Hybrid modeling and control of a rotor-assisted wheel-legged robot</i>                                              |                                                   | Bowen Hou                                                                                                                                            | National Univ. of Defense Technology             |
| Zhiheng Dai                                                                                                                       | Beihang Univ.                                     | 08:32-08:40                                                                                                                                          | A3.5                                             |
| Xinglu Xia                                                                                                                        | Beihang Univ.                                     | <b>140</b> <i>A dual-layer game-inspired unscented Kalman filter approach for dynamic aerodynamic parameter identification of guided projectiles</i> |                                                  |
| Zizhuo Cai                                                                                                                        | Beihang Univ.                                     | Jiachao Wu                                                                                                                                           | Nanjing Univ. of Science and Technology          |
| Yiyu Wang                                                                                                                         | Beihang Univ.                                     | Jinwen Wang                                                                                                                                          | Nanjing Univ. of Science and Technology          |
| Qidi Wang                                                                                                                         | Beihang Univ.                                     | Hongxuan Che                                                                                                                                         | Nanjing Univ. of Science and Technology          |
| Zichun Guo                                                                                                                        | Beihang Univ.                                     | Chen Huang                                                                                                                                           | Nanjing Univ. of Science and Technology          |
| Yingjian Xu                                                                                                                       | Beijing Aero King Technology Co., Ltd.            | 08:40-08:48                                                                                                                                          | A3.6                                             |
| Yingxun Wang                                                                                                                      | Beihang Univ.                                     | <b>463</b> <i>Semi-physical simulation system design and verification for space target angular velocity estimation based on sequential images</i>    |                                                  |
| 09:44-09:52                                                                                                                       | A2.14                                             | Bowen Hou                                                                                                                                            | National Univ. of Defense Technology             |
| <b>1700</b> <i>Safety assessment of logic control networks</i>                                                                    |                                                   | Yijie Zhang                                                                                                                                          | National Univ. of Defense Technology             |
| Yue Wu                                                                                                                            | Academy of Mathematics and Systems Sciences, CAS  | 08:48-08:56                                                                                                                                          | A3.7                                             |
| Hongsheng Qi                                                                                                                      | Academy of Mathematics and Systems Sciences, CAS  | <b>1223</b> <i>Robust pedestrian navigation using graduated nonconvexity geman-mcclure cost</i>                                                      |                                                  |
| 09:52-10:00                                                                                                                       | A2.15                                             | Zheming Tu                                                                                                                                           | National Univ. of Defense Technology             |
| <b>1510</b> <i>A method for optimizing communication routing for domain control in mega-constellation remote sensing missions</i> |                                                   | Yan Guo                                                                                                                                              | National Univ. of Defense Technology             |
| Pengfei Chen                                                                                                                      | Sichuan Univ.                                     | Wenqi Wu                                                                                                                                             | National Univ. of Defense Technology             |
| Bin Li                                                                                                                            | Sichuan Univ.                                     | Xianfei Pan                                                                                                                                          | National Univ. of Defense Technology             |
| Qinglong Huang                                                                                                                    | Shanghai Satellite Engineering Research Institute | 08:56-09:04                                                                                                                                          | A3.8                                             |
| Mingming Shi                                                                                                                      | Sichuan Univ.                                     | <b>392</b> <i>Enhanced LIVO: LiDAR-assisted visual feature optimization for challenging environments</i>                                             |                                                  |
| <b>A3</b>                                                                                                                         | <b>2nd Floor Lipu Room</b>                        | Yuanchao Qiu                                                                                                                                         | Beijing Institute of Technology                  |
| <b>Precision GNC</b>                                                                                                              | <b>2 层 荔浦厅</b>                                    | Yuhang Zhang                                                                                                                                         | Beijing Institute of Technology                  |
| Chairs: Zhi Xiong                                                                                                                 |                                                   | Yan Yang                                                                                                                                             | Beijing Institute of Technology                  |
| 08:00-08:08                                                                                                                       | A3.1                                              | Haikuo Liu                                                                                                                                           | Beijing Institute of Technology                  |
| <b>528</b> <i>Autonomous navigation error modeling and accuracy inversion of deep space probes based on optical sensors</i>       |                                                   | Changkun Du                                                                                                                                          | China Aerospace Science and Industry Corporation |
| Zhicheng Wei                                                                                                                      | National Univ. of Defense Technology              | Zhen Li                                                                                                                                              | Beijing Institute of Technology                  |
| Yuchen Li                                                                                                                         | National Univ. of Defense Technology              | 09:04-09:12                                                                                                                                          | A3.9                                             |
| Bowen Hou                                                                                                                         | National Univ. of Defense Technology              | <b>502</b> 基于高斯混合置信传播的无人机群协同导航方法                                                                                                                     |                                                  |
| 08:08-08:16                                                                                                                       | A3.2                                              | Mingxing Chen                                                                                                                                        | Anhui Institute of Technology                    |
| <b>1186</b> 基于自适应误差抑制的惯性测量单元改进预积分定位方法                                                                                             |                                                   | Zhi Xiong                                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics    |
| Yuhang Jia                                                                                                                        | Beihang Univ.                                     | Li Guo                                                                                                                                               | Anhui Institute of Technology                    |
| Jian Shi                                                                                                                          | Beihang Univ.                                     | Tanglin Chen                                                                                                                                         | China Skyero Aero-Engine Maintenance Co., Ltd.   |
| Shaoping Wang                                                                                                                     | Beihang Univ.                                     | 09:12-09:20                                                                                                                                          | A3.10                                            |
| Rui Mu                                                                                                                            | Beihang Univ.                                     | <b>716</b> 一种基于运动条件约束更新的视觉惯性里程计                                                                                                                      |                                                  |
| 08:16-08:24                                                                                                                       | A3.3                                              | Jiading Han                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics    |
| <b>218</b> <i>Time-domain re-segmentation for LIDAR-only odometry and an origin-constrained trajectory evaluation method</i>      |                                                   | Ling Zhang                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics    |
| Xu Wen                                                                                                                            | Harbin Institute of Technology                    | Jingqi Wang                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics    |
| Wei He                                                                                                                            | Shanghai Electro-Mechanical Engineering Institute | Zhiming Zhou                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics    |

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|                                                                                                                     | Astronautics                         |
| Xiang Gao                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Zhi Xiong                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| 09:20-09:27                                                                                                         | A3.11                                |
| <b>717</b> 基于占据栅格粒子滤波回环优化的头盔同步定位与建图方法                                                                               |                                      |
| Yifu Wang                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Ling Zhang                                                                                                          | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Jiading Han                                                                                                         | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Yan Cui                                                                                                             | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Zhi Xiong                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| 09:27-09:35                                                                                                         | A3.12                                |
| <b>1151</b> 基于组合权重的机载导航系统性能评估方法                                                                                     |                                      |
| Jiayang Zhang                                                                                                       | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Zhi Xiong                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Huiyu He                                                                                                            | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Xinrui Zhang                                                                                                        | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Tianji Wu                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| 09:35-09:44                                                                                                         | A3.13                                |
| <b>1324</b> Robust LiDAR-inertial-wheel odometry via degeneracy-aware adaptive fusion method                        |                                      |
| Zhiming Zhou                                                                                                        | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Zhi Xiong                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Ling Zhang                                                                                                          | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| Xiang Gao                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                     | Astronautics                         |
| 09:44-09:52                                                                                                         | A3.14                                |
| <b>1078</b> The impact of attitude perturbations on the estimation of gravitational and magnetic field disturbances |                                      |
| Zeliang Zhang                                                                                                       | Univ. of Electronic Science and      |
|                                                                                                                     | Technology of China                  |
| Zebo Zhou                                                                                                           | Univ. of Electronic Science and      |
|                                                                                                                     | Technology of China                  |
| Bei Chen                                                                                                            | Univ. of Electronic Science and      |
|                                                                                                                     | Technology of China                  |
| 09:52-10:00                                                                                                         | A3.15                                |
| <b>123</b> Research on a frequency increase prediction method for laser gyroscope attitude reference information    |                                      |
| Yue Leng                                                                                                            | Huazhong Institute of Electro-Optics |
| Pinghuang Zhou                                                                                                      | Huazhong Institute of Electro-Optics |
| Wenyu Ai                                                                                                            | Huazhong Institute of Electro-Optics |
| Kun Wang                                                                                                            | Huazhong Institute of Electro-Optics |
| <b>A4</b>                                                                                                           | <b>2nd Floor Nanning Room1</b>       |

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| <b>Advanced GNC</b>                                                                                                               | <b>2 层 南宁厅 1</b>                     |
| Chairs: Pin Lyu                                                                                                                   |                                      |
| 08:00-08:08                                                                                                                       | A4.1                                 |
| <b>175</b> Spatial-temporal cooperative guidance considering aerodynamic drag                                                     |                                      |
| Cheng Wan                                                                                                                         | Beijing Institute of Technology      |
| Wenliang Peng                                                                                                                     | Beijing Institute of Technology,     |
|                                                                                                                                   | Zhuhai                               |
| 08:08-08:16                                                                                                                       | A4.2                                 |
| <b>274</b> Cooperative terminal guidance synthesis via a hierarchical coupled scheme for time-of-arrival and impact angle control |                                      |
| Zhenyu Gong                                                                                                                       | Nanjing Univ. of Aeronautics and     |
|                                                                                                                                   | Astronautics                         |
| Li Li                                                                                                                             | Beijing Aero Lever Precision         |
|                                                                                                                                   | Limited                              |
| Lei Xie                                                                                                                           | Nanjing Univ. of Aeronautics and     |
|                                                                                                                                   | Astronautics                         |
| Shuang Li                                                                                                                         | Nanjing Univ. of Aeronautics and     |
|                                                                                                                                   | Astronautics                         |
| 08:16-08:24                                                                                                                       | A4.3                                 |
| <b>1665</b> Active load relief method based on nonlinear disturbance observer of launch vehicles                                  |                                      |
| Ziao Tang                                                                                                                         | National Univ. of Defense Technology |
| Ruizhi He                                                                                                                         | National Univ. of Defense Technology |
| Hongyan Huang                                                                                                                     | Xichang Satellite Launch Center      |
| Chunfeng Zhang                                                                                                                    | Xichang Satellite Launch Center      |
| Guojian Tang                                                                                                                      | National Univ. of Defense Technology |
| Weimin Bao                                                                                                                        | China Aerospace Science and          |
|                                                                                                                                   | Technology Corporation               |
| 08:24-08:32                                                                                                                       | A4.4                                 |
| <b>669</b> Coupling/disturbance-utilization control for hypersonic vehicles                                                       |                                      |
| Yi Du                                                                                                                             | Beihang Univ.                        |
| Honglun Wang                                                                                                                      | Beihang Univ.                        |
| Bin Ren                                                                                                                           | Beihang Univ.                        |
| 08:32-08:40                                                                                                                       | A4.5                                 |
| <b>743</b> Three-dimensional impact time and angle control guidance with field-of-view constraint                                 |                                      |
| Haoyu Zheng                                                                                                                       | Harbin Institute of Technology       |
| Bin Zhou                                                                                                                          | Harbin Institute of Technology       |
| Yihao Wang                                                                                                                        | Harbin Institute of Technology       |
| 08:40-08:48                                                                                                                       | A4.6                                 |
| <b>1037</b> Minimum-flight-time spatiotemporal cooperative guidance                                                               |                                      |
| Haojian Li                                                                                                                        | National Univ. of Defense Technology |
| Kebo Li                                                                                                                           | National Univ. of Defense Technology |
| Jin Tang                                                                                                                          | National Univ. of Defense Technology |
| Yangang Liang                                                                                                                     | National Univ. of Defense Technology |
| 08:48-08:56                                                                                                                       | A4.7                                 |
| <b>864</b> 变体飞行器柔性预设性能抗饱和和控制方法研究                                                                                                  |                                      |
| Wei Li                                                                                                                            | Yunnan Police College                |
| Xingji He                                                                                                                         | Yunnan Police College                |
| Qunli Xia                                                                                                                         | Beijing Institute of Technology      |
| 08:56-09:04                                                                                                                       | A4.8                                 |
| <b>680</b> Potential-flow field integration method for hypersonic gliding vehicle with dynamic no-fly zone                        |                                      |
| Han Song                                                                                                                          | Beijing Institute of Technology      |
| Shen Kang                                                                                                                         | Beijing Galactic Energy Space        |

|                                                                                                                                              |                                               |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|
|                                                                                                                                              | Technology Co., Ltd.                          |  |
| Junhui Liu                                                                                                                                   | Beijing Institute of Technology               |  |
| Chunyu Li                                                                                                                                    | Beijing Institute of Technology               |  |
| Jiayuan Shan                                                                                                                                 | Beijing Institute of Technology               |  |
| 09:04-09:12                                                                                                                                  | A4.9                                          |  |
| <b>1495</b> <i>A predictive entry guidance for reusable launched vehicles based on an improved MIT adaptive law</i>                          |                                               |  |
| Xiangyu Yan                                                                                                                                  | National Univ. of Defense Technology          |  |
| Xiang Zhou                                                                                                                                   | National Univ. of Defense Technology          |  |
| Zixin Wang                                                                                                                                   | National Univ. of Defense Technology          |  |
| Hongbo Zhang                                                                                                                                 | National Univ. of Defense Technology          |  |
| Guojian Tang                                                                                                                                 | National Univ. of Defense Technology          |  |
| 09:12-09:20                                                                                                                                  | A4.10                                         |  |
| <b>667</b> <i>Trajectory planning method for morphing vehicle based on improved sequential convex optimization theory</i>                    |                                               |  |
| Sibo Zhao                                                                                                                                    | Rocket Force Univ. of Engineering             |  |
| Jianwen Zhu                                                                                                                                  | Rocket Force Univ. of Engineering             |  |
| Xiang Zhou                                                                                                                                   | National Univ. of Defense Technology          |  |
| Hao Zhang                                                                                                                                    | Xidian Univ.                                  |  |
| Siyu Dai                                                                                                                                     | Rocket Force Univ. of Engineering             |  |
| 09:20-09:28                                                                                                                                  | A4.11                                         |  |
| <b>568</b> <i>Visual servoing based optimal positioning for quadrotor in space unmanned systems via adaptive dynamic programming</i>         |                                               |  |
| Shenyi Jiang                                                                                                                                 | Harbin Institute of Technology                |  |
| Xuebo Yang                                                                                                                                   | Harbin Institute of Technology                |  |
| Yuan Li                                                                                                                                      | National Univ. of Defense Technology          |  |
| Heng Yang                                                                                                                                    | Harbin Institute of Technology                |  |
| Jialu Li                                                                                                                                     | Harbin Institute of Technology                |  |
| 09:28-09:36                                                                                                                                  | A4.12                                         |  |
| <b>1406</b> <i>Lightweight group-aware association for UAV multi-object tracking with YOLO11</i>                                             |                                               |  |
| Defeng Sun                                                                                                                                   | Naval Aviation Univ.                          |  |
| Shaowu Dai                                                                                                                                   | Naval Aviation Univ.                          |  |
| Zhicai Xiao                                                                                                                                  | Naval Aviation Univ.                          |  |
| Shun Sun                                                                                                                                     | Naval Aviation Univ.                          |  |
| Yahui Qi                                                                                                                                     | Naval Aviation Univ.                          |  |
| Bei Qian                                                                                                                                     | Naval Aviation Univ.                          |  |
| 09:36-09:44                                                                                                                                  | A4.13                                         |  |
| <b>590</b> <i>Robust self-learning 3-D anti-UAV guidance without disturbance estimation</i>                                                  |                                               |  |
| Yanbin Du                                                                                                                                    | Institute of Automation, CAS                  |  |
| Dongdong Ni                                                                                                                                  | Institute of Automation, CAS                  |  |
| Hao Ren                                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics |  |
| Qinglai Wei                                                                                                                                  | Institute of Automation, CAS                  |  |
| Bin Jiang                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics |  |
| 09:44-09:52                                                                                                                                  | A4.14                                         |  |
| <b>190</b> <i>Robust localization and joint NLoS error estimation in mixed LoS/NLoS scenarios based on statistical constraint relaxation</i> |                                               |  |
| Yanbiao Gao                                                                                                                                  | Beijing Univ. of Posts and Telecommunications |  |
| Zhongliang Deng                                                                                                                              | Beijing Univ. of Posts and Telecommunications |  |
| 09:52-10:00                                                                                                                                  | A4.15                                         |  |
| <b>228</b> <i>Real-time skeleton extraction-based path planning method for pipe-inspection UAVs</i>                                          |                                               |  |

|                                                                                                                                              |                                               |                                |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------|
| Lu Zeng                                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Chen Cao                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Pin Lyu                                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Yebei Wen                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Zehui Fu                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics |                                |
| <b>A5</b>                                                                                                                                    |                                               | <b>2nd Floor Nanning Room2</b> |
| <b>Planning GNC</b>                                                                                                                          |                                               | <b>2 层 南宁厅 2</b>               |
| Chairs: Jiang Zhao                                                                                                                           |                                               |                                |
| 08:00-08:08                                                                                                                                  | A5.1                                          |                                |
| <b>1158</b> <i>An airspace capacity assessment method for low-altitude UAV operations based on a task-space footprint field</i>              |                                               |                                |
| Xiaoyu Zhang                                                                                                                                 | Air Force Engineering Univ.                   |                                |
| Fuping Yu                                                                                                                                    | Air Force Engineering Univ.                   |                                |
| Di Shen                                                                                                                                      | Air Force Engineering Univ.                   |                                |
| Dan Huo                                                                                                                                      | Air Force Engineering Univ.                   |                                |
| 08:08-08:16                                                                                                                                  | A5.2                                          |                                |
| <b>1708</b> <i>Wake encounter response and safe separation for rotorcraft following fixed-wing aircraft during approach</i>                  |                                               |                                |
| Lekun Kuang                                                                                                                                  | Air Force Engineering Univ.                   |                                |
| Jiangbin Dai                                                                                                                                 | Air Force Engineering Univ.                   |                                |
| Duo Qi                                                                                                                                       | Air Force Engineering Univ.                   |                                |
| 08:16-08:24                                                                                                                                  | A5.3                                          |                                |
| <b>1709</b> <i>Dynamic separation optimization method for eVTOL based on low-altitude risk constraints</i>                                   |                                               |                                |
| Hang Xu                                                                                                                                      | Air Force Engineering Univ.                   |                                |
| Jiangbin Dai                                                                                                                                 | Air Force Engineering Univ.                   |                                |
| Duo Qi                                                                                                                                       | Air Force Engineering Univ.                   |                                |
| 08:24-08:32                                                                                                                                  | A5.4                                          |                                |
| <b>311</b> <i>Stage-aware planning augmentation for two-stage vision-language drone navigation</i>                                           |                                               |                                |
| Jiayu Zhao                                                                                                                                   | National Univ. of Defense Technology          |                                |
| Keyu Zhao                                                                                                                                    | National Univ. of Defense Technology          |                                |
| Xiaoguang Chen                                                                                                                               | National Univ. of Defense Technology          |                                |
| Aiwei Liu                                                                                                                                    | National Univ. of Defense Technology          |                                |
| Xueqiang Gu                                                                                                                                  | National Univ. of Defense Technology          |                                |
| 08:32-08:40                                                                                                                                  | A5.5                                          |                                |
| <b>337</b> <i>VoroSD-Alloc: Voronoi regional allocation with static-dynamic strategies for UAV swarm 3D exploration using octree mapping</i> |                                               |                                |
| Pei Chi                                                                                                                                      | Beihang Univ.                                 |                                |
| Deer Li                                                                                                                                      | Beihang Univ.                                 |                                |
| Yingxun Wang                                                                                                                                 | Beihang Univ.                                 |                                |
| Jiang Zhao                                                                                                                                   | Beihang Univ.                                 |                                |
| 08:40-08:48                                                                                                                                  | A5.6                                          |                                |
| <b>341</b> <i>基于动力学包络估计的无人机混合强化学习控制</i>                                                                                                      |                                               |                                |
| Shengyuan Hu                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Huajun Gong                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics |                                |
| Xinhua Wang                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics |                                |
| 08:48-08:56                                                                                                                                  | A5.7                                          |                                |
| <b>422</b> <i>A three-dimensional high-precision guidance strategy for</i>                                                                   |                                               |                                |

*skyhook recovery of shipborne UAV*

|             |                                  |
|-------------|----------------------------------|
| Xinyang Du  | Northwestern Polytechnical Univ. |
| Guangwen Li | Northwestern Polytechnical Univ. |
| Shaobo Zhai | Northwestern Polytechnical Univ. |
| 08:56-09:04 | A5.8                             |

**879** *Robust attitude stabilization for fixed-wing UAVs with center-of-gravity shifts*

|              |                                  |
|--------------|----------------------------------|
| Shaobo Zhai  | Northwestern Polytechnical Univ. |
| Guangwen Li  | Northwestern Polytechnical Univ. |
| Xinyang Du   | Northwestern Polytechnical Univ. |
| Junmin Cheng | Northwestern Polytechnical Univ. |
| 09:04-09:12  | A5.9                             |

**1128** *Micro unmanned aerial vehicle deployment flight control based on improved active disturbance rejection control*

|                |               |
|----------------|---------------|
| Bo Zhang       | Beihang Univ. |
| Zhihao Cai     | Beihang Univ. |
| Nianzheng Feng | Beihang Univ. |
| 09:12-09:20    | A5.10         |

**1361** *基于信号时间逻辑任务的纵列式无人直升机双层模型预测控制*

|             |                                               |
|-------------|-----------------------------------------------|
| Tianci Wang | Nanjing Univ. of Aeronautics and Astronautics |
| Xinhua Wang | Nanjing Univ. of Aeronautics and Astronautics |
| 09:20-09:28 | A5.11                                         |

**1259** *Wind-driver: a wind-aware planning-and-control framework for quadrotors*

|              |               |
|--------------|---------------|
| Yuyang Wang  | Beihang Univ. |
| Jindou Jia   | Beihang Univ. |
| Zeshuai Chen | Beihang Univ. |
| Weipeng LI   | Beihang Univ. |
| Kexin Guo    | Beihang Univ. |
| Xiang Yu     | Beihang Univ. |
| Lei Guo      | Beihang Univ. |
| 09:28-09:36  | A5.12         |

**1363** *Reinforcement learning for wind-resistant attitude-aware offshore hovering of fully-actuated quadrotors*

|              |                               |
|--------------|-------------------------------|
| Yishuai Zeng | Guangdong Univ. of Technology |
| Yufan Liu    | Guangdong Univ. of Technology |
| Wei Meng     | Guangdong Univ. of Technology |
| 09:36-09:44  | A5.13                         |

**653** *A CBF-based safe flight control method of drones with model predictive control*

|             |                                          |
|-------------|------------------------------------------|
| Zibo Chen   | Univ. of Science and Technology of China |
| Haibo Ji    | Univ. of Science and Technology of China |
| 09:44-09:52 | A5.14                                    |

**545** *Dynamics modeling method of unmanned helicopter based on SE(3) manifold and convex-constrained Hamiltonian neural ODE*

|               |                           |
|---------------|---------------------------|
| Yuanyuan Gao  | Hefei Univ. of Technology |
| Shaowen Ding  | Hefei Univ. of Technology |
| Shaofeng Chen | Hefei Univ. of Technology |
| Yu Kang       | Hefei Univ. of Technology |
| Jing Lai      | Hefei Univ. of Technology |

**A6** **2nd Floor Nanning Room3**

**Autonomous GNC** **2层 南宁厅 3**

|                      |      |
|----------------------|------|
| Chairs: Xiaoshan Gao |      |
| 08:00-08:08          | A6.1 |

**634** *Deep reinforcement learning-based integration of path planning and control for fixed-wing UAVs*

|              |                                               |
|--------------|-----------------------------------------------|
| Zhanfan Bai  | Beihang Univ.                                 |
| Honglun Wang | Beihang Univ.                                 |
| Bin Ren      | Beihang Univ.                                 |
| Zikang Su    | Nanjing Univ. of Aeronautics and Astronautics |
| 08:08-08:16  | A6.2                                          |

**670** *A reinforcement learning-guided sampling approach for resolving the RRT\*-based UAV path planning problem in complex 3D terrain*

|               |               |
|---------------|---------------|
| Hongrui Zhang | Beihang Univ. |
| Honglun Wang  | Beihang Univ. |
| Bin Ren       | Beihang Univ. |
| 08:16-08:24   | A6.3          |

**251** *基于课程学习增强型 DDPG 的复杂海洋环境下 AUV 突防策略研究*

|             |                          |
|-------------|--------------------------|
| Peijie Geng | Harbin Engineering Univ. |
| Yuxin Zhao  | Harbin Engineering Univ. |
| Xiong Deng  | Harbin Engineering Univ. |
| 08:24-08:32 | A6.4                     |

**253** *CNOP-guided multi-AUV cooperative thermocline observation with centralized training and decentralized execution for continuous-action multi-agent reinforcement learning*

|             |                          |
|-------------|--------------------------|
| Ming Lei    | Harbin Engineering Univ. |
| Yuxin Zhao  | Harbin Engineering Univ. |
| Xiong Deng  | Harbin Engineering Univ. |
| 08:32-08:40 | A6.5                     |

**637** *Brain-inspired goal-directed navigation based on place cells and action cells*

|              |                                               |
|--------------|-----------------------------------------------|
| Haotian Wang | Nanjing Univ. of Aeronautics and Astronautics |
| Ling Zhang   | nanjing Univ. of aeronautics and astronautics |
| Zhi Xiong    | Nanjing Univ. of Aeronautics and Astronautics |
| Chenxu Wang  | Nanjing Univ. of Aeronautics and Astronautics |
| Yudi Chen    | Nanjing Univ. of Aeronautics and Astronautics |
| 08:40-08:48  | A6.6                                          |

**1260** *Trajectory tracking and robust control of wall-climbing robots: a composite PID-sliding mode approach*

|              |                                 |
|--------------|---------------------------------|
| Hanzhi Hu    | Beihang Univ.                   |
| Xiaoshan Gao | Beihang Univ.                   |
| Liang Yan    | Beihang Univ.                   |
| Han Wang     | Beijing Institute of Technology |
| 08:48-08:56  | A6.7                            |

**1016** *Powered descent phase trajectory planning for Mars soft landing under hazardous terrain and multiple safety constraints*

|             |                                             |
|-------------|---------------------------------------------|
| Zikang Guo  | Harbin Institute of Technology              |
| Haiyu Xu    | Shanghai Institute of Satellite Engineering |
| Pengyu Wang | Harbin Institute of Technology              |

|                                                                                                    |                                                   |                                                                                                                     |                                                  |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Yuhan Liu                                                                                          | Harbin Institute of Technology                    | Astronautics                                                                                                        |                                                  |
| Yanning Guo                                                                                        | Harbin Institute of Technology                    | City Univ. of Hong Kong                                                                                             |                                                  |
| 08:56-09:04                                                                                        | A6.8                                              | 09:52-10:00                                                                                                         | A6.15                                            |
| 171 JGH A*: JPS-guided hybrid A* for efficient and kinematically feasible vehicle pathfinding      |                                                   | 612 Influence of tanker status on the dynamic behavior of the aerial refueling probe-drogue System                  |                                                  |
| Jiadong Yang                                                                                       | Harbin Institute of Technology                    | Linhan Qiao                                                                                                         | Northwestern Polytechnical Univ.                 |
| Wei He                                                                                             | Shanghai Electro-Mechanical Engineering Institute | Zehua Zhang                                                                                                         | Northwestern Polytechnical Univ.                 |
| Xu Wen                                                                                             | Harbin Institute of Technology                    | Jiashuo Liu                                                                                                         | Northwestern Polytechnical Univ.                 |
| Xiaofeng Han                                                                                       | Harbin Institute of Technology                    | Su Yang                                                                                                             | Northwestern Polytechnical Univ.                 |
| Tao Chao                                                                                           | Harbin Institute of Technology                    | Shihao Zhao                                                                                                         | Northwestern Polytechnical Univ.                 |
| 09:04-09:12                                                                                        | A6.9                                              | Zimeng Wu                                                                                                           | Northwestern Polytechnical Univ.                 |
| 971 Flight plan correction method based on PSO                                                     |                                                   | Zicheng Fan                                                                                                         | Northwestern Polytechnical Univ.                 |
| Yuning Song                                                                                        | Beijing Keeven Aviation Instrument Co., Ltd.      | Yaohong Qu                                                                                                          | Northwestern Polytechnical Univ.                 |
| 09:12-09:20                                                                                        | A6.10                                             | A7 2nd Floor Longsheng Room                                                                                         |                                                  |
| 1121 Reinforcement learning-based UAV path planning method with integrated ORCA safety constraints |                                                   | Formation GNC 2 层 龙胜厅                                                                                               |                                                  |
| Peng Wang                                                                                          | Civil Aviation Univ. of China                     | Chairs: Maolong Lv                                                                                                  |                                                  |
| Hao Chang                                                                                          | Civil Aviation Univ. of China                     | 08:00-08:08                                                                                                         |                                                  |
| Nan Xu                                                                                             | Civil Aviation Univ. of China                     | A7.1                                                                                                                |                                                  |
| Jingyi Qu                                                                                          | Civil Aviation Univ. of China                     | 165 Robust bipartite consensus of multi-agent systems over signed graphs with edge-wise communication uncertainties |                                                  |
| 09:20-09:28                                                                                        | A6.11                                             | Miao Liu                                                                                                            | Nanjing Tech Univ.                               |
| 1751 Active reconstruction of planetary surface topography based on next best view selection       |                                                   | Shenglong Wu                                                                                                        | Nanjing Tech Univ.                               |
| Chuxuan Liu                                                                                        | Nanjing Univ. of Aeronautics and Astronautics     | Mingxing Ke                                                                                                         | National Univ. of Defense Technology             |
| Chenxi Lu                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     | Shaopan Guo                                                                                                         | Nanjing Tech Univ.                               |
| Meng Yu                                                                                            | Nanjing Univ. of Aeronautics and Astronautics     | Long Xiao                                                                                                           | Nanjing Tech Univ.                               |
| 09:28-09:36                                                                                        | A6.12                                             | 08:08-08:16                                                                                                         |                                                  |
| 1393 基于梯次优化的低空物流自适应集群任务分配                                                                          |                                                   | A7.2                                                                                                                |                                                  |
| Sijia Liu                                                                                          | Institute of Automation, CAS                      | 1234 Distributed predefined-time time-varying optimal formation for multi-agent systems                             |                                                  |
| Xiaolin Ai                                                                                         | Institute of Automation, CAS                      | Jin Tan                                                                                                             | Northeastern Univ.                               |
| Zhiqiang Pu                                                                                        | Institute of Automation, CAS                      | Bingjie Wang                                                                                                        | Northeastern Univ.                               |
| 09:36-09:44                                                                                        | A6.13                                             | Tianyuan Wang                                                                                                       | Northeastern Univ.                               |
| 367 自监督 LSTM 增强的视觉惯性里程计                                                                            |                                                   | Tao Yang                                                                                                            | Northeastern Univ.                               |
| Bo Yang                                                                                            | Nanjing Univ. of Posts and Telecommunications     | 08:16-08:24                                                                                                         |                                                  |
| Chao Wang                                                                                          | Shanghai Huace Navigation Technology Co., Ltd.    | A7.3                                                                                                                |                                                  |
| Yifan Zhou                                                                                         | Nanjing Univ. of Posts and Telecommunications     | 1701 基于相对方位测量的相机目标定位系统最优布设与选择                                                                                       |                                                  |
| Feng Zhou                                                                                          | Nanjing Univ. of Posts and Telecommunications     | Liang Zhang                                                                                                         | Anhui Univ.                                      |
| Wenbo Zhang                                                                                        | Nanjing Univ. of Posts and Telecommunications     | 08:24-08:32                                                                                                         |                                                  |
| Jun Xiong                                                                                          | Nanjing Univ. of Posts and Telecommunications     | A7.4                                                                                                                |                                                  |
| 09:44-09:52                                                                                        | A6.14                                             | 1666 Learning-based safe optimal avoidance control for nonlinear systems with dynamic obstacles                     |                                                  |
| 1246 Data-driven synthesis of optimal stealthy attacks in multi-agent systems                      |                                                   | Ping Wang                                                                                                           | Beijing Information Science and Technology Univ. |
| Shiyong Zhu                                                                                        | City Univ. of Hong Kong                           | Chengpu Yu                                                                                                          | Beijing Institute of Technology                  |
| Kangkang Zhang                                                                                     | Nanjing Univ. of Aeronautics and Astronautics     | Junfang Fan                                                                                                         | Beijing Information Science and Technology Univ. |
| Bin Jiang                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     | Maolong Lv                                                                                                          | Air Force Engineering Univ.                      |
|                                                                                                    |                                                   | Bingqi Liu                                                                                                          | Beijing Information Science and Technology Univ. |
|                                                                                                    |                                                   | 08:32-08:40                                                                                                         |                                                  |
|                                                                                                    |                                                   | A7.5                                                                                                                |                                                  |
|                                                                                                    |                                                   | 195 Trajectory optimization for quadrotors using flatness-based differential dynamic programming                    |                                                  |
|                                                                                                    |                                                   | Siyu Zhou                                                                                                           | Beijing Institute of Technology                  |
|                                                                                                    |                                                   | Feiran Xia                                                                                                          | Beijing Institute of Technology                  |
|                                                                                                    |                                                   | Shaoming He                                                                                                         | Beijing Institute of Technology                  |
|                                                                                                    |                                                   | 08:40-08:48                                                                                                         |                                                  |
|                                                                                                    |                                                   | A7.6                                                                                                                |                                                  |
|                                                                                                    |                                                   | 305 UAV-DualSim: a high-fidelity dual-modal UAV dataset via physics-based thermal simulation                        |                                                  |
|                                                                                                    |                                                   | Hailong Xi                                                                                                          | Air Force Engineering Univ.                      |
|                                                                                                    |                                                   | Le Ru                                                                                                               | Air Force Engineering Univ.                      |

|                                                                                                                                               |                                      |                                                                                                                                                               |                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Maolong Lv                                                                                                                                    | Air Force Engineering Univ.          | Chenning Zhang                                                                                                                                                | Xidian Univ.                                           |
| Wenfei Wang                                                                                                                                   | Air Force Engineering Univ.          | Jiaxuan Ren                                                                                                                                                   | Xidian Univ.                                           |
| Rui Zhu                                                                                                                                       | Air Force Engineering Univ.          | Pei Dai                                                                                                                                                       | Xidian Univ.                                           |
| Yang Li                                                                                                                                       | Northwestern Polytechnical Univ.     | Dongzhu Feng                                                                                                                                                  | Xidian Univ.                                           |
| 08:48-08:56                                                                                                                                   | A7.7                                 | 09:52-10:00                                                                                                                                                   | A7.15                                                  |
| <b>306</b> <i>Research on UAV/UGV cooperative formation change and tracking methods</i>                                                       |                                      | <b>1567</b> <i>Performance comparison of multi-parameter estimation in trajectory prediction of reentry glide vehicles and analysis of data scale effects</i> |                                                        |
| Longhao Liu                                                                                                                                   | Air Force Engineering Univ.          | Yichen Liu                                                                                                                                                    | Air Force Engineering Univ.                            |
| Le Ru                                                                                                                                         | Air Force Engineering Univ.          | Chijun Zhou                                                                                                                                                   | Air Force Engineering Univ.                            |
| Yifan Li                                                                                                                                      | Unit 94754                           | Xueqian Wang                                                                                                                                                  | Air Force Engineering Univ.                            |
| 08:56-09:04                                                                                                                                   | A7.8                                 | Jikun Ye                                                                                                                                                      | Air Force Engineering Univ.                            |
| <b>436</b> <i>Three-dimensional optimal cooperative line-of-sight guidance for aircraft active defense</i>                                    |                                      | <b>A8</b> <b>2nd Floor Guilin Room 2</b>                                                                                                                      |                                                        |
| Qunchang Gao                                                                                                                                  | Beijing Institute of Technology      | <b>Intelligent GNC</b> <b>2 层 桂林厅 2</b>                                                                                                                       |                                                        |
| Junhui Li                                                                                                                                     | Beijing Institute of Technology      | Chairs: Bonan Yuan                                                                                                                                            |                                                        |
| Shaoming He                                                                                                                                   | Beijing Institute of Technology      | 08:00-08:08 A8.1                                                                                                                                              |                                                        |
| 09:04-09:12                                                                                                                                   | A7.9                                 | <b>297</b> <i>Robust coordination of humanoid upper-body via adaptive weighted damped least squares</i>                                                       |                                                        |
| <b>517</b> <i>Field-of-view constrained optimal three-dimensional impact angle control guidance</i>                                           |                                      | Yunze Shi                                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
| Tianhao Jiang                                                                                                                                 | Beijing Institute of Technology      | Ziyi Liu                                                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
| Shaoming He                                                                                                                                   | Beijing Institute of Technology      | Bonan Yuan                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |
| 09:12-09:20                                                                                                                                   | A7.10                                | Lei Zhou                                                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>585</b> <i>Manned-unmanned cooperative air combat task allocation strategy: a Hungarian algorithm-based design approach</i>                |                                      | 08:08-08:16 A8.2                                                                                                                                              |                                                        |
| Fangbo Xiao                                                                                                                                   | Air Force Engineering Univ.          | <b>307</b> <i>Cooperative path planning and multi-objective trajectory optimization for dual-arm robotic systems in complex operational environments</i>      |                                                        |
| Tongyu Shi                                                                                                                                    | Air Force Engineering Univ.          | Bonan Yuan                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |
| maolong Lv                                                                                                                                    | Air Force Engineering Univ.          | Chenxiao Jiu                                                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute |
| Xitong Han                                                                                                                                    | Air Force Engineering Univ.          | Qiang Tang                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |
| Chenbo Ding                                                                                                                                   | Air Force Engineering Univ.          | Zhipeng Sun                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |
| 09:20-09:28                                                                                                                                   | A7.11                                | Yunze Shi                                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>586</b> <i>Deep reinforcement learning-based adaptive parameter tuning for UAV swarm trajectory optimization in cluttered environments</i> |                                      | 08:16-08:24 A8.3                                                                                                                                              |                                                        |
| Yuchen Li                                                                                                                                     | Air Force Engineering Univ.          | <b>387</b> <i>Offline genetic algorithm-based PID auto-tuning for embodied intelligent pilot under composite delays</i>                                       |                                                        |
| Maolong Lv                                                                                                                                    | Air Force Engineering Univ.          | Chulei Meng                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |
| Yuntao Xue                                                                                                                                    | Taiyuan Univ. of Technology          | Minghui Zhang                                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute |
| 09:28-09:36                                                                                                                                   | A7.12                                | Hao Wang                                                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>587</b> <i>Adaptive optimization method for drone formation parameters based on deep reinforcement learning</i>                            |                                      | 08:24-08:32 A8.4                                                                                                                                              |                                                        |
| Xuanhao Liang                                                                                                                                 | Air Force Engineering Univ.          | <b>485</b> <i>SLAM and hierarchical fusion for humanoid robot interaction: an aircraft parts explanation assistant</i>                                        |                                                        |
| Maolong Lv                                                                                                                                    | Air Force Engineering Univ.          | Weitong Liu                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |
| Yuntao Xue                                                                                                                                    | Taiyuan Univ. of Technology          | Shaolong Song                                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute |
| 09:36-09:44                                                                                                                                   | A7.13                                | Bowei Wang                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>588</b> <i>Heterogeneous UAV team air confrontation strategy: a SECA-based design approach</i>                                             |                                      |                                                                                                                                                               |                                                        |
| Hengzhi Fan                                                                                                                                   | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| Maolong Lv                                                                                                                                    | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| Shuaijie Wang                                                                                                                                 | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| Chenbo Ding                                                                                                                                   | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| Jiaheng Tang                                                                                                                                  | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| Jinhe Wang                                                                                                                                    | Air Force Engineering Univ.          |                                                                                                                                                               |                                                        |
| 09:44-09:52                                                                                                                                   | A7.14                                |                                                                                                                                                               |                                                        |
| <b>836</b> <i>Connectivity-driven self-organizing task routing for UAV swarms in low-altitude denied environments</i>                         |                                      |                                                                                                                                                               |                                                        |
| Chenkai Zhang                                                                                                                                 | Xidian Univ.                         |                                                                                                                                                               |                                                        |
| Kaixuan Kang                                                                                                                                  | Univ. of Chinese Academy of Sciences |                                                                                                                                                               |                                                        |

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|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Xiaole Xu                                                                                                | Control Research Institute<br>AVIC Xi'an Flight Automatic        | Lei Zhou                                                                                                                    | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Yifan Ge                                                                                                 | Control Research Institute<br>AVIC Xi'an Flight Automatic        | Bonan Yuan                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Xiwen Yao                                                                                                | Control Research Institute<br>Northwestern Polytechnical Univ.   | Zhipeng Sun                                                                                                                 | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| 08:32-08:40                                                                                              | A8.5                                                             | Ziyi Liu                                                                                                                    | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| <b>672</b> 基于混合现实技术的机场空管显示系统的设计与实现                                                                       |                                                                  |                                                                                                                             |                                                                  |
| Hao Wang                                                                                                 | National Key Laboratory of Aircraft<br>Integrated Flight Control | 09:20-09:28                                                                                                                 | A8.11                                                            |
| Minghui Zhang                                                                                            | National Key Laboratory of Aircraft<br>Integrated Flight Control | <b>1466</b> Ensuring safety in autonomous aircraft manipulation via time-optimal planning and multi-modal compliant control |                                                                  |
| 08:40-08:48                                                                                              | A8.6                                                             | Kaihao Wen                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| <b>759</b> intelligent autonomous obstacle avoidance and control for small high-speed fixed-wing UAVs    |                                                                  |                                                                                                                             |                                                                  |
| Linqi Zhan                                                                                               | Tsinghua Univ.                                                   | Dihong Pan                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Kang Wang                                                                                                | Tsinghua Univ.                                                   | Zhipeng Sun                                                                                                                 | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| 08:48-08:56                                                                                              | A8.7                                                             | Weijia Wang                                                                                                                 | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| <b>858</b> Pilot agent technology: framework, applications and challenges                                |                                                                  |                                                                                                                             |                                                                  |
| Rong Ma                                                                                                  | National Key Laboratory of Aircraft<br>Integrated Flight Control | Rong Ma                                                                                                                     | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Weijia Wang                                                                                              | National Key Laboratory of Aircraft<br>Integrated Flight Control | 09:28-09:36                                                                                                                 | A8.12                                                            |
| Zhipeng Sun                                                                                              | National Key Laboratory of Aircraft<br>Integrated Flight Control | <b>1488</b> Task-oriented motion planning method for manipulator system in aviation scenarios                               |                                                                  |
| Dihong Pan                                                                                               | National Key Laboratory of Aircraft<br>Integrated Flight Control | Dihong Pan                                                                                                                  | National Key Laboratory of Aircraft<br>Integrated Flight Control |
| Kaihao Wen                                                                                               | National Key Laboratory of Aircraft<br>Integrated Flight Control | Kaihao Wen                                                                                                                  | National Key Laboratory of Aircraft<br>Integrated Flight Control |
| 08:56-09:04                                                                                              | A8.8                                                             | Weijia Wang                                                                                                                 | National Key Laboratory of Aircraft<br>Integrated Flight Control |
| <b>872</b> 人形机器人髋膝关节驱动机构设计与参数优化                                                                          |                                                                  |                                                                                                                             |                                                                  |
| Chi Zhang                                                                                                | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Zhipeng Sun                                                                                                                 | National Key Laboratory of Aircraft<br>Integrated Flight Control |
| Kexin Dang                                                                                               | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Rong Ma                                                                                                                     | National Key Laboratory of Aircraft<br>Integrated Flight Control |
| Bonan Yuan                                                                                               | AVIC Xi'an Flight Automatic<br>Control Research Institute        | 09:36-09:44                                                                                                                 | A8.13                                                            |
| Wei Zhang                                                                                                | AVIC Xi'an Flight Automatic<br>Control Research Institute        | <b>1740</b> Task-conditioned modeling and control strategies for dual-arm manipulation: a concise critical review           |                                                                  |
| 09:04-09:12                                                                                              | A8.9                                                             | Ziyi Liu                                                                                                                    | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| <b>1362</b> Voice coordination and formation control for airborne operations based on collaborative tags |                                                                  |                                                                                                                             |                                                                  |
| Quanlin Qi                                                                                               | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Yunze Shi                                                                                                                   | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Ziming Liu                                                                                               | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Bonan Yuan                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Jinzhao Zhang                                                                                            | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Yuda Gao                                                                                                                    | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| Weijia Wang                                                                                              | AVIC Xi'an Flight Automatic<br>Control Research Institute        | Kexin Dang                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| 09:12-09:20                                                                                              | A8.10                                                            | Yuxuan Sun                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute        |
| <b>1442</b> 分层解耦式 MIT 控制参数自动化测试系统设计与应用                                                                   |                                                                  |                                                                                                                             |                                                                  |
| Yuxuan Sun                                                                                               | AVIC Xi'an Flight Automatic<br>Control Research Institute        | 09:44-09:52                                                                                                                 | A8.14                                                            |
| Yuda Gao                                                                                                 | AVIC Xi'an Flight Automatic<br>Control Research Institute        | <b>449</b> Low-frequency deployment of whole-body control algorithm for humanoid robots based on prioritized tasks          |                                                                  |
|                                                                                                          |                                                                  | Guanjie Wang                                                                                                                | AVIC Xi'an Flight Automatic Control<br>Research Institute        |
|                                                                                                          |                                                                  | Yunze Shi                                                                                                                   | AVIC Xi'an Flight Automatic Control<br>Research Institute        |
|                                                                                                          |                                                                  | Ke Yu                                                                                                                       | AVIC Xi'an Flight Automatic Control                              |

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|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Research Institute                                                                                                      |                                                       | Jieping Yu                                                                                                                                                          | Beijing Institute of Automatic                   |
| 09:52-10:00                                                                                                             | A8.15                                                 | Chunyu Qu                                                                                                                                                           | Control Equipment                                |
| <b>515</b> <i>Technical requirements for comprehensive testing of modular wires in civil aircraft EWIS</i>              |                                                       | Beihang Univ.                                                                                                                                                       |                                                  |
| Ci An                                                                                                                   | COMAC Shanghai Aircraft Design and Research Institute | 08:40-08:48                                                                                                                                                         | A9.6                                             |
| <b>A9</b>                                                                                                               | <b>2nd Floor Guilin Room 2</b>                        | <b>465</b> <i>Multi-AUV cooperative navigation with out-of-sequence measurement compensation and deep learning-based process noise modeling</i>                     |                                                  |
| <b>Recognition GNC</b>                                                                                                  | <b>2 层 桂林厅 2</b>                                      | Kewei Yu                                                                                                                                                            | Beijing Institute of Technology                  |
| Chairs: Qingkai Meng                                                                                                    |                                                       | Zhaonan Jiao                                                                                                                                                        | Beijing Institute of Technology                  |
| 08:00-08:08                                                                                                             | A9.1                                                  | Shengwu Zhao                                                                                                                                                        | Beijing Institute of Technology                  |
| <b>102</b> <i>CY-LIO: LIDAR-Inertial SLAM enhanced by semantic segmentation</i>                                         |                                                       | Zhihong Deng                                                                                                                                                        | Beijing Institute of Technology                  |
| Qiang Xu                                                                                                                | Nanjing Univ. of Science and Technology               | 08:48-08:56                                                                                                                                                         | A9.7                                             |
| Liu He                                                                                                                  | Nanjing Univ. of Science and Technology               | <b>1203</b> <i>learning-based gait sequence prediction-assisted key event detection for foot kinematics/INS integrated positioning</i>                              |                                                  |
| Siyuan Chen                                                                                                             | Nanjing Univ. of Science and Technology               | Ping Zhang                                                                                                                                                          | Beijing Institute of Technology                  |
| Li Yang                                                                                                                 | Nanjing Univ. of Science and Technology               | Zhihong Deng                                                                                                                                                        | Beijing Institute of Technology                  |
| 08:08-08:16                                                                                                             | A9.2                                                  | Wenhao Qi                                                                                                                                                           | Beijing Institute of Technology                  |
| <b>116</b> <i>Inertial initial alignment method based on multi-depth temporal convolutional networks in GNSS-Denied</i> |                                                       | Jiesi Dong                                                                                                                                                          | Beijing Institute of Technology                  |
| Hongxuan Che                                                                                                            | Nanjing Univ. of Science and Technology               | 08:56-09:04                                                                                                                                                         | A9.8                                             |
| Jinwen Wang                                                                                                             | Nanjing Univ. of Science and Technology               | <b>1395</b> <i>Direction-enhanced attention for point cloud semantic segmentation in railway scenes</i>                                                             |                                                  |
| Jiachao Wu                                                                                                              | Nanjing Univ. of Science and Technology               | Qingchen Zhou                                                                                                                                                       | Nanjing Univ. of Science and Technology          |
| Xian Wu                                                                                                                 | Nanjing Univ. of Science and Technology               | Liu He                                                                                                                                                              | Nanjing Univ. of Science and Technology          |
| 08:16-08:24                                                                                                             | A9.3                                                  | Li Yang                                                                                                                                                             | Nanjing Univ. of Science and Technology          |
| <b>159</b> <i>Kinematic benchmark driven body odometer for step parameters estimation in pedestrian dead reckoning</i>  |                                                       | Wei Zhou                                                                                                                                                            | Nanjing Univ. of Science and Technology          |
| Zhe Li                                                                                                                  | Beijing Institute of Technology                       | 09:04-09:12                                                                                                                                                         | A9.9                                             |
| Sizhu Ren                                                                                                               | Beijing Institute of Technology                       | <b>1400</b> <i>RCPPO: Dynamic obstacle avoidance with spatiotemporal attention and topology-constrained reinforcement learning</i>                                  |                                                  |
| Zhihong Deng                                                                                                            | Beijing Institute of Technology                       | Chao Wan                                                                                                                                                            | Nanjing Univ. of Science and Technology          |
| 08:24-08:32                                                                                                             | A9.4                                                  | Liu He                                                                                                                                                              | Nanjing Univ. of Science and Technology          |
| <b>261</b> <i>Attention-Guided fusion module for refining cross-view feature interaction in UAV localization</i>        |                                                       | Siyuan Chen                                                                                                                                                         | Nanjing Univ. of Science and Technology          |
| Peng Wan                                                                                                                | Nanjing Univ. of Science and Technology               | Li Yang                                                                                                                                                             | Nanjing Univ. of Science and Technology          |
| Yiyang Xu                                                                                                               | Nanjing Univ. of Science and Technology               | 09:12-09:20                                                                                                                                                         | A9.10                                            |
| Linfei Tian                                                                                                             | Nanjing Univ. of Science and Technology               | <b>1747</b> <i>Deep learning-based full-temperature compensation method for damping non-uniformity drift in whole-angle mode hemispherical resonator gyroscopes</i> |                                                  |
| Yichen Wang                                                                                                             | Nanjing Univ. of Science and technology               | Haoqian Zhang                                                                                                                                                       | Tianjin Navigation Instrument Research Institute |
| Xiangyi Ma                                                                                                              | Nanjing Univ. of Science and technology               | Yuanyuan Shi                                                                                                                                                        | Tianjin Navigation Instrument Research Institute |
| Xiaomo Wen                                                                                                              | Nanjing Univ. of Science and Technology               | Songpu Yang                                                                                                                                                         | Tianjin Navigation Instrument Research Institute |
| 08:32-08:40                                                                                                             | A9.5                                                  | Chenkai Jia                                                                                                                                                         | Tianjin Navigation Instrument Research Institute |
| <b>325</b> <i>LSTM-Enhanced system-level calibration for attitude determination in MEMS RMINS</i>                       |                                                       | Chunlei Ding                                                                                                                                                        | Tianjin Navigation Instrument Research Institute |
| Ansheng Chen                                                                                                            | Beihang Univ.                                         | 09:20-09:28                                                                                                                                                         | A9.11                                            |
| Jianli Li                                                                                                               | Beihang Univ.                                         | <b>278</b> <i>Design of a high-precision magnetic gradient control system for SERF gyroscopes based on LADRC</i>                                                    |                                                  |
|                                                                                                                         |                                                       | Senhua Lei                                                                                                                                                          | Beihang Univ.                                    |
|                                                                                                                         |                                                       | Xusheng Lei                                                                                                                                                         | Beihang Univ.                                    |
|                                                                                                                         |                                                       | Zhihong Wu                                                                                                                                                          | Beihang Univ.                                    |
|                                                                                                                         |                                                       | Yanshen Huang                                                                                                                                                       | Beihang Univ.                                    |

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| Haoying Pang                                                                                                                           |  | Beihang Univ.                                          |  | Shaolong Song                                                                                                                 |  | AVIC Xi'an Flight Automatic Control Research Institute |  |
| 09:28-09:36                                                                                                                            |  | A9.12                                                  |  | Yuda Gao                                                                                                                      |  | AVIC Xi'an Flight Automatic Control Research Institute |  |
| <b>1514</b> <i>A CAR and Multi-Lock MVMD-based denoising method for MCG signals</i>                                                    |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Runqi Pan                                                                                                                              |  | Beihang Univ.                                          |  | 08:16-08:24                                                                                                                   |  | A10.3                                                  |  |
| Xinxu Zhou                                                                                                                             |  | Beihang Univ.                                          |  | <b>217</b> <i>A localizer control method based on trajectory planning for civil aircraft</i>                                  |  |                                                        |  |
| Wenlei Zhao                                                                                                                            |  | Beihang Univ.                                          |  | Shenjiang Wang                                                                                                                |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| 09:36-09:44                                                                                                                            |  | A9.13                                                  |  | Haonan Xu                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| <b>595</b> <i>From reactive safety to proactive reconfiguration: A geometric game-theoretic approach to safe UAV formation control</i> |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Shuxian Yang                                                                                                                           |  | Nanjing Univ. of Aeronautics and Astronautics          |  | 08:24-08:32                                                                                                                   |  | A10.4                                                  |  |
| Qingkai Meng                                                                                                                           |  | Nanjing Univ. of Aeronautics and Astronautics          |  | <b>378</b> <i>A comparative study of model order reduction algorithms for high-fidelity aeroelastic civil aircraft models</i> |  |                                                        |  |
| Hao Yang                                                                                                                               |  | Nanjing Univ. of Aeronautics and Astronautics          |  | Shuo chang                                                                                                                    |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Bin Jiang                                                                                                                              |  | Nanjing Univ. of Aeronautics and Astronautics          |  | Yingchun Shen                                                                                                                 |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| 09:44-09:52                                                                                                                            |  | A9.14                                                  |  | 08:32-08:40                                                                                                                   |  | A10.5                                                  |  |
| <b>521</b> <i>Conic trajectory based adaptive terminal guidance strategy with impact angle constraints</i>                             |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Kaiyu Suo                                                                                                                              |  | AVIC Xi'an Flight Automatic Control Research Institute |  | Weijie Lyu                                                                                                                    |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Longzhen Hu                                                                                                                            |  | AVIC Xi'an Flight Automatic Control Research Institute |  | Jiahao Zhang                                                                                                                  |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Xiaofeng Sun                                                                                                                           |  | AVIC Xi'an Flight Automatic Control Research Institute |  | Chao Zhou                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Erzhuo Niu                                                                                                                             |  | AVIC Xi'an Flight Automatic Control Research Institute |  | Zeyu Kang                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Yu Fan                                                                                                                                 |  | AVIC Xi'an Flight Automatic Control Research Institute |  | 08:40-08:48                                                                                                                   |  | A10.6                                                  |  |
| <b>911</b> <i>Research on the voting mechanism for flight control systems utilizing triple-redundant flight management signals</i>     |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| 09:52-10:00                                                                                                                            |  | A9.15                                                  |  | Ziyan Shao                                                                                                                    |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| <b>544</b> <i>A modeling and analysis method for UAV swarm air combat based on the lancaster equation</i>                              |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Xiaoguang Wang                                                                                                                         |  | Air Force Engineering Univ.                            |  | Ziqin Xu                                                                                                                      |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Xiaoping Wang                                                                                                                          |  | Air Force Engineering Univ.                            |  | Chang Liu                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Hongbo Li                                                                                                                              |  | Air Force Engineering Univ.                            |  | 08:48-08:56                                                                                                                   |  | A10.7                                                  |  |
| <b>A10</b>                                                                                                                             |  | <b>2nd Floor VIP Room 2</b>                            |  | <b>944</b> <i>Design of the control law for the Auto-Throttle speed mode based on speed guidance</i>                          |  |                                                        |  |
| <b>Aircraft GNC</b>                                                                                                                    |  | <b>2 层 贵宾厅 2</b>                                       |  | Chao Zhou                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Chairs: Zibo Wei                                                                                                                       |  |                                                        |  | Jianwei Guo                                                                                                                   |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| 08:00-08:08                                                                                                                            |  | A10.1                                                  |  | Jing Xu                                                                                                                       |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| <b>821</b> <i>Robust control of morphing flight based on linear active disturbance rejection method</i>                                |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Jing Xu                                                                                                                                |  | COMAC Shanghai Aircraft Design and Research Institute  |  | Jiahao Zhang                                                                                                                  |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Zeyu Kang                                                                                                                              |  | COMAC Shanghai Aircraft Design and Research Institute  |  | Weijie Lyu                                                                                                                    |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| Zibo Wei                                                                                                                               |  | COMAC Shanghai Aircraft Design and Research Institute  |  | 08:56-09:04                                                                                                                   |  | A10.8                                                  |  |
| Chao Zhou                                                                                                                              |  | COMAC Shanghai Aircraft Design and Research Institute  |  | <b>1153</b> <i>Analysis of glide path deviation signals and redundancy management for civil aircraft</i>                      |  |                                                        |  |
| 08:08-08:16                                                                                                                            |  | A10.2                                                  |  | Chang Liu                                                                                                                     |  | COMAC Shanghai Aircraft Design and Research Institute  |  |
| <b>315</b> 基于 FastLio2 与 2D 适配 EgoPlanner 的机器人激光雷达感知与运动规划算法工程实现                                                                        |  |                                                        |  |                                                                                                                               |  |                                                        |  |
| Zitong Yang                                                                                                                            |  | AVIC Xi'an Flight Automatic Control Research Institute |  | Haonan Xu                                                                                                                     |  | COMAC Shanghai Aircraft Design                         |  |

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|                                                                                                                                                          | and Research Institute                                | <b>1716</b> <i>Safety Analysis and Design of a Stall Protection System Based on Simulink Modeling</i>                                                                       |                                                              |
| Ziqin Xu                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute | Bei Liu                                                                                                                                                                     | COMAC Shanghai Aircraft Design and Research Institute        |
| 09:04-09:12                                                                                                                                              | A10.9                                                 | Zhaoliang Zhang                                                                                                                                                             | COMAC Shanghai Aircraft Design and Research Institute        |
| <b>1174</b> <i>An AFCS-based adaptive flare control method for civil aircraft CAT III autoland</i>                                                       |                                                       | Kezhi Zhang                                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute        |
| Zeyu Kang                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | Haowen Wu                                                                                                                                                                   | Shanghai Aircraft Airworthiness Certification Center of CAAC |
| Peng Xie                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute | Yue Shen                                                                                                                                                                    | Shanghai Aircraft Airworthiness Certification Center of CAAC |
| Zibo Wei                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute | 09:52-10:00                                                                                                                                                                 | A10.15                                                       |
| Chenyang Zhao                                                                                                                                            | COMAC Shanghai Aircraft Design and Research Institute | <b>453</b> <i>Research on UAV task allocation algorithm based on adaptive exploration D3QN</i>                                                                              |                                                              |
| Haonan Xu                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | Yingke Liu                                                                                                                                                                  | Northwestern Polytechnical Univ.                             |
| Qiang Shen                                                                                                                                               | Shanghai Jiao Tong Univ.                              | Zuo Li                                                                                                                                                                      | Northwestern Polytechnical Univ.                             |
| 09:12-09:20                                                                                                                                              | A10.10                                                | Yunpeng Cai                                                                                                                                                                 | Northwestern Polytechnical Univ.                             |
| <b>1181</b> <i>Research on the timing-threshold consistency design method for multiple monitors in civil aircraft fly-by-wire flight control systems</i> |                                                       | Zongwei Chai                                                                                                                                                                | Northwestern Polytechnical Univ.                             |
| Zhengyu Xie                                                                                                                                              | COMAC Shanghai Aircraft Design and Research Institute | Xiaoxiong Liu                                                                                                                                                               | Northwestern Polytechnical Univ.                             |
| Qi Chen                                                                                                                                                  | COMAC Shanghai Aircraft Design and Research Institute | <b>A11</b>                                                                                                                                                                  | <b>2nd Floor Beihai Room</b>                                 |
| Xiaomei Wang                                                                                                                                             | COMAC Shanghai Aircraft Design and Research Institute | <b>Best Paper</b>                                                                                                                                                           | <b>2 层 北海厅</b>                                               |
| 09:20-09:28                                                                                                                                              | A10.11                                                | 08:00-08:10                                                                                                                                                                 | A11.1                                                        |
| <b>1241</b> <i>Design of go-around guidance control law for civil aircraft based on fault adaptation and FPA constraint</i>                              |                                                       | <b>227</b> <i>Fault attribution for dual-redundant irs via adaptive multi-scale sprt</i>                                                                                    |                                                              |
| Runmu Yang                                                                                                                                               | COMAC Shanghai Aircraft Design and Research Institute | Yuanmiao Niu                                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute        |
| Zibo Wei                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute | Kezhi Zhang                                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute        |
| Shenjiang Wang                                                                                                                                           | COMAC Shanghai Aircraft Design and Research Institute | Haowen Wu                                                                                                                                                                   | Shanghai Aircraft Airworthiness Certification Center of CAAC |
| 09:28-09:36                                                                                                                                              | A10.12                                                | Yue Shen                                                                                                                                                                    | Shanghai Aircraft Airworthiness Certification Center of CAAC |
| <b>1418</b> <i>Distributed flight control system design based on multi-agent technology</i>                                                              |                                                       | Zhaoliang Zhang                                                                                                                                                             | COMAC Shanghai Aircraft Design and Research Institute        |
| Hongyan Hu                                                                                                                                               | COMAC Shanghai Aircraft Design and Research Institute | 08:10-08:20                                                                                                                                                                 | A11.2                                                        |
| Peng Zhao                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | <b>1060</b> <i>Dual-Arm drive-control system for an embodied intelligent pilot: spherical arc task mapping, base design, and closed-loop flight simulation verification</i> |                                                              |
| 09:36-09:44                                                                                                                                              | A10.13                                                | Zhipeng Sun                                                                                                                                                                 | AVIC First Aircraft Design and Research Institute            |
| <b>1487</b> <i>Sensitivity analysis of automatic landing systems based on random forest</i>                                                              |                                                       | Bonan Yuan                                                                                                                                                                  | AVIC First Aircraft Design and Research Institute            |
| Qinyu Wei                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | Rong Ma                                                                                                                                                                     | AVIC First Aircraft Design and Research Institute            |
| Jianfeng Miao                                                                                                                                            | COMAC Shanghai Aircraft Design and Research Institute | Dihong Pan                                                                                                                                                                  | AVIC First Aircraft Design and Research Institute            |
| Haonan Xu                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | Kaihao Wen                                                                                                                                                                  | AVIC First Aircraft Design and Research Institute            |
| Kaiyu LI                                                                                                                                                 | COMAC Shanghai Aircraft Design and Research Institute | 08:20-08:30                                                                                                                                                                 | A11.3                                                        |
| Zeyu Kang                                                                                                                                                | COMAC Shanghai Aircraft Design and Research Institute | <b>1339</b> <i>Closed-Loop performance assessment and generalized importance measure under multi-source uncertainty: A case study on electro-hydrostatic actuator</i>       |                                                              |
| 09:44-09:52                                                                                                                                              | A10.14                                                | Rentong Chen                                                                                                                                                                | Beihang Univ.                                                |
|                                                                                                                                                          |                                                       | Pengcheng Ren                                                                                                                                                               | Beihang Univ.                                                |
|                                                                                                                                                          |                                                       | Yuwei Zhang                                                                                                                                                                 | Beihang Univ.                                                |
|                                                                                                                                                          |                                                       | Chao Zhang                                                                                                                                                                  | Beihang Univ.                                                |

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|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Xingjian Wang                                                                                                               | Beihang Univ.                                  | Encheng Dai                                                                                                                                            | Rocket Force Univ. of Engineering             |
| Rui Mu                                                                                                                      | Beihang Univ.                                  | Guangbin Cai                                                                                                                                           | Rocket Force Univ. of Engineering             |
| Shaoping Wang                                                                                                               | Beihang Univ.                                  | Hui Xu                                                                                                                                                 | Rocket Force Univ. of Engineering             |
| 08:30-08:40                                                                                                                 | A11.4                                          | Hao Wei                                                                                                                                                | Rocket Force Univ. of Engineering             |
| <b>1357</b> Enhancing LVI-SAM for ground vehicles with ground-aware vertical correction and scan context-based loop closure |                                                | Yonghua Fan                                                                                                                                            | Northwestern Polytechnical Univ.              |
| Guochen Niu                                                                                                                 | Civil Aviation Administration of China         | 10:00-10:10                                                                                                                                            | A11.12                                        |
| Yuchen Liu                                                                                                                  | Civil Aviation Univ. of China                  | <b>744</b> 基于最短路径树的多分支线缆布线优化方法                                                                                                                         |                                               |
| Dandan Hu                                                                                                                   | Civil Aviation Univ. of China                  | Chenxi Wang                                                                                                                                            | National Univ. of Defense Technology          |
| 08:40-08:50                                                                                                                 | A11.5                                          | Xianqi Chen                                                                                                                                            | Chinese Academy of Military Science           |
| <b>146</b> 基于通用障碍函数的无拖曳航天器姿轨耦合自适应约束控制                                                                                       |                                                | Yufeng Xia                                                                                                                                             | Chinese Academy of Military Science           |
| Haoyu Zheng                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics  | Weien Zhou                                                                                                                                             | Chinese Academy of Military Science           |
| Xiaoyun Sun                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics  | Wen Yao                                                                                                                                                | Chinese Academy of Military Science           |
| Shufan Wu                                                                                                                   | Shanghai Jiao Tong Univ.                       | 10:10-10:20                                                                                                                                            | A11.13                                        |
| 08:50-09:00                                                                                                                 | A11.6                                          | <b>780</b> Distributed online aggregative optimization using mirror descent                                                                            |                                               |
| <b>281</b> A partial-perception-driven three-layer formation framework for UAV swarm                                        |                                                | Kunpeng Zhang                                                                                                                                          | Northeastern Univ.                            |
| Jiamin Jin                                                                                                                  | City Univ. of Macau                            | Lei Xu                                                                                                                                                 | KTH Royal Institute of Technology             |
| Wei Yu                                                                                                                      | City Univ. of Macau                            | Xinlei Yi                                                                                                                                              | Tongji Univ.                                  |
| Wendi Zhan                                                                                                                  | Sun Yat-sen Univ.                              | Ming Cao                                                                                                                                               | Univ. of Groningen                            |
| Jingyi Li                                                                                                                   | City Univ. of Macau                            | Karl H. Johansson                                                                                                                                      | KTH Royal Institute of Technology             |
| 09:00-09:10                                                                                                                 | A11.7                                          | Tianyou Chai                                                                                                                                           | Northeastern Univ.                            |
| <b>388</b> Three-dimensional elliptical multi-orbit enclosing: a control framework for UAVs                                 |                                                | Tao Yang                                                                                                                                               | Northeastern Univ.                            |
| Zhen Wang                                                                                                                   | Northeastern Univ.                             | 10:20-10:30                                                                                                                                            | A11.14                                        |
| Shunwei Hu                                                                                                                  | Northeastern Univ.                             | <b>928</b> Attitude estimation using angular accelerometer via deep learning-based denoising                                                           |                                               |
| Fanghua Tang                                                                                                                | Northeastern Univ.                             | Chaoyang Zhai                                                                                                                                          | Beijing Institute of Technology               |
| Yanhong Luo                                                                                                                 | Northeastern Univ.                             | Meiling Wang                                                                                                                                           | Beijing Institute of Technology               |
| 09:10-09:20                                                                                                                 | A11.8                                          | Zexuan Zhou                                                                                                                                            | Beijing Institute of Technology               |
| <b>470</b> Bio-inspired distributed synchronization control for UAV swarm via pigeon flock splitting interaction            |                                                | Renjie Li                                                                                                                                              | Beijing Institute of Technology               |
| Zhaoyu Zhang                                                                                                                | Beihang Univ.                                  | 10:30-10:40                                                                                                                                            | A11.15                                        |
| Haibin Duan                                                                                                                 | Beihang Univ.                                  | <b>963</b> From convex safe corridors to smooth virtual tubes: a geometry-aware framework for multi-robot cooperative navigation                       |                                               |
| Yongqiong Yuan                                                                                                              | China Electronics Technology Group Corporation | Yusheng Lu                                                                                                                                             | Dalian Maritime Univ.                         |
| Chen Wei                                                                                                                    | Beihang Univ.                                  | YanJun Liu                                                                                                                                             | Liaoning Univ. of Technology                  |
| 09:20-09:30                                                                                                                 | A11.9                                          | Shu Li                                                                                                                                                 | Liaoning Univ. of Technology                  |
| <b>668</b> Interactive disentangled representation learning for robust SAR-optical remote sensing image retrieval           |                                                | Dapeng Li                                                                                                                                              | Liaoning Univ. of Technology                  |
| Peiyuan Ma                                                                                                                  | Northwestern Polytechnical Univ.               | 10:40-10:50                                                                                                                                            | A11.16                                        |
| Yimin Fu                                                                                                                    | Northwestern Polytechnical Univ.               | <b>996</b> Hierarchical fault-tolerant control for unmanned helicopters: a distributed solution with global nash equilibrium                           |                                               |
| Zhunga Liu                                                                                                                  | Northwestern Polytechnical Univ.               | Wenjie Jiang                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics |
| Songbo Wang                                                                                                                 | Northwestern Polytechnical Univ.               | Bingxiang Liao                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics |
| 09:30-09:40                                                                                                                 | A11.10                                         | Yuhang xu                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics |
| <b>688</b> Deep reinforcement learning for aircraft turnaround scheduling with heterogeneous resources constraints          |                                                | Bin Jiang                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics |
| Yixuan Fan                                                                                                                  | Tsinghua Univ.                                 | 10:50-11:00                                                                                                                                            | A11.17                                        |
| Haixu Li                                                                                                                    | Tsinghua Univ.                                 | <b>1131</b> Composite anti-disturbance strategy of adaptive extended kalman filter and tube-based model predictive control for UAV trajectory tracking |                                               |
| Mengqiao Liu                                                                                                                | Tsinghua Univ.                                 | Jiarui Chen                                                                                                                                            | South China Univ. of Technology               |
| Tao Xue                                                                                                                     | Tsinghua Univ.                                 | Hailong Pei                                                                                                                                            | South China Univ. of Technology               |
| Tao Zhang                                                                                                                   | Tsinghua Univ.                                 | 11:00-11:10                                                                                                                                            | A11.18                                        |
| 09:40-09:50                                                                                                                 | A11.11                                         | <b>1137</b> A blockchain-integrated C-SLAM framework for multi-robot systems                                                                           |                                               |
| <b>736</b> Adaptive reentry guidance for hypersonic vehicles in no-fly zones via reinforcement learning                     |                                                |                                                                                                                                                        |                                               |

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|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Wei Yue                                                                                                                                        | Zhejiang Univ.                          | Weijia Chen                                                                                                                     | Shandong Univ.                                         |
| Chengcheng Zhao                                                                                                                                | Zhejiang Univ.                          | Jingtao Shi                                                                                                                     | Shandong Univ.                                         |
| Peng Cheng                                                                                                                                     | Zhejiang Univ.                          | 08:00-10:00                                                                                                                     | A12.3                                                  |
| 11:10-11:20                                                                                                                                    | A11.19                                  | <b>262</b> Cooperative trajectory planning for aerial refueling via adaptive sequential convex optimization                     |                                                        |
| <b>1228</b> A distributed event-triggered reinforcement learning approach for containment control of heterogeneous multi-agent systems         |                                         | Zimeng Wu                                                                                                                       | Northwestern Polytechnical Univ.                       |
| Mengna Quan                                                                                                                                    | Guangxi Normal Univ.                    | Zhuoyi Wang                                                                                                                     | Northwestern Polytechnical Univ.                       |
| Shanlin Sun                                                                                                                                    | Guilin Univ. of Aerospace Technology    | Su Yang                                                                                                                         | Northwestern Polytechnical Univ.                       |
| Shike Long                                                                                                                                     | Guilin Univ. of Aerospace Technology    | Yaohong Qu                                                                                                                      | Northwestern Polytechnical Univ.                       |
| 11:20-11:30                                                                                                                                    | A11.20                                  | 08:00-10:00                                                                                                                     | A12.4                                                  |
| <b>1242</b> A weighted intelligent encirclement method based on reinforcement learning for multiple pursuers under complex environments        |                                         | <b>360</b> EKOA:一种用于无人机三维航迹规划的高效开普勒优化算法                                                                                         |                                                        |
| Wendixin Lai                                                                                                                                   | Kunming Univ. of Science and Technology | Hao Yang                                                                                                                        | AVIC Chengdu Aircraft Design and Research Institute    |
| Chunxi Yang                                                                                                                                    | Kunming Univ. of Science and Technology | Zhaoxu Yang                                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute    |
| Xiufeng Zhang                                                                                                                                  | Kunming Univ. of Science and Technology | Chenggang Tao                                                                                                                   | AVIC Chengdu Aircraft Design and Research Institute    |
| Jing Na                                                                                                                                        | Kunming Univ. of Science and Technology | TianCai Wan                                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute    |
| Jiande Wu                                                                                                                                      | Yunnan Univ.                            | 08:00-10:00                                                                                                                     | A12.5                                                  |
| 11:30-11:40                                                                                                                                    | A11.21                                  | <b>383</b> Disturbance-resilient formation control of multi-UAVs based on barrier function                                      |                                                        |
| <b>1252</b> Continuous-time monte carlo tree search with physical priors and event-driven replanning for multi-agent multi-target interception |                                         | Ruian Wang                                                                                                                      | Shandong Univ. of Aeronautics                          |
| Yuhao Yan                                                                                                                                      | Harbin Institute of Technology          | Tong Mei                                                                                                                        | Shandong Univ. of Aeronautics                          |
| Xinran Zhang                                                                                                                                   | Harbin Institute of Technology          | Wei Hao                                                                                                                         | Shandong Univ. of Aeronautics                          |
| Zhaochen Lin                                                                                                                                   | Harbin Institute of Technology          | Bin Zhang                                                                                                                       | Shandong Univ. of Aeronautics                          |
| Tianyu Zheng                                                                                                                                   | Harbin Institute of Technology          | Wenlai Ma                                                                                                                       | Shandong Univ. of Aeronautics                          |
| Yu Yao                                                                                                                                         | Harbin Institute of Technology          | 08:00-10:00                                                                                                                     | A12.6                                                  |
| Fenghua He                                                                                                                                     | Harbin Institute of Technology          | <b>402</b> Non-singular Incremental fault-tolerant control for aircraft with adjustable predefined-time convergence performance |                                                        |
| 11:40-11:50                                                                                                                                    | A11.22                                  | Shan Huang                                                                                                                      | Northwestern Polytechnical Univ.                       |
| <b>1553</b> MALHA: Language-guided hierarchical coordination for multi-agent systems                                                           |                                         | Yihua Hu                                                                                                                        | Aviation Industry Development Research Center of China |
| Weihao Zhang                                                                                                                                   | Univ. of Chinese Academy of Science     | Jiahang Lai                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
| Zhiqiang Pu                                                                                                                                    | Univ. of Chinese Academy of Science     | Jingping Shi                                                                                                                    | Northwestern Polytechnical Univ.                       |
| Yuan Wang                                                                                                                                      | Univ. of Chinese Academy of Science     | Yongxi Lyu                                                                                                                      | Northwestern Polytechnical Univ.                       |
| Chengjie Sun                                                                                                                                   | Harbin Institute of Technology          | Zhihui Du                                                                                                                       | Northwestern Polytechnical Univ.                       |
| Xiaolin Ai                                                                                                                                     | Univ. of Chinese Academy of Science     | 08:00-10:00                                                                                                                     | A12.7                                                  |
| Min Chen                                                                                                                                       | Univ. of Chinese Academy of Science     | <b>418</b> Observer-augmented transformer-based model predictive control for quadrotor trajectory tracking                      |                                                        |
| <b>A12</b>                                                                                                                                     | <b>2nd Floor Aisel</b>                  | Haining Zhao                                                                                                                    | Hefei Univ. of Technology                              |
| <b>Poster Session</b>                                                                                                                          | <b>2 层连廊厅</b>                           | Tao Wang                                                                                                                        | Hefei Univ. of Technology                              |
| Chairs: Xiaoran Li                                                                                                                             |                                         | Pengfei Li                                                                                                                      | Univ. of Science and Technology of China               |
| 08:00-10:00                                                                                                                                    | A12.1                                   | Jian Di                                                                                                                         | Univ. of Science and Technology of China               |
| <b>149</b> Research of high-dimensional multi-objective vehicle-to-everything task offloading control under dynamic constraint scenarios       |                                         | Yu Kang                                                                                                                         | Hefei Univ. of Technology                              |
| Qian Wang                                                                                                                                      | Taiyuan Univ. of Science and Technology | 08:00-10:00                                                                                                                     | A12.8                                                  |
| Jingbo Zhang                                                                                                                                   | Taiyuan Univ. of Science and Technology | <b>439</b> VCMM-GS: Visual-centric multi-modal Gaussian SLAM for outdoor environments                                           |                                                        |
| Tianhao Zhao                                                                                                                                   | Taiyuan Univ. of Science and Technology | Jiachen Wang                                                                                                                    | HongKong Univ. of Science and Technology (Guangzhou)   |
| Linjie Wu                                                                                                                                      | Taiyuan Univ. of Science and Technology | Haoang Li                                                                                                                       | Hong Kong Univ. of Science and Technology (Guangzhou)  |
| Xin Mao                                                                                                                                        | Taiyuan Univ. of Science and Technology | 08:00-10:00                                                                                                                     | A12.9                                                  |
| Zhihua Cui                                                                                                                                     | Taiyuan Univ. of Science and Technology | <b>499</b> A variable mode yaw control method to improve the resistance to lateral disturbances during landing                  |                                                        |
| 08:00-10:00                                                                                                                                    | A12.2                                   | Kezhi Zhang                                                                                                                     | Shanghai Aircraft Design &                             |
| <b>207</b> Leader-Follower linear-quadratic stochastic graphon games                                                                           |                                         |                                                                                                                                 |                                                        |

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|                                                                                                                                          | Research Institute                                           |
| Hui Shao                                                                                                                                 | Shanghai Aircraft Design & Research Institute                |
| Xiaochun Zhang                                                                                                                           | Shanghai Aircraft Design & Research Institute                |
| Haowen Wu                                                                                                                                | Shanghai Aircraft Airworthiness Certification Center of CAAC |
| Ji Liu                                                                                                                                   | Shanghai Aircraft Design & Research Institute                |
| 08:00-10:00                                                                                                                              | A12.10                                                       |
| <b>507</b> <i>Research on a dynamic early-warning model for multi-ship encounter risk based on spatio-temporal graph neural networks</i> |                                                              |
| Jinhan Li                                                                                                                                | Harbin Engineering Univ.                                     |
| Enjiao Zhao                                                                                                                              | Harbin Engineering Univ.                                     |
| Yuxin Zhao                                                                                                                               | Harbin Engineering Univ.                                     |
| Deng Xiong                                                                                                                               | Harbin Engineering Univ.                                     |
| 08:00-10:00                                                                                                                              | A12.11                                                       |
| <b>519</b> <i>Set-membership filter based adaptive tube MPC for quadrotor trajectory tracking</i>                                        |                                                              |
| Xingxing Zhou                                                                                                                            | National Univ. of Defense Technology                         |
| Ze Sun                                                                                                                                   | 73159 Unit                                                   |
| Shuo Zhang                                                                                                                               | National Univ. of Defense Technology                         |
| Yirui Cong                                                                                                                               | National Univ. of Defense Technology                         |
| 08:00-10:00                                                                                                                              | A12.12                                                       |
| <b>572</b> <i>A method for cooperative air combat positioning based on trajectory prediction</i>                                         |                                                              |
| Yeguang Wang                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute         |
| Zhigang Wang                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute         |
| Yibo Zheng                                                                                                                               | Northwestern Polytechnical Univ.                             |
| Bin Zhao                                                                                                                                 | AVIC Shenyang Aircraft Design and Research Institute         |
| Ning Wang                                                                                                                                | AVIC Shenyang Aircraft Design and Research Institute         |
| 08:00-10:00                                                                                                                              | A12.13                                                       |
| <b>678</b> <i>Self-tuning bi-copter motion control: Real-time CG estimation and dynamic allocation for unstructured payloads</i>         |                                                              |
| Qidi Wang                                                                                                                                | Beihang Univ.                                                |
| Xinglu Xia                                                                                                                               | Beihang Univ.                                                |
| Zizhuo Cai                                                                                                                               | Beihang Univ.                                                |
| Zichun Guo                                                                                                                               | Beihang Univ.                                                |
| Yiyu Wang                                                                                                                                | Beihang Univ.                                                |
| Zhiheng Dai                                                                                                                              | Beihang Univ.                                                |
| Yingjian Xu                                                                                                                              | Beihang Univ.                                                |
| Pei Chi                                                                                                                                  | Beihang Univ.                                                |
| Yingxun Wang                                                                                                                             | Beihang Univ.                                                |
| 08:00-10:00                                                                                                                              | A12.14                                                       |
| <b>695</b> <i>Cooperative guidance law for multiple aircraft based on multi-agent consistency theory</i>                                 |                                                              |
| Yilun Huangfu                                                                                                                            | Xi'an Modern Control Technology Research Institute           |
| Haochun Miao                                                                                                                             | Xi'an Modern Control Technology research institute           |
| Jinping Li                                                                                                                               | Xi'an Modern Control Technology research institute           |
| Haipeng Deng                                                                                                                             | Xi'an Modern Control Technology                              |

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|                                                                                                                                                     | Research Institute                            |
| Guofei Li                                                                                                                                           | Northwestern Polytechnical Univ.              |
| 08:00-10:00                                                                                                                                         | A12.15                                        |
| <b>796</b> <i>Hierarchical nested game-based orbital encirclement: reachable domain and closed-loop multi-stage design approach</i>                 |                                               |
| Shuyu Yang                                                                                                                                          | Shanghai Univ.                                |
| Zhipeng Wang                                                                                                                                        | Shanghai Univ.                                |
| Jing Zhao                                                                                                                                           | Shanghai Microsatellite Engineering Center    |
| Chun Liu                                                                                                                                            | Shanghai Univ.                                |
| 08:00-10:00                                                                                                                                         | A12.16                                        |
| <b>887</b> <i>Disturbance compensated model predictive iterative learning control for flexible air-breathing hypersonic vehicles</i>                |                                               |
| Honglin Liu                                                                                                                                         | Dalian Univ. of Technology                    |
| Ming Li                                                                                                                                             | Dalian Univ. of Technology                    |
| Guan Wang                                                                                                                                           | Dalian Univ. of Technology                    |
| Kai Liu                                                                                                                                             | Dalian Univ. of Technology                    |
| 08:00-10:00                                                                                                                                         | A12.17                                        |
| <b>1030</b> <i>Event-triggered adaptive sliding-mode fault-tolerant tracking control of multi-UAVs</i>                                              |                                               |
| Wenjing Chai                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics |
| Ziquan Yu                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics |
| Youmin Zhang                                                                                                                                        | Concordia Univ.                               |
| 08:00-10:00                                                                                                                                         | A12.18                                        |
| <b>1359</b> <i>Disturbance rejection control for a Ducted-Fan UAV using priority-enhanced INDI</i>                                                  |                                               |
| Qingxi Tang                                                                                                                                         | Guangdong Univ. of Technology                 |
| Yong Xu                                                                                                                                             | Guangdong Univ. of Technology                 |
| Zihuan Cheng                                                                                                                                        | Guangdong Univ. of Technology                 |
| Chaoheng Meng                                                                                                                                       | South China Univ. of Technology               |
| 08:00-10:00                                                                                                                                         | A12.19                                        |
| <b>1477</b> <i>A collaborative optimization method for build-in and external test of complex systems based on testability Indicator constraints</i> |                                               |
| Liang Qin                                                                                                                                           | Naval Aviation Univ.                          |
| Yufeng Qin                                                                                                                                          | Naval Aviation Univ.                          |
| Xiuzhen Wu                                                                                                                                          | Naval Aviation Univ.                          |
| 08:00-10:00                                                                                                                                         | A12.20                                        |
| <b>1503</b> <i>UAVs formation control based on dynamic virtual tube generation</i>                                                                  |                                               |
| Zihui Liu                                                                                                                                           | Guangxi Univ.                                 |
| Zeyu Tang                                                                                                                                           | Guilin Univ. of Aerospace Technology          |
| Shike Long                                                                                                                                          | Guilin Univ. of Aerospace Technology          |
| Yongjun Wang                                                                                                                                        | Guilin Univ. of Aerospace Technology          |
| Shanlin Sun                                                                                                                                         | Guilin Univ. of Aerospace Technology          |
| 08:00-10:00                                                                                                                                         | A12.21                                        |
| <b>1509</b> <i>An adaptive control with powertrain time constant estimation for asymmetric-dynamics vehicle platoons</i>                            |                                               |
| Ye Zhang                                                                                                                                            | Southeast Univ.                               |
| Yu Feng                                                                                                                                             | Southeast Univ.                               |
| Haibin He                                                                                                                                           | Southeast Univ.                               |
| Wenying Xu                                                                                                                                          | Southeast Univ.                               |
| 08:00-10:00                                                                                                                                         | A12.22                                        |
| <b>1558</b> <i>A method of manned/unmanned intelligent cooperative air combat based on multi-agent situation awareness</i>                          |                                               |

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|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Shangrongxi Sun                                                                                                                   | Fudan Univ.                                            | communication satellites: A review                                                                       |                                                        |
| Ye Wang                                                                                                                           | Fudan Univ.                                            | Yifan Wu                                                                                                 | Beijing Ingstitute of Control Engineering              |
| Shuo Cui                                                                                                                          | Fudan Univ.                                            | Jiang Liu                                                                                                | Beijing Ingstitute of Control Engineering              |
| Yiming Wang                                                                                                                       | Fudan Univ.                                            | Fengjun Guo                                                                                              | Beijing Ingstitute of Control Engineering              |
| Jianliang Ai                                                                                                                      | Fudan Univ.                                            | 08:00-10:00                                                                                              | A12.31                                                 |
| 08:00-10:00                                                                                                                       | A12.23                                                 | <b>1686</b> Risk-aware UAV path planning with GMM-Based uncertainty modeling and trajectory optimization |                                                        |
| <b>204</b> Evolution of machine learning-driven intelligent positioning algorithms                                                |                                                        | Rui Du                                                                                                   | Southeast Univ.                                        |
| Yifan Zhao                                                                                                                        | Hunan Institute of Engineering                         | Kelin Lu                                                                                                 | Southeast Univ.                                        |
| Ziwei Huang                                                                                                                       | Hunan Institute of Engineering                         | 08:00-10:00                                                                                              | A12.32                                                 |
| Xiangling Luo                                                                                                                     | Hunan Institute of Engineering                         | <b>1749</b> On-orbit security protection technology                                                      |                                                        |
| Jingmei Wang                                                                                                                      | Hunan Institute of Engineering                         | Geng Jie                                                                                                 | Beijing Institute of Control Engineering               |
| 08:00-10:00                                                                                                                       | A12.24                                                 | 08:00-10:00                                                                                              | A12.33                                                 |
| <b>294</b> 线加速度计试验国家军用标准修订建议浅析                                                                                                    |                                                        | <b>312</b> 双轴离心机在惯性仪表复合矢量测试中的应用分析                                                                        |                                                        |
| Wei Guan                                                                                                                          | State-owned Changhong Machinery Factory                | Wei Guan                                                                                                 | State-owned Changhong Machinery Factory                |
| Sulong Wu                                                                                                                         | State-owned Changhong Machinery Factory                | Yuxuan Zou                                                                                               | State-owned Changhong Machinery Factory                |
| Xuefeng Zeng                                                                                                                      | State-owned Changhong Machinery Factory                | Quangui Zhou                                                                                             | State-owned Changhong Machinery Factory                |
| Yajun He                                                                                                                          | State-owned Changhong Machinery Factory                | Yuqiao Zhou                                                                                              | State-owned Changhong Machinery Factory                |
| Yuxuan Zou                                                                                                                        | State-owned Changhong Machinery Factory                | Zhikai Yang                                                                                              | State-owned Changhong Machinery Factory                |
| 08:00-10:00                                                                                                                       | A12.25                                                 | 08:00-10:00                                                                                              | A12.34                                                 |
| <b>303</b> Research on independent innovation pathways for TAWS from the perspective of patent analysis                           |                                                        | <b>486</b> A review of typical application scenarios for active sticks                                   |                                                        |
| Fei Xue                                                                                                                           | COMAC Shanghai Aircraft Design and Research Institute  | Heming Dang                                                                                              | Chinese Flight Test Establishment                      |
| 08:00-10:00                                                                                                                       | A12.26                                                 | 08:00-10:00                                                                                              | A12.35                                                 |
| <b>407</b> On the application of deep reinforcement learning in UAV swarm control                                                 |                                                        | <b>5</b> Nonlinear homotopy-penalty interior-point method for six-DoF powered landing guidance           |                                                        |
| Jianping Yu                                                                                                                       | AVIC First Aircraft Design and Research Institute      | Kai Chen                                                                                                 | Zhejiang Univ.                                         |
| Yuxiang Tang                                                                                                                      | AVIC First Aircraft Design and Research Institute      | Lorenz T. Biegler                                                                                        | Carnegie Mellon Univ.                                  |
| Kexin Li                                                                                                                          | AVIC First Aircraft Design and Research Institute      | Zhijiang Shao                                                                                            | Zhejiang Univ.                                         |
| 08:00-10:00                                                                                                                       | A12.27                                                 | 08:00-10:00                                                                                              | A12.36                                                 |
| <b>460</b> Control of electric vertical take-off and landing aircraft: developments and prospects                                 |                                                        | <b>10</b> Research on composite control strategies for electro-hydrostatic actuators                     |                                                        |
| Xv Wang                                                                                                                           | Xiamen Univ.                                           | Lei Fan                                                                                                  | AVIC First Aircraft Design and Research Institute      |
| Shaoping Shen                                                                                                                     | Xiamen Univ.                                           | Yong Yang                                                                                                | AVIC First Aircraft Design and Research Institute      |
| Zhibin Li                                                                                                                         | Shandong Univ. of Science and Technology               | Shuai Cao                                                                                                | AVIC First Aircraft Design and Research Institute      |
| 08:00-10:00                                                                                                                       | A12.28                                                 | Yitao Huang                                                                                              | AVIC First Aircraft Design and Research Institute      |
| <b>767</b> A review on autonomous navigation and planetary physical field parameter estimation for Ice giant exploration missions |                                                        | 08:00-10:00                                                                                              | A12.37                                                 |
| Runyi Liu                                                                                                                         | Univ. of Chinese Academy of Sciences                   | <b>83</b> 多余度液压舵机系统中电流偏差抑制的参数协同控制策略                                                                      |                                                        |
| Peng Han                                                                                                                          | Univ. of Chinese Academy of Sciences                   | ErFeng Su                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute |
| Dong Gao                                                                                                                          | Univ. of Chinese Academy of Sciences                   | ShaoYang Dong                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:00-10:00                                                                                                                       | A12.29                                                 | Longhui Yao                                                                                              | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>1517</b> A review of critical technologies in electric propulsion motor control                                                |                                                        | 08:00-10:00                                                                                              | A12.38                                                 |
| Weiping Yang                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute | <b>153</b> Design of precise guidance law based on adaptive sliding mode and latitude and longitude      |                                                        |
| Xiaopeng Zhao                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute | Xueqing Zhang                                                                                            | Shanghai Spaceflight Precision Machinery Institute     |
| Zhangjun Sun                                                                                                                      | AVIC Xi'an Flight Automatic Control Institute          | Changxing Shao                                                                                           | Shanghai Aerospace Precision Machinery Institute       |
| 08:00-10:00                                                                                                                       | A12.30                                                 | Weixiao Wu                                                                                               | Shanghai Spaceflight Precision Machinery Institute     |
| <b>1643</b> Micro-vibration noise control technologies for laser                                                                  |                                                        |                                                                                                          |                                                        |

|                                                                                                                                          |                                                     |                                                                                                                                          |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Mohan Zhao                                                                                                                               | Shanghai Spaceflight Precision Machinery Institute  | Yadong Liu                                                                                                                               | Hebei Univ. of Science and Technology                     |
| MengCheng Zhu                                                                                                                            | Shanghai Aerospace Precision Machinery Institute    | Canyang Zhao                                                                                                                             | Hebei Univ. of Science and Technology                     |
| 08:00-10:00                                                                                                                              | A12.39                                              | Ning Zhou                                                                                                                                | Hebei Univ. of Science and Technology                     |
| <b>182</b> <i>Predefined-time sliding mode control for aircraft attitude with actuator dynamics</i>                                      |                                                     | Bing Cui                                                                                                                                 | Beijing Institute of Technology                           |
| Yikun Wei                                                                                                                                | Xidian Univ.                                        | Guang Yang                                                                                                                               | Hebei Univ. of Science and Technology                     |
| Suiping Zhou                                                                                                                             | Xidian Univ.                                        | Tiejun Li                                                                                                                                | Hebei Univ. of Science and Technology                     |
| Jiahao Gan                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute | 08:00-10:00                                                                                                                              | A12.48                                                    |
| 08:00-10:00                                                                                                                              | A12.40                                              | <b>1023</b> <i>Data-driven stabilization of continuous-time linear systems via the matrix S-lemma</i>                                    |                                                           |
| <b>229</b> 含输入时延的不确定非线性系统有限时间自适应智能控制                                                                                                     |                                                     | Yuhao Chen                                                                                                                               | Beihang Univ.                                             |
| Gang Xu                                                                                                                                  | Weifang Vocational College                          | Jiang Zhao                                                                                                                               | Beihang Univ.                                             |
| Honghong Wang                                                                                                                            | Qingdao Univ.                                       | Yingxun Wang                                                                                                                             | Beihang Univ.                                             |
| Kai Wang                                                                                                                                 | Qingdao Univ.                                       | Pei Chi                                                                                                                                  | Beihang Univ.                                             |
| 08:00-10:00                                                                                                                              | A12.41                                              | 08:00-10:00                                                                                                                              | A12.49                                                    |
| <b>247</b> <i>Research on stepper motor selection and adaptive PID control for the CSNS-II stripper foil system</i>                      |                                                     | <b>1079</b> 基于预定义时间滑模的高超声速飞行器鲁棒姿态控制                                                                                                      |                                                           |
| YiCong Chen                                                                                                                              | Dongguan Univ. of Technology                        | Jiawei Wen                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics             |
| Xuan Wu                                                                                                                                  | Spallation Neutron Source Science Center            | Ben Yang                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics             |
| Yi Qin                                                                                                                                   | Dongguan Univ. of Technology                        | Boyi Chen                                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics             |
| 08:00-10:00                                                                                                                              | A12.42                                              | Yanbin Liu                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics             |
| <b>269</b> <i>Nonlinear data driven control using optimal weight strategy</i>                                                            |                                                     | Jinbao Chen                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics             |
| Tingting Bai                                                                                                                             | Army engineering Univ. of PLA                       | 08:00-10:00                                                                                                                              | A12.50                                                    |
| Jianhong Wang                                                                                                                            | Jiangxi Univ. of Science and Technology             | <b>1101</b> <i>Integrated target-vision-servo modeling and disturbance observer-based composite control for optoelectronic platforms</i> |                                                           |
| 08:00-10:00                                                                                                                              | A12.43                                              | Huyi Peng                                                                                                                                | Beihang Univ.                                             |
| <b>603</b> <i>Sliding mode control with actuator lag and dead-zone compensation for nonlinear flight control systems</i>                 |                                                     | Baopeng Zhu                                                                                                                              | Southeast Univ.                                           |
| JiaHui Zhang                                                                                                                             | Beijing Institute of Technology                     | Yukai Zhu                                                                                                                                | Beihang Univ.                                             |
| Qiuqiu Wen                                                                                                                               | Beijing Institute of Technology                     | Weipeng Li                                                                                                                               | Beihang Univ.                                             |
| Zhen Chen                                                                                                                                | Beijing Institute of Technology                     | Lu Wang                                                                                                                                  | Changchun Institute of Optics, Fine Mechanics and Physics |
| Yuxiang Chang                                                                                                                            | Beijing Institute of Technology                     | 08:00-10:00                                                                                                                              | A12.51                                                    |
| Junjie Ai                                                                                                                                | Beijing Institute of Technology                     | <b>1112</b> <i>Mechanism-data-driven whole-body cooperative optimization control for mobile manipulators</i>                             |                                                           |
| 08:00-10:00                                                                                                                              | A12.44                                              | Keming Chen                                                                                                                              | Beijing Univ. of Technology                               |
| <b>640</b> <i>PPO-ESO parameter tuning method for tracking control of hypersonic flight vehicles</i>                                     |                                                     | Yanting Huang                                                                                                                            | Beijing Univ. of Technology                               |
| Xu Wang                                                                                                                                  | Rocket Army Engineering Univ.                       | Honggui Han                                                                                                                              | Beijing Univ. of Technology                               |
| GuangBin Cai                                                                                                                             | Rocket Army Engineering Univ.                       | Kang Gao                                                                                                                                 | China Electronics Technology Group Corporation            |
| Yonghua Fan                                                                                                                              | Northwestern Polytechnical Univ.                    | 08:00-10:00                                                                                                                              | A12.52                                                    |
| Xuen Fan                                                                                                                                 | Rocket Army Engineering Univ.                       | <b>1253</b> <i>Learning-based optimal guidance with predictive uncertainty estimation</i>                                                |                                                           |
| 08:00-10:00                                                                                                                              | A12.45                                              | Haoran Ma                                                                                                                                | Zhejiang Univ.                                            |
| <b>718</b> <i>Data-driven actor-critic-identifier control for non-affine nonlinear systems under asymmetric time-varying constraints</i> |                                                     | Zheng Chen                                                                                                                               | Zhejiang Univ.                                            |
| Sibo Huang                                                                                                                               | Beijing Univ. of Technology                         | 08:00-10:00                                                                                                                              | A12.53                                                    |
| Yanting Huang                                                                                                                            | Beijing Univ. of Technology                         | <b>1321</b> <i>Backstepping super-twisting sliding mode control based on neural network disturbance observer</i>                         |                                                           |
| Tian Chen                                                                                                                                | Beihang Univ.                                       | Yang Zhao                                                                                                                                | Beijing Aerospace Technology Institute                    |
| 08:00-10:00                                                                                                                              | A12.46                                              | Xu Zha                                                                                                                                   | Beijing Aerospace Technology Institute                    |
| <b>722</b> <i>Adaptive prescribed performance tracking control of reusable launch vehicle with input delay</i>                           |                                                     | Zhiyi Lu                                                                                                                                 | Beijing Aerospace Technology Institute                    |
| Xiaowei Yu                                                                                                                               | Beijing Univ. of Technology                         | Junyong Sun                                                                                                                              | Beijing Aerospace Technology Institute                    |
| Xiaoli Li                                                                                                                                | Beijing Univ. of Technology                         | 08:00-10:00                                                                                                                              | A12.54                                                    |
| 08:00-10:00                                                                                                                              | A12.47                                              | <b>1377</b> <i>GPR-enhanced MPC for multirotor UAV control under wind disturbance</i>                                                    |                                                           |
| <b>822</b> <i>Adaptive fault-tolerant control design for MIMO nonlinear systems under mixed faults and output constraints</i>            |                                                     | Ao Li                                                                                                                                    | Beihang Univ.                                             |
|                                                                                                                                          |                                                     | Xin Dong                                                                                                                                 | Beihang Univ.                                             |
|                                                                                                                                          |                                                     | Dawei Bie                                                                                                                                | Beihang Univ.                                             |
|                                                                                                                                          |                                                     | Zhan Tu                                                                                                                                  | Beihang Univ.                                             |
|                                                                                                                                          |                                                     | DaoChun Li                                                                                                                               | Beihang Univ.                                             |

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| 08:00-10:00                                                                                                                                      | A12.55                                      | Wenhao Tian                                                                                                                                     | Army Engineering Univ.                               |
| <b>1443</b> <i>A forward-backward second-order method for finite-horizon nonlinear control with symmetrically coupled inputs</i>                 |                                             | 08:00-10:00                                                                                                                                     | A12.61                                               |
| Xiaoqian Li                                                                                                                                      | Taishan Univ.                               | <b>1657</b> <i>Prescribed-performance fault tolerant control for non-cooperative spacecraft rendezvous based on fully actuated approach</i>     |                                                      |
| Zhaozhen Zhan                                                                                                                                    | Power Cable Division                        | Ruining Yuan                                                                                                                                    | Harbin Institute of Technology                       |
| Shufen Zhao                                                                                                                                      | Taishan Univ.                               | Zunhao Yao                                                                                                                                      | Harbin Institute of Technology                       |
| Zonglei Jing                                                                                                                                     | Beihang Univ.                               | Yuchen Ma                                                                                                                                       | Harbin Institute of Technology                       |
| Peijun Ju                                                                                                                                        | Taishan Univ.                               | Ming Liu                                                                                                                                        | Harbin Institute of Technology                       |
| Shen Zhang                                                                                                                                       | Taishan Univ.                               | 08:00-10:00                                                                                                                                     | A12.62                                               |
| 08:00-10:00                                                                                                                                      | A12.56                                      | <b>1730</b> <i>Prescribed-time attitude tracking control for quadrotor UAVs under measurement noises</i>                                        |                                                      |
| <b>1489</b> <i>Research on attitude control of quadrotor unmanned aerial vehicle combining sliding mode control with flightgear Simulation</i>   |                                             | Shuai Liang                                                                                                                                     | Xi'an Univ. of Technology                            |
| Jianqi Wang                                                                                                                                      | Guilin Univ. of Aerospace Technology        | Kangxuan Lv                                                                                                                                     | Xi'an Univ. of Technology                            |
| Jian chen                                                                                                                                        | Guilin Univ. of Aerospace Technology Guilin | Yankai Li                                                                                                                                       | Xi'an Univ. of Technology                            |
| Shengtao Long                                                                                                                                    | Guilin Univ. of Electronic Technology       | 08:00-10:00                                                                                                                                     | A12.63                                               |
| Su Wang                                                                                                                                          | City Univ. of Macau                         | <b>1737</b> <i>Investigation on discrete-time human-in-the-loop adaptive control approach for carrier-based aircraft</i>                        |                                                      |
| Dongmei Wang                                                                                                                                     | Guilin Univ. Of Aerospace Technology        | Xuxiao Chen                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics        |
| Yang Li                                                                                                                                          | Guilin Univ. of Aerospace Technology        | Xiaoyun Sun                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics        |
| 08:00-10:00                                                                                                                                      | A12.57                                      | Xinhua Wang                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics        |
| <b>1508</b> <i>Iterative learning adaptive control barrier functions for consensus in multi-agent systems with unknown dynamics</i>              |                                             | 08:00-10:00                                                                                                                                     | A12.64                                               |
| Lili Chen                                                                                                                                        | Liaoning Univ. of Technology                | <b>1742</b> <i>Robust flight control and uncertainty robustness assessment for fixed-wing aircraft</i>                                          |                                                      |
| Qiang Zeng                                                                                                                                       | Liaoning Univ. of Technology                | Qingyuan Ma                                                                                                                                     | AVIC Shenyang Aircraft Design and Research Institute |
| Yan-Jun Liu                                                                                                                                      | Liaoning Univ. of Technology                | Chuang He                                                                                                                                       | AVIC Shenyang Aircraft Design and Research Institute |
| 08:00-10:00                                                                                                                                      | A12.58                                      | Dongdong Guan                                                                                                                                   | Northeastern Univ.                                   |
| <b>1529</b> <i>A robust adaptive attitude control for hypersonic vehicles based on wavelet neural network disturbance observer</i>               |                                             | Xiaoyang He                                                                                                                                     | AVIC Shenyang Aircraft Design and Research Institute |
| Xiaobin Hao                                                                                                                                      | Shanghai Dianji Univ.                       | 08:00-10:00                                                                                                                                     | A12.65                                               |
| Liang Zhu                                                                                                                                        | Shanghai Dianji Univ.                       | <b>210</b> <i>Research on robust aerodynamic parameter identification of aircraft based on AT-LSTM</i>                                          |                                                      |
| Xichao Wang                                                                                                                                      | Shanghai Dianji Univ.                       | Yuewen Wang                                                                                                                                     | Northwestern Polytechnical Univ.                     |
| Zheng Zhang                                                                                                                                      | Shanghai Dianji Univ.                       | Kecheng Li                                                                                                                                      | Northwestern Polytechnical Univ.                     |
| Lei Yang                                                                                                                                         | Shanghai Dianji Univ.                       | Hongwu Xu                                                                                                                                       | Northwestern Polytechnical Univ.                     |
| 08:00-10:00                                                                                                                                      | A12.59                                      | Xiaoxiang Hu                                                                                                                                    | Northwestern Polytechnical Univ.                     |
| <b>1563</b> <i>Event-triggered safe control of input-constrained unknown nonlinear systems</i>                                                   |                                             | 08:00-10:00                                                                                                                                     | A12.66                                               |
| Pengcheng Zhang                                                                                                                                  | Hebei Univ. of Science and Technology       | <b>1046</b> <i>Byzantine-resilient remote set-membership filtering for cyber-physical systems: an amplify-and-forward relay-aided mechanism</i> |                                                      |
| Haomai Cui                                                                                                                                       | Hebei Univ. of Science and Technology       | Jinliao Yan                                                                                                                                     | Hangzhou Dianzi Univ.                                |
| Dong Xue                                                                                                                                         | East China Univ. of Science and Technology  | Xueyang Meng                                                                                                                                    | Hangzhou Dianzi Univ.                                |
| Lele Xi                                                                                                                                          | Hebei Univ. of Science and Technology       | Jiaqing Xu                                                                                                                                      | Hangzhou Dianzi Univ.                                |
| Ning Zhou                                                                                                                                        | Hebei Univ. of Science and Technology       | Xiongding ·Liu                                                                                                                                  | Hangzhou Dianzi Univ.                                |
| 08:00-10:00                                                                                                                                      | A12.60                                      | 08:00-10:00                                                                                                                                     | A12.67                                               |
| <b>1581</b> <i>Research on guidance law with impact angle constraints for maneuvering targets based on equivalent-input-disturbance approach</i> |                                             | <b>1109</b> <i>Robust in-motion coarse alignment for SINS aided by GNSS</i>                                                                     |                                                      |
| Yuanhang Chai                                                                                                                                    | Army Engineering Univ.                      | Yong Liu                                                                                                                                        | Harbin Institute of Technology                       |
| Xiwei Guo                                                                                                                                        | Army Engineering Univ.                      | Fei Yu                                                                                                                                          | Harbin Institute of Technology                       |
| Jiaheng Wei                                                                                                                                      | Army Engineering Univ.                      | Ya Zhang                                                                                                                                        | Harbin Institute of Technology                       |
|                                                                                                                                                  |                                             | Zhijiang Yuan                                                                                                                                   | Harbin Institute of Technology                       |
|                                                                                                                                                  |                                             | 08:00-10:00                                                                                                                                     | A12.68                                               |

**1119** 恒定通风输入下飞机货舱烟雾流场的 *DMD* 与 *DMDc* 建模方法对比研究

|                |                               |
|----------------|-------------------------------|
| Jianzhong Yang | Civil Aviation Univ. of China |
| Yujia Huang    | Civil Aviation Univ. of China |
| Xiyuan Chen    | Civil Aviation Univ. of China |

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| 08:00-10:00 | A12.69 |
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**1480** *A sliding mode state observer based on adaptive prescribed performance constraints*

|              |                                 |
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| Yangxin Liu  | Beijing Institute of Technology |
| Fangzhou Jia | Beijing Institute of Technology |
| Qunli Xia    | Beijing Institute of Technology |

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| 08:00-10:00 | A12.70 |
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**1676** *Design of anti-disturbance control for high-precision turntable with flexible transmission*

|              |                                                       |
|--------------|-------------------------------------------------------|
| Yigong Zhang | Graduate School of Chinese Aeronautical Establishment |
|--------------|-------------------------------------------------------|

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| 08:00-10:00 | A12.71 |
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**324** *Multi-source evidential deep learning for imbalanced open-set fault diagnosis of aero-engines*

|              |                                               |
|--------------|-----------------------------------------------|
| Peng Han     | Nanjing Univ. of Aeronautics and Astronautics |
| Zhiqiu Huang | Nanjing Univ. of Aeronautics and Astronautics |

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| 08:00-10:00 | A12.72 |
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**652** *WK-DMN: A physics-guided dynamic multi-scale network in the autocorrelation lag domain for robust condition monitoring of rolling element bearings*

|            |                           |
|------------|---------------------------|
| Wei Quan   | Xi'an Univ. of Technology |
| Yongle Jia | Xi'an Univ. of Technology |

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| 08:00-10:00 | A12.73 |
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**779** *Construction of knowledge graph for aircraft fault diagnosis*

|             |                          |
|-------------|--------------------------|
| Xiuxia Yang | Naval Aviation Univ.     |
| Kanxin Feng | Harbin Engineering Univ. |

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| 08:00-10:00 | A12.74 |
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**816** 基于混合专家信号—语义桥接的伺服机构故障诊断方法

|               |                                                      |
|---------------|------------------------------------------------------|
| QiYi Zhang    | Nanjing Univ. of Aeronautics and Astronautics        |
| YueHua Cheng  | Nanjing Univ. of Aeronautics and Astronautics        |
| WeiGang Hu    | Beijing Control and Electronics Technology Institute |
| YuanHang Deng | Nanjing Univ. of Aeronautics and Astronautics        |
| WeiDong Shi   | Nanjing Univ. of Aeronautics and Astronautics        |

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| 08:00-10:00 | A12.75 |
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**960** *Design of power-on BIT for triple-lane flight control computer*

|                |                                                       |
|----------------|-------------------------------------------------------|
| Jianhui Han    | COMAC Shanghai Aircraft Design and Research Institute |
| Mingfeng Zhang | COMAC Shanghai Aircraft Design and Research Institute |
| Zhishuai Tang  | COMAC Shanghai Aircraft Design and Research Institute |
| Xinghua Liu    | COMAC Shanghai Aircraft Design and Research Institute |
| Hairong Shen   | COMAC Shanghai Aircraft Design and Research Institute |

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| 08:00-10:00 | A12.76 |
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**1005** *Simulation study on fault-tolerant mechanism for TTE and TSN converged networks based on dynamic adaptive switching*

|                |                                                      |
|----------------|------------------------------------------------------|
| Ruiyang Ban    | AVIC Shenyang Aircraft Design and Research Institute |
| Dong Zhang     | AVIC Shenyang Aircraft Design and Research Institute |
| Weize Shang    | AVIC Shenyang Aircraft Design and Research Institute |
| Huasong Li     | AVIC Shenyang Aircraft Design and Research Institute |
| Tianzhen Liang | AVIC Shenyang Aircraft Design and Research Institute |

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| 08:00-10:00 | A12.77 |
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**1191** *A feature-enhanced intelligent fault diagnosis method for unmanned helicopters*

|              |                                                     |
|--------------|-----------------------------------------------------|
| Darui Qi     | Anhui Polytechnic Univ.                             |
| Li Guo       | Anhui Polytechnic Univ.                             |
| Yongjian Liu | Huaxia Yuntian Aircraft Engine Maintenance Co., Ltd |
| Runze Li     | Anhui Polytechnic Univ.                             |
| Yansong Wang | Anhui Polytechnic Univ.                             |

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| 08:00-10:00 | A12.78 |
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**1511** *Multivariate time series imputation based on multi-scale consistent diffusion model for electric submersible pump*

|                 |                                    |
|-----------------|------------------------------------|
| Liangcheng Wang | China Univ. of Petroleum (Beijing) |
| Kang Li         | China Univ. of Petroleum (Beijing) |
| Xiaoyong Gao    | China Univ. of Petroleum (Beijing) |
| Chaodong Tan    | China Univ. of Petroleum (Beijing) |

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| 08:00-10:00 | A12.79 |
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**1630** *Unsupervised anomaly detection for flotation froth images based on deep feature representation*

|               |                                             |
|---------------|---------------------------------------------|
| Xuecong Fan   | North China Univ. of Science and Technology |
| Weiming Tian  | North China Univ. of Science and Technology |
| Shuai He      | North China Univ. of Science and Technology |
| Shihong Han   | North China Univ. of Science and Technology |
| Yuzhuo Yao    | North China Univ. of Science and Technology |
| Zhiqiang Wang | North China Univ. of Science and Technology |

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| 08:00-10:00 | A12.80 |
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**1739** *Incremental learning-based fault-tolerant adaptive control for unmanned aerial vehicle*

|             |                                               |
|-------------|-----------------------------------------------|
| Yupei Zhang | Nanjing Univ. of Aeronautics and Astronautics |
| Xiaoyun Sun | Nanjing Univ. of Aeronautics and Astronautics |
| Xinhua Wang | Nanjing Univ. of Aeronautics and Astronautics |

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| 08:00-10:00 | A12.81 |
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**1745** *Research on quality improvement of limit cycle for aviation two-stage DDV actuator based on DMAIC*

|            |                             |
|------------|-----------------------------|
| Lizhi Wang | AVIC Xi'an Flight Automatic |
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|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Longfei Liu                                                                                                                       | Control Research Institute<br>AVIC Xi'an Flight Automatic<br>Control Research Institute | Jie Wen                                                                                                                                | Taiyuan Univ. of Science and<br>Technology                           |
| Weitong Zheng                                                                                                                     | AVIC Xi'an Flight Automatic<br>Control Research Institute                               | 08:00-10:00                                                                                                                            | A12.89                                                               |
| Ruofan Li                                                                                                                         | AVIC Xi'an Flight Automatic<br>Control Research Institute                               | <b>340</b> <i>Anchor-gated neural adaptive kernel density estimation</i>                                                               |                                                                      |
| Yaozhong Xu                                                                                                                       | AVIC Xi'an Flight Automatic<br>Control Research Institute                               | Mingfei Lu                                                                                                                             | Xi'an Univ. of Architecture and<br>Technology                        |
| Run Pang                                                                                                                          | AVIC Xi'an Flight Automatic<br>Control Research Institute                               | Junqian Ma                                                                                                                             | Xi'an Univ. of Architecture and<br>Technology                        |
| 08:00-10:00                                                                                                                       | A12.82                                                                                  | Jun Lei                                                                                                                                | Xi'an Univ. of Architecture and<br>Technology                        |
| <b>279</b> <i>Parameter optimization analysis of airborne gas-liquid accumulator</i>                                              |                                                                                         | Weiqi Zhang                                                                                                                            | Xi'an Univ. of Architecture and<br>Technology                        |
| Hongjun Pang                                                                                                                      | Qingan Group, Co., Ltd.                                                                 | Min Zhou                                                                                                                               | Northwestern Polytechnical Univ.                                     |
| Weijuan Zheng                                                                                                                     | Qingan Group, Co., Ltd.                                                                 | 08:00-10:00                                                                                                                            | A12.90                                                               |
| 08:00-10:00                                                                                                                       | A12.83                                                                                  | <b>458</b> <i>Coarse-to-fine pose estimation of noncooperative spacecraft based on iNeRF</i>                                           |                                                                      |
| <b>464</b> <i>A multi-faceted approach enhanced DBO for complex environment UAV navigation</i>                                    |                                                                                         | Zilong Chen                                                                                                                            | Beihang Univ.                                                        |
| Bei Zhang                                                                                                                         | Changji Univ.                                                                           | Haichao Gui                                                                                                                            | Beihang Univ.                                                        |
| Qiaoyu Zhou                                                                                                                       | Changji Univ.                                                                           | Rui Zhong                                                                                                                              | Beihang Univ.                                                        |
| 08:00-10:00                                                                                                                       | A12.84                                                                                  | 08:00-10:00                                                                                                                            | A12.91                                                               |
| <b>1216</b> 助推滑翔飞行器内外弹道联合优化算法研究                                                                                                   |                                                                                         | <b>557</b> <i>FDR U-Net: a frequency-directional refinement network for crack segmentation</i>                                         |                                                                      |
| Hongbo Ding                                                                                                                       | Central South Univ.                                                                     | Zhaoyong Xiao                                                                                                                          | Linyi Univ.                                                          |
| Caisheng Wei                                                                                                                      | Central South Univ.                                                                     | Zhen Wang                                                                                                                              | Linyi Univ.                                                          |
| 08:00-10:00                                                                                                                       | A12.85                                                                                  | Wenzhe Li                                                                                                                              | Linyi Univ.                                                          |
| <b>1615</b> <i>PID control method for aircraft pitch channel based on improved SOA</i>                                            |                                                                                         | Jingfeng Han                                                                                                                           | Linyi Univ.                                                          |
| Heming Dang                                                                                                                       | Chinese Flight Test Establishment                                                       | Zheng Wang                                                                                                                             | Linyi Univ.                                                          |
| 08:00-10:00                                                                                                                       | A12.86                                                                                  | Feng Li                                                                                                                                | Linyi Univ.                                                          |
| <b>118</b> <i>A decomposed multi-objective reinforcement learning algorithm integrating three-way decision theory</i>             |                                                                                         | 08:00-10:00                                                                                                                            | A12.92                                                               |
| Zhiyu Zhang                                                                                                                       | Taiyuan Univ. of Science and<br>Technology                                              | <b>606</b> 基于位平面置乱与多维混沌系统的图像加密算法                                                                                                       |                                                                      |
| Zhixia Zhang                                                                                                                      | Taiyuan Univ. of Science and<br>Technology                                              | Jia Wang                                                                                                                               | College of Humanities & Information<br>Changchun Univ. of Technology |
| Jie Wen                                                                                                                           | Taiyuan Univ. of Science and<br>Technology                                              | Qiong Wu                                                                                                                               | College of Humanities & Information<br>Changchun Univ. of Technology |
| Qian Guo                                                                                                                          | Taiyuan Univ. of Science and<br>Technology                                              | Bing Shi                                                                                                                               | College of Humanities & Information<br>Changchun Univ. of Technology |
| Erliang Yao                                                                                                                       | Taiyuan Univ. of Science and<br>Technology                                              | Ye Song                                                                                                                                | College of Humanities & Information<br>Changchun Univ. of Technology |
| Zhihua Cui                                                                                                                        | Taiyuan Univ. of Science and<br>Technology                                              | 08:00-10:00                                                                                                                            | A12.93                                                               |
| 08:00-10:00                                                                                                                       | A12.87                                                                                  | <b>720</b> <i>Reinforcement learning-based terminal guidance for counter-unmanned aircraft systems under field-of-view constraints</i> |                                                                      |
| <b>120</b> <i>A target recognition method for CT images in lung disease diagnosis based on deep convolutional neural networks</i> |                                                                                         | Yawen Li                                                                                                                               | Xihua Univ.                                                          |
| Ye Song                                                                                                                           | Changchun Univ. of Technology                                                           | Wenbing Chen                                                                                                                           | AVIC Chengdu Aircraft Design and<br>Research Institute.              |
| 08:00-10:00                                                                                                                       | A12.88                                                                                  | Shilong Yu                                                                                                                             | AVIC Chengdu Aircraft Design and<br>Research Institute               |
| <b>199</b> <i>Workshop scheduling and energy efficiency improvement based on interval multi-task optimization</i>                 |                                                                                         | Yongliang Wu                                                                                                                           | Xihua Univ.                                                          |
| JunMin Yan                                                                                                                        | Taiyuan Univ. of Science and<br>Technology                                              | Qifeng Jiang                                                                                                                           | Xihua Univ.                                                          |
| Linjie Wu                                                                                                                         | Taiyuan Univ. of Science and<br>Technology                                              | 08:00-10:00                                                                                                                            | A12.94                                                               |
| XingJuan Cai                                                                                                                      | Taiyuan Univ. of Science and<br>Technology                                              | <b>725</b> <i>Attention-augmented hierarchical reinforcement learning for autonomous decision and control</i>                          |                                                                      |
|                                                                                                                                   |                                                                                         | Jiaxu Zhang                                                                                                                            | China Academy of Electronics and<br>Information Technology           |
|                                                                                                                                   |                                                                                         | 08:00-10:00                                                                                                                            | A12.95                                                               |
|                                                                                                                                   |                                                                                         | <b>820</b> <i>Multi-objective optimization of SLWR buoyancy module parameters via MLP surrogate modeling and NSGA-II</i>               |                                                                      |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Zeyang Song                                                                                                                                           | China Univ. of Petroleum (Beijing) |                                                                                                                        | Technology Company Limited     |
| Yu Song                                                                                                                                               | China Univ. of Petroleum Beijing   | Zhiwu Li                                                                                                               | Guangdong Yuedianke Testing    |
| 08:00-10:00                                                                                                                                           | A12.96                             |                                                                                                                        | Technology Company Limited     |
| <b>1075</b> <i>APF-FACO: a fuzzy ant colony algorithm with artificial potential field for multi-UAV 3-D path planning over communication networks</i> |                                    |                                                                                                                        |                                |
| Siya Liu                                                                                                                                              | Beijing Jiao Tong Univ.            | Dehua You                                                                                                              | Guangdong Yuedianke Testing    |
| Yibing Cui                                                                                                                                            | Beijing Jiao Tong Univ.            |                                                                                                                        | Technology Company Limited     |
| Yongguang Yu                                                                                                                                          | Beijing Jiao Tong Univ.            | Yang Jiao                                                                                                              | Guangdong Yuedianke Testing    |
| Wei Hu                                                                                                                                                | Beijing Jiao Tong Univ.            |                                                                                                                        | Technology Company Limited     |
| 08:00-10:00                                                                                                                                           | A12.97                             | 08:00-10:00                                                                                                            | A12.101                        |
| <b>1157</b> <i>Multi-objective fuel dispatching optimization of thermal power units based on PHMMO algorithm with start-stop constraints</i>          |                                    |                                                                                                                        |                                |
| Kaihui Zhu                                                                                                                                            | Beihang Univ.                      | Jiaxiang Sun                                                                                                           | Guangdong Yuedianke Testing    |
| Mei Yuan                                                                                                                                              | Beihang Univ.                      |                                                                                                                        | Technology Company Limited     |
| Lei Zhu                                                                                                                                               | Beijing Normal Univ.               | Xin Li                                                                                                                 | Guangdong Yuedianke Testing    |
| 08:00-10:00                                                                                                                                           | A12.98                             |                                                                                                                        | Technology Company Limited     |
| <b>1194</b> <i>Online aerodynamic identification for morphing aircraft via physics-aware reinforcement learning</i>                                   |                                    |                                                                                                                        |                                |
| Bo Ding                                                                                                                                               | Beihang Univ.                      | Wei Guo                                                                                                                | Shantou Power Supply Bureau of |
| Chenzhi Li                                                                                                                                            | Beihang Univ.                      |                                                                                                                        | Guangdong Power Grid Co., Ltd. |
| Mingxuan He                                                                                                                                           | Beihang Univ.                      | Hongshi Chen                                                                                                           | Shantou Power Supply Bureau of |
| Song Jia                                                                                                                                              | Beihang Univ.                      |                                                                                                                        | Guangdong Power Grid Co., Ltd. |
| 08:00-10:00                                                                                                                                           | A12.99                             | Yifei Dong                                                                                                             | Guangdong Yuedianke Testing    |
| <b>1247</b> <i>End-to-end UAV time-sensitive task execution based on differentiable quadratic programming</i>                                         |                                    |                                                                                                                        |                                |
| Hao Jiang                                                                                                                                             | Shanghai Jiao Tong Univ.           | Ming Fu                                                                                                                | Guangdong Yuedianke Testing    |
| Dan Huang                                                                                                                                             | Shanghai Jiao Tong Univ.           |                                                                                                                        | Technology Company Limited     |
| Bochen Li                                                                                                                                             | Shanghai Jiao Tong Univ.           | Wang Ran                                                                                                               | Guangdong Yuedianke Testing    |
| Lu Ding                                                                                                                                               | Guang Xi Univ.                     |                                                                                                                        | Technology Company Limited     |
| Chenggang Wang                                                                                                                                        | Shanghai Jiao Tong Univ.           | Fei Zhong                                                                                                              | Guangdong Yuedianke Testing    |
| Lei Song                                                                                                                                              | Shanghai Jiao Tong Univ.           |                                                                                                                        | Technology Company Limited     |
| 08:00-10:00                                                                                                                                           | A12.100                            | Mengqiang Li                                                                                                           | Guangdong Yuedianke Testing    |
| <b>1474</b> <i>RTC-BiFPN-YOLOv8 for X-ray defect detection in strain clamps</i>                                                                       |                                    |                                                                                                                        |                                |
| Jiaxiang Sun                                                                                                                                          | Guangdong Yuedianke Testing        | Jianbo Li                                                                                                              | Guangdong Yuedianke Testing    |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Technology Company Limited     |
| Xin Li                                                                                                                                                | Guangdong Yuedianke Testing        | Wei Deng                                                                                                               | Guangdong Yuedianke Testing    |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Technology Company Limited     |
| Wei Guo                                                                                                                                               | Shantou Power Supply Bureau of     | Fan Lu                                                                                                                 | Guangdong Yuedianke Testing    |
|                                                                                                                                                       | Guangdong Power Grid Co., Ltd.     |                                                                                                                        | Technology Company Limited     |
| Hongshi Chen                                                                                                                                          | Shantou Power Supply Bureau of     | Zhiwu Li                                                                                                               | Guangdong Yuedianke Testing    |
|                                                                                                                                                       | Guangdong Power Grid Co., Ltd.     |                                                                                                                        | Technology Company Limited     |
| Fei Zhong                                                                                                                                             | Guangdong Yuedianke Testing        | Yang Jiao                                                                                                              | Guangdong Yuedianke Testing    |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Technology Company Limited     |
| Dong Fu                                                                                                                                               | Guangdong Yuedianke Testing        | 08:00-10:00                                                                                                            | A12.102                        |
|                                                                                                                                                       | Technology Company Limited         | <b>1486</b> <i>Continuous-space air traffic scenario generation: an intent-driven neuro-symbolic approach</i>          |                                |
| Leishi Xiao                                                                                                                                           | Guangdong Yuedianke Testing        | Wenyi Tang                                                                                                             | Nanjing Research Institute of  |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Electronics Engineering        |
| Longhua Tang                                                                                                                                          | Guangdong Yuedianke Testing        | Yang Zhang                                                                                                             | Nanjing Research Institute of  |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Electronics Engineering        |
| Jianbo Li                                                                                                                                             | Guangdong Yuedianke Testing        | Hui Ding                                                                                                               | Nanjing Research Institute of  |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Electronics Engineering        |
| Mengqiang Li                                                                                                                                          | Guangdong Yuedianke Testing        | Zeyuan Liu                                                                                                             | Nanjing Research Institute of  |
|                                                                                                                                                       | Technology Company Limited         |                                                                                                                        | Electronics Engineering        |
| Yifei Dong                                                                                                                                            | Guangdong Yuedianke Testing        | 08:00-10:00                                                                                                            | A12.103                        |
|                                                                                                                                                       |                                    | <b>1537</b> <i>Minutes-level SCD early warning using LMKNCN classification and correlation-based feature selection</i> |                                |
|                                                                                                                                                       |                                    | Suwen Zhao                                                                                                             | Guilin Univ. of Aerospace      |
|                                                                                                                                                       |                                    |                                                                                                                        | Technology                     |
|                                                                                                                                                       |                                    | Danhong Song                                                                                                           | Chongqing Univ.                |
|                                                                                                                                                       |                                    | Kaiyuan Nie                                                                                                            | Chongqing Univ.                |
|                                                                                                                                                       |                                    | Jian Ding                                                                                                              | Chongqing Univ.                |

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|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Jizuo Zhang                                                                                                                      | Guilin University of Aerospace Technology                                                                              | Rui Meng                                                                                                          | College of Humanities & Information<br>Changchun Univ. of Technology |
| Hongying Liu                                                                                                                     | Chongqing Univ.                                                                                                        | 08:00-10:00                                                                                                       | A12.109                                                              |
| Xiantian Pi                                                                                                                      | Chongqing Univ.                                                                                                        | <b>1707</b> <i>Research on image super-resolution method based on multi-resolution hashing coding</i>             |                                                                      |
| 08:00-10:00                                                                                                                      | A12.104                                                                                                                | Wei Zhao                                                                                                          | Jilin Police College                                                 |
| <b>1559</b> <i>A deep reinforcement learning and LSTM-based motion prediction control strategy for ship dynamic positioning</i>  |                                                                                                                        | Changhua Tang                                                                                                     | College of Humanities & Information, Changchun Univ. of Technology   |
| Changjun Hu                                                                                                                      | Shanghai Marine Electronic Equipment Research Institute                                                                | Qiong Wu                                                                                                          | College of Humanities & Information, Changchun Univ. of Technology   |
| Quan Shi                                                                                                                         | CASCO Signal Ltd.                                                                                                      | Bowen Shi                                                                                                         | College of Humanities & Information, Changchun Univ. of Technology   |
| Xiaoxian Guo                                                                                                                     | Shanghai Jiao Tong Univ.                                                                                               | 08:00-10:00                                                                                                       | A12.110                                                              |
| Xin Li                                                                                                                           | Shanghai Jiao Tong Univ.                                                                                               | <b>1732</b> <i>Improved multi-scale YOLOv8 for small traffic sign detection in intelligent navigation systems</i> |                                                                      |
| 08:00-10:00                                                                                                                      | A12.105                                                                                                                | Lidong Zhao                                                                                                       | College of Humanities & Information, Changchun Univ. of Technology   |
| <b>1587</b> <i>Railway line detector data analysis using transformer and gradient boosting decision tree</i>                     |                                                                                                                        | Qiong Wu                                                                                                          | College of Humanities & Information, Changchun Univ. of Technology   |
| Shijie Zhang                                                                                                                     | Beijing Information Science and Technology Univ.                                                                       | ChangHua Tang                                                                                                     | College of Humanities & Information, Changchun Univ. of Technology   |
| Jingjing Huang                                                                                                                   | Beijing Information Science and Technology Univ.                                                                       | Duorui You                                                                                                        | College of Humanities & Information, Changchun Univ. of Technology   |
| Maofa Wang                                                                                                                       | Beijing Information Science and Technology Univ.                                                                       | Jian Li                                                                                                           | College of Humanities & Information, Changchun Univ. of Technology   |
| 08:00-10:00                                                                                                                      | A12.106                                                                                                                | 08:00-10:00                                                                                                       | A12.111                                                              |
| <b>1593</b> <i>Low-altitude autonomous navigation for UAVs: evolution and future perspectives in the deep learning era</i>       |                                                                                                                        | <b>1744</b> <i>Application of time-triggered ethernet in aircraft systems</i>                                     |                                                                      |
| Ziqi Yang                                                                                                                        | Beihang Univ.                                                                                                          | Yanguo Hu                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute                 |
| Yingjie Fu                                                                                                                       | China Helicopter Research and Development Institute                                                                    | Dong Zhang                                                                                                        | AVIC Shenyang Aircraft Design and Research Institute                 |
| Jingfu Wei                                                                                                                       | China Helicopter Research and Development Institute                                                                    | Bin Niu                                                                                                           | AVIC Shenyang Aircraft Design and Research Institute                 |
| 08:00-10:00                                                                                                                      | A12.107                                                                                                                | Yifan Qi                                                                                                          | AVIC Shenyang Aircraft Design and Research Institute                 |
| <b>1606</b> <i>Evaluation model for flotation operating conditions based on attention-driven multimodal deep learning method</i> |                                                                                                                        | Miao Wu                                                                                                           | AVIC Shenyang Aircraft Design and Research Institute                 |
| Shuai He                                                                                                                         | North China Univ. of Science and Technology                                                                            | 08:00-10:00                                                                                                       | A12.112                                                              |
| Zijie Zeng                                                                                                                       | North China Univ. of Science and Technology                                                                            | <b>148</b> <i>Aerial infrared target recognition framework based on hybrid feature fusion</i>                     |                                                                      |
| Xuecong Fan                                                                                                                      | Hebei wind-Solar-Hydrogen-storage system Security Monitoring and Intelligent Operation Center of Technology Innovation | Zhuoyun Chen                                                                                                      | Beijing Univ. of Technology                                          |
| Zhixian Pei                                                                                                                      | North China Univ. of Science and Technology                                                                            | Shaoyang Ma                                                                                                       | Xi'an Jiaotong University                                            |
| YuXin Cheng                                                                                                                      | North China Univ. of Science and Technology                                                                            | Xiangyin Zhang                                                                                                    | Beijing Univ. of Technology                                          |
| Zhiqiang Wang                                                                                                                    | North China Univ. of Science and Technology                                                                            | 08:00-10:00                                                                                                       | A12.113                                                              |
| 08:00-10:00                                                                                                                      | A12.108                                                                                                                | <b>280</b> <i>Depth-reduced mobileNetV2 for 15-grade tobacco leaf classification</i>                              |                                                                      |
| <b>1706</b> <i>YOLOv11 multi-scale enhanced detection network based on L-GLSA</i>                                                |                                                                                                                        | Zhaoyang Du                                                                                                       | Linyi Univ.                                                          |
| Yuting Xiao                                                                                                                      | College of Humanities & Information Changchun Univ. of Technology                                                      | Bo Wu                                                                                                             | Linyi Univ.                                                          |
| Qiong Wu                                                                                                                         | College of Humanities & Information Changchun Univ. of Technology                                                      | Pengcheng Gao                                                                                                     | Linyi Univ.                                                          |
| Changhua Tang                                                                                                                    | College of Humanities & Information Changchun Univ. of Technology                                                      | Jianhua Liu                                                                                                       | Linyi Univ.                                                          |
| Xinlu Tian                                                                                                                       | College of Humanities & Information Changchun Univ. of Technology                                                      | Feng Zhao                                                                                                         | Linyi Univ.                                                          |
|                                                                                                                                  |                                                                                                                        | Jianlong Qiu                                                                                                      | Linyi Univ.                                                          |
|                                                                                                                                  |                                                                                                                        | Jianqiang Sun                                                                                                     | Linyi Univ.                                                          |
|                                                                                                                                  |                                                                                                                        | 08:00-10:00                                                                                                       | A12.114                                                              |

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| <b>755</b> DTAF-NAS: dynamic target-aware neural architecture search for efficient infrared image object detection on edge NPUs |                                                     | strategy for UAV object detection in harsh environments                                                                       |                                                     |
| Qianqian Hu                                                                                                                     | National Univ. of Defense Technology                | Han Jiang                                                                                                                     | Beihang Univ                                        |
| Yongbin Zheng                                                                                                                   | National Univ. of Defense Technology                | Yishi Liu                                                                                                                     | Beihang Univ.                                       |
| Wanying Xu                                                                                                                      | National Univ. of Defense Technology                | 08:00-10:00                                                                                                                   | A12.121                                             |
| Shengjian Bai                                                                                                                   | National Univ. of Defense Technology                | <b>913</b> Industrial knowledge graph construction under semantic and topological constraints                                 |                                                     |
| 08:00-10:00                                                                                                                     | A12.115                                             | Ming Jian                                                                                                                     | Beijing Institute of Technology                     |
| <b>1224</b> Robust-loss 2D gaussian splatting for fly-around asteroid reconstruction                                            |                                                     | Yinchi Li                                                                                                                     | Beijing Institute of Technology                     |
| Bin Jing                                                                                                                        | Beihang Univ.                                       | Meiling Wang                                                                                                                  | Beijing Institute of Technology                     |
| Pengyu Guo                                                                                                                      | Beihang Univ.                                       | Xiaohan He                                                                                                                    | Beijing Institute of Technology                     |
| Yuandong Li                                                                                                                     | Beihang Univ.                                       | Yihui Wang                                                                                                                    | Beijing Institute of Technology                     |
| Jun Xu                                                                                                                          | Shanghai Institute of Satellite Engineering         | 08:00-10:00                                                                                                                   | A12.122                                             |
| Yuan Li                                                                                                                         | Beihang Univ.                                       | <b>1024</b> A multi-rate spatio-temporal physical causal graph attention network for condition monitoring of hydraulic system |                                                     |
| Dongyu Li                                                                                                                       | Beihang Univ.                                       | Qian Wang                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics       |
| 08:00-10:00                                                                                                                     | A12.116                                             | Yajie Ma                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics.      |
| <b>1464</b> Suspicious person recognition in underground spaces based on improved YOLOv8                                        |                                                     | Bin Jiang                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics.      |
| Qinyi Wang                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics       | Lu Lu                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics       |
| Rongyi bai                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics       | 08:00-10:00                                                                                                                   | A12.123                                             |
| Mou Chen                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics       | <b>1026</b> High-resolution detail-enhanced DEIMv2 for small object detection                                                 |                                                     |
| Tongle Zhou                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics       | Shengwei Zhang                                                                                                                | AVIC Luoyang Institute of Electro-optical Equipment |
| 08:00-10:00                                                                                                                     | A12.117                                             | Yulong Fang                                                                                                                   | AVIC Luoyang Institute of Electro-optical Equipment |
| <b>1612</b> 基于动态融合的双通道相似性度量机动动作识别                                                                                               |                                                     | Jinjin Wan                                                                                                                    | AVIC Luoyang Institute of Electro-optical Equipment |
| HuJun Yang                                                                                                                      | Univ. of Electronic Science and Technology of China | 08:00-10:00                                                                                                                   | A12.124                                             |
| MeiLi Zhang                                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute | <b>1497</b> RandLA-AGNet: accurate airborne LiDAR ground point extraction in complex terrains                                 |                                                     |
| YouXiang Huang                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute | Yali Li                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics       |
| XiangGang Zhang                                                                                                                 | Univ. of Electronic Science and Technology of China | Rongbing Li                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics       |
| XiaoPing Chen                                                                                                                   | Univ. of Electronic Science and Technology of China | Yijing Liu                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics       |
| 08:00-10:00                                                                                                                     | A12.118                                             | 08:00-10:00                                                                                                                   | A12.125                                             |
| <b>105</b> Lightweight multi-scale detection of LNG tanker valves with LitePAN-YOLO                                             |                                                     | <b>1520</b> FAMT: domain adaptation for 4D radar-based 3D object detection                                                    |                                                     |
| Xujie Hu                                                                                                                        | Lianyungang JARI Automation Co., Ltd.               | Qiuchi Zhao                                                                                                                   | Beihang Univ.                                       |
| Lixin Teng                                                                                                                      | Harbin Engineering Univ.                            | Xinyi Zhou                                                                                                                    | Beihang Univ.                                       |
| Renjie Zhu                                                                                                                      | Lianyungang JARI Automation Co., Ltd.               | Weiyl Xiong                                                                                                                   | Beihang Univ.                                       |
| Lanyong Zhang                                                                                                                   | Harbin Engineering Univ.                            | Guanhua Ding                                                                                                                  | Beihang Univ.                                       |
| 08:00-10:00                                                                                                                     | A12.119                                             | Bing Zhu                                                                                                                      | Beihang Univ.                                       |
| <b>384</b> A state of health estimation method for lithium-ion batteries based on the E-xLSTM model                             |                                                     | 08:00-10:00                                                                                                                   | A12.126                                             |
| Liping Zhang                                                                                                                    | Xiamen Univ.                                        | <b>1590</b> MTS-MH-DeepESN:an advanced framework for emotion recognition using EEG signals                                    |                                                     |
| Hongkun Zhang                                                                                                                   | Xiamen Univ.                                        | Wenxuan Tu                                                                                                                    | Nanchang Univ.                                      |
| Jinpeng Zhang                                                                                                                   | China Airborne Missile Academy                      | Qian Li                                                                                                                       | Nanchang Univ.                                      |
| Jian Zhang                                                                                                                      | Xiamen Univ.                                        | Qi Xia                                                                                                                        | Nanchang Univ.                                      |
| Huimin Chen                                                                                                                     | Changji Univ.                                       | Xiaohan Li                                                                                                                    | Nanchang Univ.                                      |
| Delin Luo                                                                                                                       | Xiamen Univ.                                        | Shihan Shan                                                                                                                   | Nanchang Univ.                                      |
| 08:00-10:00                                                                                                                     | A12.120                                             | 08:00-10:00                                                                                                                   | A12.127                                             |
| <b>682</b> FedGuard:a reputation-aware resilient federated learning                                                             |                                                     |                                                                                                                               |                                                     |

**1620** UAV ground target detection and tracking method based on YOLOv11 + DeepSort

|             |                                      |
|-------------|--------------------------------------|
| Xinxi Wang  | National Univ. of Defense Technology |
| Guo-hu Feng | National Univ. of Defense Technology |
| 08:00-10:00 | A12.128                              |

**1693** Microorganism object detection based on improved YOLOv11

|               |                                 |
|---------------|---------------------------------|
| Tonglai Xue   | North China Univ. of Technology |
| Ruisi Zhao    | North China Univ. of Technology |
| Jingcheng Guo | North China Univ. of Technology |
| Zhonghua Pang | North China Univ. of Technology |
| 08:00-10:00   | A12.129                         |

**1753** A satellite in-orbit fault detection method based on the LSTM neural network model

|               |                                   |
|---------------|-----------------------------------|
| Yu Liang      | China Academy of Space Technology |
| Di Hu         | China Academy of Space Technology |
| Tian Zhao     | China Academy of Space Technology |
| Huiyun Zhang  | Beihang Univ.                     |
| Jingcheng Fan | Beihang Univ.                     |
| Diyin Tang    | Beihang Univ.                     |
| 08:00-10:00   | A12.130                           |

**484** Research on clock synchronization mechanism for TTE and TSN converged network in airborne system

|              |                                                       |
|--------------|-------------------------------------------------------|
| Xinning Tang | AVIC Shenyang Aircraft Design and Research Institute  |
| Jiping Han   | AVIC Shenyang Aircraft Design and Research Institute  |
| kaijia Xue   | AVIC Shenyang Aircraft Design and Research Institute  |
| Ruiyang Ban  | AVIC Shenyang Aircraft Design and Research Institute. |
| Yong Zhang   | AVIC Shenyang Aircraft Design and Research Institute  |
| 08:00-10:00  | A12.131                                               |

**777** A study on unified time scheduling and stream mapping mechanisms for heterogeneous networks

|              |                                                       |
|--------------|-------------------------------------------------------|
| Ruiyang Ban  | AVIC Shenyang Aircraft Design and Research Institute, |
| Hao Liu      | AVIC Shenyang Aircraft Design and Research Institute, |
| Zhaochen Shi | AVIC Shenyang Aircraft Design and Research Institute  |
| Xiaoyi Chen  | AVIC Shenyang Aircraft Design and Research Institute  |
| Shuyi Liu    | AVIC Shenyang Aircraft Design and Research Institute  |
| 08:00-10:00  | A12.132                                               |

**1114** Low-rank constrained online learning of koopman operators for time-varying predictive control

|              |                                          |
|--------------|------------------------------------------|
| Xuefeng Wang | Univ. of Science and Technology of China |
| Yang Cao     | Univ. of Science and Technology of China |
| Yu Kang      | Univ. of Science and Technology of China |
| 08:00-10:00  | A12.133                                  |

**213** Observability-aware trajectory optimization for bearing-only

localization with sensor bias

|             |                 |
|-------------|-----------------|
| Zeyuan Li   | Southeast Univ. |
| Linze Chen  | Southeast Univ. |
| Kelin Lu    | Southeast Univ. |
| 08:00-10:00 | A12.134         |

**288** An aircraft position uncertainty model-based flight conflict detection method

|             |                                                   |
|-------------|---------------------------------------------------|
| Hao Wang    | AVIC First Aircraft Design and Research Institute |
| Letian Zhao | AVIC First Aircraft Design and Research Institute |
| Hao Li      | AVIC First Aircraft Design and Research Institute |
| Hang Chen   | AVIC First Aircraft Design and Research Institute |
| Shimin Liu  | AVIC First Aircraft Design and Research Institute |
| 08:00-10:00 | A12.135                                           |

**289** Flight conflict resolution based on horizontal path extension strategy

|             |                                                                                    |
|-------------|------------------------------------------------------------------------------------|
| Yan Sun     | Northwestern Polytechnical Univ. AVIC First Aircraft Design and Research Institute |
| Letian Zhao | AVIC First Aircraft Design and Research Institute                                  |
| Hang Chen   | AVIC First Aircraft Design and Research Institute                                  |
| 08:00-10:00 | A12.136                                                                            |

**649** Aircraft trajectory prediction method based on physics-informed LSTM neural network

|             |                                                     |
|-------------|-----------------------------------------------------|
| Jin Wang    | China Academy of Launch Vehicle Technology          |
| Teng Zhou   | Univ. of Electronic Science and Technology of China |
| Tianren Li  | China Academy of Launch Vehicle Technology          |
| 08:00-10:00 | A12.137                                             |

**739** Robust marine ZTD forecasting using a hybrid Bi-LSTM-GRU residual learning model

|              |                                               |
|--------------|-----------------------------------------------|
| Lei Jiang    | Nanjing Univ. of Aeronautics and Astronautics |
| Rui Sun      | Nanjing Univ. of Aeronautics and Astronautics |
| Jiantang Yin | Nanjing Univ. of Aeronautics and Astronautics |
| Yulin He     | Nanjing Univ. of Aeronautics and Astronautics |
| 08:00-10:00  | A12.138                                       |

**939** Robust gravitational acceleration estimation for rotary steerable systems using  $\ell_1$ -Norm optimization with sliding window IRLS

|               |                                     |
|---------------|-------------------------------------|
| Junhua Luo    | Beihang Univ.                       |
| Haoling Yin   | Bauman Moscow State Technical Univ. |
| Ning Tang     | ITMO Univ.                          |
| A. I. Matasov | Lomonosov Moscow State Univ.        |
| Lingling Wang | Beihang Univ.                       |
| Li Fu         | Beihang Univ.                       |

|                                                                                                                            |                                    |                          |  |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------|--|
| 08:00-10:00                                                                                                                |                                    | A12.139                  |  |
| <b>1309</b> <i>Global parameter sensitivity analysis of the optimal ascent trajectory for a combined-cycle vehicle</i>     |                                    |                          |  |
| Zhiqing Gou                                                                                                                |                                    | Beihang Univ.            |  |
| Lijun Yang                                                                                                                 |                                    | Beihang Univ.            |  |
| Mengyuan Zhao                                                                                                              |                                    | Beihang Univ.            |  |
| Wanchun Chen                                                                                                               |                                    | Beihang Univ.            |  |
| Liang Yang                                                                                                                 |                                    | Beihang Univ.            |  |
| 08:00-10:00                                                                                                                |                                    | A12.140                  |  |
| <b>1611</b> <i>Physics-constrained progressive heuristic A* for bounded-suboptimal UAV path planning in 3D wind fields</i> |                                    |                          |  |
| Jinliang Chen                                                                                                              | Southwest Univ. of Science and     |                          |  |
|                                                                                                                            | Technology                         |                          |  |
| Yuying Guo                                                                                                                 | Southwest Univ. of Science and     |                          |  |
|                                                                                                                            | Technology                         |                          |  |
| 08:00-10:00                                                                                                                |                                    | A12.141                  |  |
| <b>1727</b> <i>State-aware low-complexity decoding algorithm for BeiDou NB-LDPC codes</i>                                  |                                    |                          |  |
| AnYi Lv                                                                                                                    | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Yafeng Li                                                                                                                  | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Yi Ji                                                                                                                      | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ                    |                          |  |
| Junfang Fan                                                                                                                | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ                    |                          |  |
| Sixing Zhang                                                                                                               | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ                    |                          |  |
| 08:00-10:00                                                                                                                |                                    | A12.142                  |  |
| <b>1728</b> <i>Improved unambiguous acquisition algorithm for BeiDou B1C signals based on folded PMF-FFT</i>               |                                    |                          |  |
| Zhankun Wang                                                                                                               | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Yafeng Li                                                                                                                  | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Yi Ji                                                                                                                      | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Junfang Fan                                                                                                                | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| Sixing Zhang                                                                                                               | Beijing Information Science and    |                          |  |
|                                                                                                                            | Technology Univ.                   |                          |  |
| 08:00-10:00                                                                                                                |                                    | A12.143                  |  |
| <b>1349</b> <i>Maneuver-aware dual-adaptive IMM-UKF for bearing-only tracking of maneuvering surface targets</i>           |                                    |                          |  |
| Xinyang Li                                                                                                                 |                                    | Harbin Engineering Univ. |  |
| Xin E                                                                                                                      | Shenyang Institute of Automation,  |                          |  |
|                                                                                                                            | CAS                                |                          |  |
| Hongjian Wang                                                                                                              |                                    | Harbin Engineering Univ. |  |
| Hai Wu                                                                                                                     |                                    | Harbin Engineering Univ. |  |
| Shaozheng Song                                                                                                             |                                    | Harbin Engineering Univ. |  |
| Maozhi Zhao                                                                                                                |                                    | Harbin Engineering Univ. |  |
| 08:00-10:00                                                                                                                |                                    | A12.144                  |  |
| <b>1688</b> <i>Research on target position estimation based on modified spherical coordinates</i>                          |                                    |                          |  |
| Kai Zhao                                                                                                                   | Beijing Institute of Astronautical |                          |  |
|                                                                                                                            | systems Engineering                |                          |  |
| Yani Wang                                                                                                                  | Beijing Institute of Astronautical |                          |  |

|                                                                                                                                               |                                      |                |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------|--|
| Xiuli Yu                                                                                                                                      | Beijing Institute of Astronautical   |                |  |
|                                                                                                                                               | systems Engineering                  |                |  |
| Guojiang Xia                                                                                                                                  | Beijing Institute of Astronautical   |                |  |
|                                                                                                                                               | systems Engineering                  |                |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.145        |  |
| <b>192</b> <i>HysFilter-SLAM: hysteresis-guided dynamic feature filtering with class-agnostic state-space detection</i>                       |                                      |                |  |
| Xue Shen                                                                                                                                      | Nanjing Univ. of Posts and           |                |  |
|                                                                                                                                               | Telecommunications                   |                |  |
| Jiacheng Xu                                                                                                                                   | Nanjing Univ. of post and            |                |  |
|                                                                                                                                               | telecommunication                    |                |  |
| Jin Sun                                                                                                                                       | Nanjing Univ. of Posts and           |                |  |
|                                                                                                                                               | Telecommunications                   |                |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.146        |  |
| <b>259</b> <i>Temporal target persistence for robust vision-language navigation under dynamic-disturbance-induced intermittent perception</i> |                                      |                |  |
| Junrui Chen                                                                                                                                   |                                      | Beihang Univ.  |  |
| Likun Chen                                                                                                                                    |                                      | Beihang Univ.  |  |
| Yichen Li                                                                                                                                     |                                      | Beihang Univ.  |  |
| Shaoru Deng                                                                                                                                   |                                      | Beihang Univ.  |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.147        |  |
| <b>390</b> <i>DFC-VINS: deep feature enhanced collaborative visual-inertial SLAM with online bag-of-words loop closure</i>                    |                                      |                |  |
| Zongyang Chen                                                                                                                                 | National Univ. of Defense Technology |                |  |
| Yu Liu                                                                                                                                        | National Univ. of Defense Technology |                |  |
| Junyao Tang                                                                                                                                   | National Univ. of Defense Technology |                |  |
| Yan Guo                                                                                                                                       | National Univ. of Defense Technology |                |  |
| Yunxiao Lv                                                                                                                                    | National Univ. of Defense Technology |                |  |
| Xianfei Pan                                                                                                                                   | National Univ. of Defense Technology |                |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.148        |  |
| <b>479</b> <i>Super-resolution-guided RGB-IR multimodal small-object detection for remote-sensing imagery</i>                                 |                                      |                |  |
| Difu Zhu                                                                                                                                      |                                      | Beihang Univ.. |  |
| Qingdong Li                                                                                                                                   |                                      | Beihang Univ.  |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.149        |  |
| <b>550</b> <i>A cloud-edge architecture for VLM-driven UAV navigation and task decomposition</i>                                              |                                      |                |  |
| Yanlei Yang                                                                                                                                   |                                      | Beihang Univ.  |  |
| Pei Chi                                                                                                                                       |                                      | Beihang Univ.  |  |
| Jiang Zhao                                                                                                                                    |                                      | Beihang Univ.  |  |
| Hao Zhong                                                                                                                                     |                                      | Beihang Univ.  |  |
| Yingxun Wang                                                                                                                                  |                                      | Beihang Univ.  |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.150        |  |
| <b>662</b> <i>Effect of optical lens parameters on orientation in a micro-array skylight polarization compass</i>                             |                                      |                |  |
| Tangman Cai                                                                                                                                   | National Univ. of Defense Technology |                |  |
| Chen Fan                                                                                                                                      | National Univ. of Defense Technology |                |  |
| Lianwei Teng                                                                                                                                  | National Univ. of Defense Technology |                |  |
| Zhihe Chen                                                                                                                                    | National Univ. of Defense Technology |                |  |
| Lilian Zhang                                                                                                                                  | National Univ. of Defense Technology |                |  |
| 08:00-10:00                                                                                                                                   |                                      | A12.151        |  |
| <b>690</b> <i>Automatic landing guidance with monocular vision pose measurement based on image matching</i>                                   |                                      |                |  |
| Yu Wang                                                                                                                                       | Northwestern Polytechnical Univ.,    |                |  |
| Dapeng Zhou                                                                                                                                   | AVIC Shenyang Aircraft Design        |                |  |

|                |                                                                                                                            |                  |                                                                                                                             |
|----------------|----------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                | and Research Institute                                                                                                     |                  | based on improved monodepth2                                                                                                |
| Peng Qian      | AVIC Shenyang Aircraft Design and Research Institute                                                                       | Jinjin Wan       | Avic Luoyang Institute of Electro-optical Equipment                                                                         |
| Zheng Sun      | AVIC Shenyang Aircraft Design and Research Institute                                                                       | Xuekangping Zhou | Xiamen Univ. Malaysia                                                                                                       |
| Zhao Jin       | AVIC Shenyang Aircraft Design and Research Institute                                                                       | 08:00-10:00      | A12.159                                                                                                                     |
| 08:00-10:00    | A12.152                                                                                                                    | <b>1345</b>      | <i>Lightweight small object detection method with shallow enhancement for UAV aerial imagery based on improved YOLOv10s</i> |
| <b>819</b>     | <i>Dynamic error analysis and calibration for a vortex retarder-based polarization compass</i>                             | Haoran Li        | Beijing Information Science and Technology Univ.                                                                            |
| Xiaoyu Cao     | National Univ. of Defense Technology                                                                                       | Qianqian Li      | Beijing Information Science and Technology Univ.                                                                            |
| Yabo Huang     | National Univ. of Defense Technology                                                                                       | Junfang Fan      | Beijing Information Science and Technology Univ.                                                                            |
| Xiaoyang Xia   | National Univ. of Defense Technology                                                                                       | Xiaobin Xu       | Beijing Information Science and Technology Univ.                                                                            |
| Zhe Xie        | National Univ. of Defense Technology                                                                                       | 08:00-10:00      | A12.160                                                                                                                     |
| Bing Lei       | National Univ. of Defense Technology                                                                                       | <b>1646</b>      | <i>A visual navigation method based on 3D maps</i>                                                                          |
| 08:00-10:00    | A12.153                                                                                                                    | Nan Liu          | AVIC Xi'an Flight Automatic Control Research Institute, Aviation                                                            |
| <b>846</b>     | <i>Monocular vision-based detection method for UAV air-to-air target state estimation and tracking</i>                     | Yazhou Yue       | AVIC Xi'an Flight Automatic Control Research Institute                                                                      |
| Ying Chen      | Harbin Institute of Technology                                                                                             | Qi Zhou          | AVIC Xi'an Flight Automatic Control Research Institute                                                                      |
| Guangping Zhou | Harbin Institute of Technology                                                                                             | Xiaodong Zhang   | AVIC Xi'an Flight Automatic Control Research Institute                                                                      |
| Xu Wang        | Harbin Institute of Technology                                                                                             | Qixuan Sun       | AVIC Xi'an Flight Automatic Control Research Institute                                                                      |
| Rui Zhou       | Harbin Institute of Technology                                                                                             | 08:00-10:00      | A12.161                                                                                                                     |
| Yanfang Liu    | Harbin Institute of Technology                                                                                             | <b>1687</b>      | <i>Relative navigation algorithm for space object based on angle-only measurement</i>                                       |
| 08:00-10:00    | A12.154                                                                                                                    | Kai Zhao         | Beijing Institute of Astronautical systems Engineering                                                                      |
| <b>907</b>     | <i>A spiking neural network (SNN) enhanced lift-splat-shoot framework for temporally robust bird's-eye-view perception</i> | Yu Han           | Beijing Institute of Astronautical Systems Engineering                                                                      |
| Xinyu Xu       | Beihang Univ.                                                                                                              | Xiuli Yu         | Beijing Institute of Astronautical systems Engineering                                                                      |
| Enhao Zeng     | Beihang Univ.                                                                                                              | Guojiang Xia     | Beijing Institute of Astronautical systems Engineering                                                                      |
| Yixin Liu      | Beihang Univ.                                                                                                              | 08:00-10:00      | A12.162                                                                                                                     |
| Li Fu          | Beihang Univ.                                                                                                              | <b>1703</b>      | <i>A semantic visual SLAM method in dynamic scenes based on object-level geometric voting</i>                               |
| Lingling Wang  | Beihang Univ.                                                                                                              | Xiao Ma          | Aerospace Information Research Institute,CAS                                                                                |
| 08:00-10:00    | A12.155                                                                                                                    | Li Wang          | Beijing Institute of Technology                                                                                             |
| <b>1055</b>    | <i>Topology-guided lifelong semantic mapping for indoor object navigation</i>                                              | Dong Li          | Aerospace Information Research Institute,CAS                                                                                |
| Yuhang Gao     | Peking Univ.                                                                                                               | Ruixuan Gong     | Beijing Institute of Technology                                                                                             |
| Yadong Mu      | Peking Univ.                                                                                                               | Cheng Wang       | Aerospace Information Research Institute,CAS                                                                                |
| 08:00-10:00    | A12.156                                                                                                                    | 08:00-10:00      | A12.163                                                                                                                     |
| <b>1102</b>    | <i>Degeneracy-robust 6-DOF Visual localization for edge-computing UAVs in GNSS-denied environments</i>                     | <b>144</b>       | <i>Risk-aware discrete RL gating for robust INS/ESKF integrated navigation</i>                                              |
| Jing Yuan      | Beihang Univ.                                                                                                              | Hang Hu          | Shenyang Aerospace Univ.                                                                                                    |
| Dawei Li       | Beihang Univ.                                                                                                              | Xin Liu          | Shenyang Aerospace Univ.                                                                                                    |
| 08:00-10:00    | A12.157                                                                                                                    | Dongwei Zhang    | Shenyang Aerospace Univ.                                                                                                    |
| <b>1113</b>    | <i>基于视觉融合的机场自主定位技术</i>                                                                                                     | 08:00-10:00      | A12.164                                                                                                                     |
| Hongyuan Zhu   | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| Jing Ni        | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| Bo Ma          | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| Kun Liang      | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| Hao Wei        | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| Yiwen Hu       | AVIC Chengdu Aircraft Design and Research Institute                                                                        |                  |                                                                                                                             |
| 08:00-10:00    | A12.158                                                                                                                    |                  |                                                                                                                             |
| <b>1294</b>    | <i>Unsupervised monocular image depth estimation algorithm</i>                                                             |                  |                                                                                                                             |

**197** *Supplementary explanation on using a vacuum quartz tube to prove the existence of an absolute stationary reference frame*

Qinyan Zhou  
Jiajun Zhou

08:00-10:00 A12.165

**198** *A hypothetical experimental approach to prove the existence of an absolutely stationary reference frame by using the mach-zehnder interferometer*

Qinyan Zhou  
Jiajun Zhou

08:00-10:00 A12.166

**1002** *Distributed adaptive event-triggered consensus control for unmanned aerial vehicles*

|             |                                                       |
|-------------|-------------------------------------------------------|
| Fuqiang Di  | Xi'an Modern Control Technology<br>Research Institute |
| Jiang Chang | Xi'an Modern Control Technology<br>Research Institute |
| Gang Wang   | Xi'an Modern Control Technology<br>Research Institute |
| Qiang Luo   | Xi'an Modern Control Technology<br>Research Institute |
| Zeyu Xu     | Xi'an Modern Control Technology<br>Research Institute |

08:00-10:00 A12.167

**272** *Investigating multi-channel satellite inter-frequency differential code biases for GPS/GLONASS CDMA+FDMA signals*

|               |                               |
|---------------|-------------------------------|
| Yuhan Xiao    | Army Engineering Univ. of PLA |
| Fan Zhang     | Army Engineering Univ. of PLA |
| Jun Lei       | Army Engineering Univ. of PLA |
| Xianghan Chen | Army Engineering Univ. of PLA |
| Anwen Wang    | Army Engineering Univ. of PLA |
| Wei Lu        | Army Engineering Univ. of PLA |

08:00-10:00 A12.168

**320** *Implementation of a multi-system GNSS receiver based on HackRF One*

|              |                         |
|--------------|-------------------------|
| Jinyan Zhang | Space Engineering Univ. |
| Yanfeng Hu   | Space Engineering Univ. |
| Jing Guo     | Space Engineering Univ. |

08:00-10:00 A12.169

**358** *INS/BA/GNSS altitude data fusion method based on soft chi-square test*

|             |                                                  |
|-------------|--------------------------------------------------|
| Bingzhi Su  | AVIC Helicopter Design and<br>Research Institute |
| Xi Cao      | AVIC Helicopter Design and<br>Research Institute |
| Chonghui Li | AVIC Helicopter Design and<br>Research Institute |
| Yuguo Hu    | AVIC Helicopter Design and<br>Research Institute |
| Lin Xia     | AVIC Helicopter Design and<br>Research Institute |

08:00-10:00 A12.170

**565** *A robust RTK/INS integrated navigation algorithm driven by ambiguity-state for challenging environments*

|              |                                                  |
|--------------|--------------------------------------------------|
| Jialiang Xue | Nanjing Univ. of Aeronautics and<br>Astronautics |
|--------------|--------------------------------------------------|

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|---------|--------------------------------------------------|
| Rui Sun | Nanjing Univ. of Aeronautics and<br>Astronautics |
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| Lei Jiang | Nanjing Univ. of Aeronautics and<br>Astronautics |
|-----------|--------------------------------------------------|

08:00-10:00 A12.171

**614** *A hyperparameter-optimized feature fusion method for seamless ins/gnss navigation during GNSS outages*

|             |                      |
|-------------|----------------------|
| Qikun Wang  | Inner Mongolia Univ. |
| Xiaokai Wei | Inner Mongolia Univ. |

08:00-10:00 A12.172

**694** *A deeply coupled inertial-visual navigation system based on pixel-matching reprojection*

|               |                                                           |
|---------------|-----------------------------------------------------------|
| Haofeng Jiang | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Qi Zhou       | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Yazhou Yue    | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Jinjiang Wang | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Haoming Wang  | AVIC Xi'an Flight Automatic<br>Control Research Institute |

08:00-10:00 A12.173

**696** *Barometer-assisted factor graph fusion of visual-inertial odometry and scene matching for autonomous navigation in GNSS-denied environments*

|               |                                                           |
|---------------|-----------------------------------------------------------|
| Jinjiang Wang | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Qi Zhou       | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Yazhou Yue    | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Haofeng Jiang | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Haoming Wang  | AVIC Xi'an Flight Automatic<br>Control Research Institute |
| Nan Liu       | AVIC Xi'an Flight Automatic<br>Control Research Institute |

08:00-10:00 A12.174

**330** *Flight control hydraulic servo actuation system load performance modeling*

|                |                                                      |
|----------------|------------------------------------------------------|
| Yang Qu        | AVIC First Aircraft Design and<br>Research Institute |
| Jiasheng Zhang | AVIC First Aircraft Design and<br>Research Institute |
| Junhong Zhang  | AVIC First Aircraft Design and<br>Research Institute |

08:00-10:00 A12.175

**19** *一种基于低轨卫星的导航系统接收机设计*

|                |                                                                             |
|----------------|-----------------------------------------------------------------------------|
| Lina Xu        | Aviation Key Laboratory of Science<br>and Technology on Inertial Technology |
| Mengting Zhang | Aviation Key Laboratory of Science<br>and Technology on Inertial Technology |
| Guoda Cheng    | Aviation Key Laboratory of Science<br>and Technology on Inertial Technology |
| Yimin Wang     | Aviation Key Laboratory of Science<br>and Technology on Inertial Technology |

| B1                                                                                                                                    | 1st Floor VIP Room                                  |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Robust GNC                                                                                                                            | 1 层 贵宾厅                                             |
| Chairs: Yuhang Xu                                                                                                                     |                                                     |
| 10:15-10:23                                                                                                                           | B1.1                                                |
| <b>327</b> <i>Shape perception of continuum robots: methods, challenges, and prospects</i>                                            |                                                     |
| Tingting Su                                                                                                                           | Beijing Univ. of Technology                         |
| Yue Zhang                                                                                                                             | Beijing Univ. of Technology                         |
| Xu Liang                                                                                                                              | Beijing Jiaotong Univ.                              |
| Zeye Liu                                                                                                                              | Peking Univ. People's Hospital                      |
| Wendong Xiao                                                                                                                          | Univ. of Science and Technology                     |
| Shoulie Xie                                                                                                                           | Agency for Science, Technology and Research(A*STAR) |
| Nan Ma                                                                                                                                | Beijing Univ. of Technology                         |
| 10:23-10:31                                                                                                                           | B1.2                                                |
| <b>457</b> <i>Control strategy for high inertia variable overload servo systems</i>                                                   |                                                     |
| Fang Yang                                                                                                                             | Qing'An Group Co., Ltd.                             |
| YongFeng Du                                                                                                                           | Qing'An Group Co., Ltd.                             |
| Shaojin Cui                                                                                                                           | Qing'An Group Co., Ltd.                             |
| Hongjun Pang                                                                                                                          | Qing'An Group Co., Ltd.                             |
| Hao Li                                                                                                                                | Qing'An Group Co., Ltd.                             |
| Qian Su                                                                                                                               | Qing'An Group Co., Ltd.                             |
| 10:31-10:39                                                                                                                           | B1.3                                                |
| <b>1373</b> <i>Event-triggered geometric control for UAVs with prescribed-time performance</i>                                        |                                                     |
| Liping Wang                                                                                                                           | Suzhou City Univ.                                   |
| Aiping Wu                                                                                                                             | Suzhou City Univ.                                   |
| 10:39-10:47                                                                                                                           | B1.4                                                |
| <b>128</b> <i>Topology-reconfigurable formation control in dynamic games via graphical actor-critic learning</i>                      |                                                     |
| Yizhen Meng                                                                                                                           | Shanghai Aerospace Control Technology Institute     |
| Zengyi Lyu                                                                                                                            | Shanghai Aerospace Control Technology Institute     |
| Longyu Tan                                                                                                                            | Shanghai Aerospace Control Technology Institute     |
| Jingxi Liu                                                                                                                            | Shanghai Aerospace Control Technology Institute     |
| 10:47-10:55                                                                                                                           | B1.5                                                |
| <b>626</b> <i>Chance-constrained convex trajectory programming for rocket recovery based on most probable point</i>                   |                                                     |
| Jiaju Wu                                                                                                                              | National Univ. of Defense Technology                |
| Xiang Zhou                                                                                                                            | National Univ. of Defense Technology                |
| Hongbo Zhang                                                                                                                          | National Univ. of Defense Technology                |
| Guojian Tang                                                                                                                          | National Univ. of Defense Technology                |
| 10:55-11:03                                                                                                                           | B1.6                                                |
| <b>1641</b> <i>Dynamical active disturbance rejection longitudinal control for hypersonic aircraft with unknown moment of inertia</i> |                                                     |
| Tengyu Ma                                                                                                                             | Univ. of Electronic Science and Technology of China |
| Shuming Xiao                                                                                                                          | Univ. of Electronic Science and Technology of China |
| Jianxiao Zou                                                                                                                          | Univ. of Electronic Science and Technology of China |
| Ping Liu                                                                                                                              | Univ. of Electronic Science and                     |

| Technology of China                                                                                                                               |                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 11:03-11:11                                                                                                                                       | B1.7                                               |
| <b>1627</b> <i>Dynamic event-triggered interval observer design for GNC battery thermal management systems</i>                                    |                                                    |
| Shuaibo Gao                                                                                                                                       | Henan Univ. of Science and Technology              |
| Shuo Han                                                                                                                                          | Henan Univ. of Science and Technology              |
| Shuai Song                                                                                                                                        | Henan Univ. of Science and Technology              |
| Xiaona Song                                                                                                                                       | Henan Univ. of Science and Technology              |
| 11:11-11:19                                                                                                                                       | B1.8                                               |
| <b>1478</b> <i>Research on fault diagnosis method of rolling bearing based on SSCP-CNN</i>                                                        |                                                    |
| Liyuan Lyu                                                                                                                                        | Naval Aviation Univ.                               |
| Haomin Dai                                                                                                                                        | Naval Aviation Univ.                               |
| Chengyue Li                                                                                                                                       | Naval Aviation Univ.                               |
| Yongzhan Chen                                                                                                                                     | Naval Aviation Univ.                               |
| Chao Wang                                                                                                                                         | Naval Aviation Univ.                               |
| Xingchen Liu                                                                                                                                      | Naval Aviation Univ.                               |
| Chenfeng Sun                                                                                                                                      | Naval Aviation Univ.                               |
| 11:19-11:27                                                                                                                                       | B1.9                                               |
| <b>1712</b> <i>The global maximum principle for optimal control of partially observed stochastic systems driven by fractional Brownian motion</i> |                                                    |
| Yueyang Zheng                                                                                                                                     | Fudan University                                   |
| Yaozhong Hu                                                                                                                                       | University of Alberta                              |
| 11:27-11:35                                                                                                                                       | B1.10                                              |
| <b>299</b> <i>基于 Gap 度量的分布式航空发动机联邦学习故障诊断方法</i>                                                                                                    |                                                    |
| Lihao Ye                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics      |
| Yuhang Xu                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics      |
| Li Guo                                                                                                                                            | Anhui Polytechnic Univ.                            |
| Bin Jiang                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics      |
| 11:35-11:43                                                                                                                                       | B1.11                                              |
| <b>1513</b> <i>Invariant extended kalman filter-based fault diagnosis for spacecraft attitude control systems under dynamic conditions</i>        |                                                    |
| Tong Wang                                                                                                                                         | Beijing Institute of Spacecraft System Engineering |
| Chenggeng Wu                                                                                                                                      | Beijing Institute of Spacecraft System Engineering |
| Ronghai Kou                                                                                                                                       | Northwestern Polytechnical Univ.                   |
| Qingqing Dang                                                                                                                                     | Northwestern Polytechnical Univ.                   |
| 11:43-11:51                                                                                                                                       | B1.12                                              |
| <b>1683</b> <i>Distributed Lyapunov-based model predictive control for UAV swarm formation tracking with prescribed performance</i>               |                                                    |
| Chengji Tian                                                                                                                                      | South China Univ. of Technology                    |
| Wei Liu                                                                                                                                           | South China Univ. of Technology                    |
| 11:51-11:59                                                                                                                                       | B1.13                                              |
| <b>1609</b> <i>Bumpless reconfigurable fault-tolerant control of hypersonic vehicles based on nonlinear ESO</i>                                   |                                                    |
| Jiabao Li                                                                                                                                         | Harbin Institute of Technology                     |
| Wentian Nie                                                                                                                                       | Beijing Aerospace Technology Institute             |
| Sen Yang                                                                                                                                          | Harbin Institute of Technology                     |

|                                                                                                                                             |                                                  |                                                                                                                                          |                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Qiang Wang                                                                                                                                  | Harbin Institute of Technology                   | Jia Liu                                                                                                                                  | Rocket Force Univ. of Engineering             |
| Zhenhua Wang                                                                                                                                | Harbin Institute of Technology                   | Zhengquan Liu                                                                                                                            | Rocket Force Univ. of Engineering             |
| Baiyang Zhu                                                                                                                                 | Beijing Aerospace Technology Institute           | Jian Zhou                                                                                                                                | Xi'an Research Institute of Hi-tech           |
| 11:59-12:07                                                                                                                                 | B1.14                                            | 10:47-10:55                                                                                                                              | B2.5                                          |
| <b>1141</b> 执行器故障与输入饱和下航天器 <i>HOCBF</i> 容错避碰                                                                                                |                                                  |                                                                                                                                          |                                               |
| Hang Yu                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics    | Fancheng Ding                                                                                                                            | Beihang Univ.                                 |
| Yajie Ma                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics    | Yangzhu Wang                                                                                                                             | Beihang Univ.                                 |
| Bin Jiang                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics    | Kun Wu                                                                                                                                   | Beihang Univ.                                 |
|                                                                                                                                             |                                                  | Xiaoman Zhang                                                                                                                            | Beihang Univ.                                 |
|                                                                                                                                             |                                                  | Huaxin Qiu                                                                                                                               | Beihang Univ.                                 |
| 12:07-12:15                                                                                                                                 | B1.15                                            | 10:55-11:03                                                                                                                              | B2.6                                          |
| <b>270</b> <i>A risk assessment method for low-altitude aircraft operation based on pythagorean hesitant fuzzy sets and evidence theory</i> |                                                  |                                                                                                                                          |                                               |
| Xiaowei Niu                                                                                                                                 | Air Force Engineering Univ.                      | Tingting Hu                                                                                                                              | National Univ. of Defense Technology          |
| Di Shen                                                                                                                                     | Air Force Engineering Univ.                      | Yu Li                                                                                                                                    | Academy of Military Sciences                  |
| Fuping Yu                                                                                                                                   | Air Force Engineering Univ.                      | Xianqi Chen                                                                                                                              | Academy of Military Sciences                  |
| Xiaoyue Ren                                                                                                                                 | Air Force Engineering Univ.                      | Ye Chen                                                                                                                                  | Shanghai Institute of Satellite Engineering   |
| Qinyue Zhang                                                                                                                                | The No. 93406th Troops of PLA                    | Weien Zhou                                                                                                                               | Academy of Military Sciences                  |
| Xiaofei Zhang                                                                                                                               | The No. 93173th Troops of PLA                    | Wen Yao                                                                                                                                  | Academy of Military Sciences                  |
| <b>B2</b>                                                                                                                                   | <b>2nd Floor Yangshuo Room</b>                   | 11:03-11:11                                                                                                                              | B2.7                                          |
| <b>Reinforcement GNC</b>                                                                                                                    | <b>2 层 阳朔厅</b>                                   | <b>246</b> <i>Spiking transformer for energy-efficient battery state-of-health estimation</i>                                            |                                               |
| Chairs: Di Liu                                                                                                                              |                                                  | Yi Wan                                                                                                                                   | Beihang Univ.                                 |
| 10:15-10:23                                                                                                                                 | B2.1                                             | Shaoping Wang                                                                                                                            | Beihang Univ.                                 |
| <b>1419</b> <i>Route planning based on improved SAC algorithm</i>                                                                           |                                                  |                                                                                                                                          |                                               |
| Xingyi Pan                                                                                                                                  | Air Force Engineering Univ.                      | Yixuan Zhao                                                                                                                              | Beihang Univ.                                 |
| Xingyu He                                                                                                                                   | Air Force Engineering Univ.                      | Zhongze He                                                                                                                               | Beihang Univ.                                 |
| Duo Qi                                                                                                                                      | Air Force Engineering Univ.                      | Jian Shi                                                                                                                                 | Beihang Univ.                                 |
| Wei Chen                                                                                                                                    | Air Force Engineering Univ.                      | Di Liu                                                                                                                                   | Beihang Univ.                                 |
| 10:23-10:31                                                                                                                                 | B2.2                                             | 11:11-11:19                                                                                                                              | B2.8                                          |
| <b>399</b> <i>Intelligent penetration guidance law design based on PN+PPO hybrid architecture</i>                                           |                                                  |                                                                                                                                          |                                               |
| Junfan Wang                                                                                                                                 | Beihang Univ.                                    | Tianxing Xu                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics |
| Jianglong Yu                                                                                                                                | Beihang Univ.                                    | Dongyang Fang                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics |
| Hou Yi                                                                                                                                      | Beihang Univ.                                    | Ying Nan                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics |
| Hong Jiang                                                                                                                                  | Beihang Univ.                                    | Moufu Zhang                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics |
| 10:31-10:39                                                                                                                                 | B2.3                                             | 11:19-11:27                                                                                                                              | B2.9                                          |
| <b>1566</b> <i>Robust humanoid locomotion under action delay: factorizing delayed-actuation exposure and explicit delay awareness</i>       |                                                  |                                                                                                                                          |                                               |
| Xulin Fu                                                                                                                                    | Beijing Information Science and Technology Univ. | <b>1011</b> <i>TIDE: LLM-driven intent-dynamics decoupling and semantic refinement for learning-based multi-agent motion forecasting</i> |                                               |
| Daiwei Chen                                                                                                                                 | Beijing Information Science and Technology Univ. | Junle Wang                                                                                                                               | Beihang Univ.                                 |
| Donghao Zhang                                                                                                                               | Beijing Information Science and Technology Univ. | Shuguang Zhang                                                                                                                           | Beihang Univ.                                 |
| Youzhi Dong                                                                                                                                 | Beijing Information Science and Technology Univ. | Yandong Wang                                                                                                                             | Beihang Univ.                                 |
| Wei He                                                                                                                                      | Beijing Information Science and Technology Univ. | Xuxin Lv                                                                                                                                 | Beihang Univ.                                 |
| 10:39-10:47                                                                                                                                 | B2.4                                             | Wenjun Wu                                                                                                                                | Beihang Univ.                                 |
| <b>1301</b> 面向复杂机动目标拦截的动态课程学习智能制导方法                                                                                                         |                                                  |                                                                                                                                          |                                               |
| Fucong Liu                                                                                                                                  | Rocket Force Univ. of Engineering                | 11:27-11:35                                                                                                                              | B2.10                                         |
| Yang Guo                                                                                                                                    | Rocket Force Univ. of Engineering                | <b>1073</b> <i>Air-to-air infrared UAV detection: a dedicated dataset for UAV-anti-UAV and deep learning evaluation</i>                  |                                               |
| Jin Wang                                                                                                                                    | Rocket Force Univ. of Engineering                | Xuanyue Sun                                                                                                                              | Sun Yat-sen Univ.                             |
|                                                                                                                                             |                                                  | Xuhui Yang                                                                                                                               | Sun Yat-sen Univ.                             |
|                                                                                                                                             |                                                  | Chengwei Li                                                                                                                              | Sun Yat-sen Univ.                             |
|                                                                                                                                             |                                                  | Zhaoheng Wu                                                                                                                              | Sun Yat-sen Univ.                             |
|                                                                                                                                             |                                                  | Yong Wang                                                                                                                                | Sun Yat-sen Univ.                             |

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|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------|
| Shunan Wu                                                                                                                      | Sun Yat-sen Univ.                    | Ludi Wang                                                                                              | Beijing Aerospace Automatic              |
| Zhigang Wu                                                                                                                     | Sun Yat-sen Univ.                    |                                                                                                        | Control Institute                        |
| 11:35-11:43                                                                                                                    | B2.11                                | Huimin Wang                                                                                            | Beijing Aerospace Automatic              |
| <b>1677 MobileHomo: a lightweight unsupervised homography estimation network for mobile inference</b>                          |                                      |                                                                                                        | Control Institute                        |
| Xinqi Zhao                                                                                                                     | National Univ. of Defense Technology | Pengcheng Dong                                                                                         | Beijing Aerospace Automatic              |
| Zihao Zhou                                                                                                                     | National Univ. of Defense Technology |                                                                                                        | Control Institute                        |
| Xu Zhang                                                                                                                       | National Univ. of Defense Technology | 10:31-10:39                                                                                            | B3.3                                     |
| Xiangke Wang                                                                                                                   | National Univ. of Defense Technology | <b>509 Optimizing intermediate states in LLM-A* search for complex reasoning</b>                       |                                          |
| Xianguo Yu                                                                                                                     | National Univ. of Defense Technology | Chen Ji                                                                                                | Yangzhou Univ.                           |
| 11:43-11:51                                                                                                                    | B2.12                                | Rui Cao                                                                                                | Yangzhou Univ.                           |
| <b>844 Scale-adaptive adversarial attacks on YOLO-based UAV detection</b>                                                      |                                      | 10:39-10:47                                                                                            | B3.4                                     |
| Jianjun Li                                                                                                                     | Guangxi Univ.                        | <b>542 A landing marker detection and tracking method based on deep learning and template matching</b> |                                          |
| Lu Ding                                                                                                                        | Guangxi Univ.                        | Wen Yu                                                                                                 | AVIC Beijing Keeven Aviation             |
| Bochen Li                                                                                                                      | Shanghai Jiao Tong Univ.             |                                                                                                        | Instrument CO., Ltd.                     |
| Chenggang Wang                                                                                                                 | Shanghai Jiao Tong Univ.             | Hongjun Hu                                                                                             | AVIC Beijing Keeven Aviation             |
| Lei Song                                                                                                                       | Shanghai Jiao Tong Univ.             |                                                                                                        | Instrument CO., Ltd.                     |
| Dan Huang                                                                                                                      | Shanghai Jiao Tong Univ.             | Zihao Qi                                                                                               | AVIC Beijing Keeven Aviation             |
| Huaping Liu                                                                                                                    | Tsinghua Univ.                       |                                                                                                        | Instrument CO., Ltd.                     |
| 11:51-11:59                                                                                                                    | B2.13                                | Yanwei Zhang                                                                                           | AVIC Beijing Keeven Aviation             |
| <b>1154 PhyFormer: a physics-consistent residual transformer with semi-supervised learning for UAV GNSS spoofing detection</b> |                                      |                                                                                                        | Instrument CO., Ltd.                     |
| Yating Lai                                                                                                                     | National Univ. of Defense Technology | Peng Yan                                                                                               | AVIC Beijing Keeven Aviation             |
| Xujie Qin                                                                                                                      | National Univ. of Defense Technology |                                                                                                        | Instrument CO., Ltd.                     |
| Yirui Cong                                                                                                                     | National Univ. of Defense Technology | Yue Zheng                                                                                              | AVIC Beijing Keeven Aviation             |
| 11:59-12:07                                                                                                                    | B2.14                                |                                                                                                        | Instrument CO., Ltd.                     |
| <b>1143 Resilient reconfiguration for UAV Ad Hoc networks based on graph attention proximal policy optimization</b>            |                                      | Xuchen Zhang                                                                                           | AVIC Beijing Keeven Aviation             |
| Lunshi Xu                                                                                                                      | Nanjing Univ. of Aeronautics and     |                                                                                                        | Instrument CO., Ltd.                     |
|                                                                                                                                | Astronautics                         | 10:47-10:55                                                                                            | B3.5                                     |
| Ke Zhang                                                                                                                       | Nanjing Univ. of Aeronautics and     | <b>1544 CGAN: 面向单目航天器位姿估计的基于几何边缘先验的 Circulant-Mamba 网络</b>                                             |                                          |
|                                                                                                                                | Astronautics                         | Yunting Gui                                                                                            | Changchun Univ. of Science and           |
| Bin Jiang                                                                                                                      | Nanjing Univ. of Aeronautics and     |                                                                                                        | Technology                               |
|                                                                                                                                | Astronautics                         | Xueming Xiao                                                                                           | Changchun Univ. of Science and           |
| 12:07-12:15                                                                                                                    | B2.15                                |                                                                                                        | Technology                               |
| <b>1658 LP-SLD-YOLO: a lightweight teacher-student framework for small object detection in UAV aerial imagery</b>              |                                      | Yuegang Fu                                                                                             | Changchun Univ. of Science and           |
| Zhiteng Liao                                                                                                                   | Southeast Univ.                      |                                                                                                        | Technology                               |
| He Wang                                                                                                                        | Southeast Univ.                      | Meibao Yao                                                                                             | Jilin Univ.                              |
| Wenwu Yu                                                                                                                       | Southeast Univ.                      | Xiangyu Huang                                                                                          | Beijing Institute of Control Engineering |
| <b>B3 2nd Floor Lipu Room</b>                                                                                                  |                                      | 10:55-11:03                                                                                            | B3.6                                     |
| <b>Vision GNC 2 层 荔浦厅</b>                                                                                                      |                                      | <b>1204 视觉滑翔机场建图与定位技术</b>                                                                              |                                          |
| Chairs: Guochen Niu                                                                                                            |                                      | Hongyuan Zhu                                                                                           | AVIC Chengdu Aircraft Design and         |
| 10:15-10:23                                                                                                                    | B3.1                                 |                                                                                                        | Research Institute                       |
| <b>1453 面向航站楼密集人群的移动机器人社会感知避障方法</b>                                                                                            |                                      | Bo Ma                                                                                                  | AVIC Chengdu Aircraft Design and         |
| Guochen Niu                                                                                                                    | China Civil Aviation Smart Airport   |                                                                                                        | Research Institute                       |
|                                                                                                                                | Theory and System Key Laboratory     | Yiwen Hu                                                                                               | AVIC Chengdu Aircraft Design and         |
| Xue Wang                                                                                                                       | Civil Aviation Univ. of China        |                                                                                                        | Research Institute                       |
| Yuguo Zhang                                                                                                                    | Civil Aviation Univ. of China        | Kun Liang                                                                                              | AVIC Chengdu Aircraft Design and         |
| 10:23-10:31                                                                                                                    | B3.2                                 |                                                                                                        | Research Institute                       |
| <b>1723 Adaptive Control Method for Launch Vehicle Based on Incremental Online Reinforcement Learning</b>                      |                                      | Hao Wei                                                                                                | AVIC Chengdu Aircraft Design and         |
| Zhaolei Wang                                                                                                                   | Beijing Aerospace Automatic          |                                                                                                        | Research Institute                       |
|                                                                                                                                | Control Institute                    | Jing Ni                                                                                                | AVIC Chengdu Aircraft Design and         |
|                                                                                                                                |                                      |                                                                                                        | Research Institute                       |
|                                                                                                                                |                                      | 11:03-11:11                                                                                            | B3.7                                     |
|                                                                                                                                |                                      | <b>1159 Research on optimization method of transfer alignment under dynamic condition</b>              |                                          |
|                                                                                                                                |                                      | Chenglong Duan                                                                                         | Beijing Keeven Aviation Instrument       |

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|                                                                                                                                                 |                                                               | Co.,Ltd. | Hairui Jiang                                                                                                                         | COMAC Shanghai Aircraft Design and Research Institute |
| Yongsheng Hu                                                                                                                                    | Beijing Keeven Aviation Instrument Co.,Ltd.                   |          | Mengyao Wu                                                                                                                           | COMAC Shanghai Aircraft Design and Research Institute |
| Peng Yan                                                                                                                                        | Beijing Keeven Aviation Instrument Co.,Ltd.                   |          | Dongguang Xu                                                                                                                         | COMAC Shanghai Aircraft Design and Research Institute |
| Xiao Zhang                                                                                                                                      | Beijing Keeven Aviation Instrument Co.,Ltd.                   |          | Hualong Dong                                                                                                                         | COMAC Shanghai Aircraft Design and Research Institute |
| 11:11-11:19                                                                                                                                     |                                                               | B3.8     | Qi Chen                                                                                                                              | COMAC Shanghai Aircraft Design and Research Institute |
| <b>709</b> <i>Innovation-driven adaptive lie group extended kalman filter for world-frame SINS/GNSS integrated navigation</i>                   |                                                               |          |                                                                                                                                      |                                                       |
| Fuan Duan                                                                                                                                       | National Univ. of Defense Technology                          |          | 11:59-12:07                                                                                                                          | B3.14                                                 |
| Maosong Wang                                                                                                                                    | National Univ. of Defense Technology                          |          | <b>1220</b> <i>Lateral deviation correction control for automatic takeoff roll of civil aircraft based on low visibility</i>         |                                                       |
| Yuxuan Wu                                                                                                                                       | National Univ. of Defense Technology                          |          | Nuo Deng                                                                                                                             | COMAC Shanghai Aircraft Design and Research Institute |
| Xuanying Li                                                                                                                                     | National Univ. of Defense Technology                          |          | Weijie Lyu                                                                                                                           | COMAC Shanghai Aircraft Design and Research Institute |
| Xueyu Du                                                                                                                                        | National Univ. of Defense Technology                          |          | Chang Liu                                                                                                                            | COMAC Shanghai Aircraft Design and Research Institute |
| 11:19-11:27                                                                                                                                     |                                                               | B3.9     | 12:07-12:15                                                                                                                          | B3.15                                                 |
| <b>724</b> <i>Research on LADRC autopilot for aerial guided munitions with hinge moment feedforward compensation</i>                            |                                                               |          |                                                                                                                                      |                                                       |
| Xuanbo Liu                                                                                                                                      | Beijing Institute of Technology                               |          | <b>1632</b> <i>Design of excess deviation alert for localizer and glide slope of civil aircraft</i>                                  |                                                       |
| Qiuqiu Wen                                                                                                                                      | Beijing Institute of Technology                               |          | Na He                                                                                                                                | Shanghai Aircraft Design and Research Institute       |
| Weiwei Li                                                                                                                                       | China Research and Development Academy of Machinery Equipment |          | Ziyan Shao                                                                                                                           | Shanghai Aircraft Design and Research Institute       |
| Yantao Hu                                                                                                                                       | Norinco Group Air Ammunition Research Institute Co., Ltd.,    |          | <b>B4</b> <b>2nd Floor Nanning Room1</b>                                                                                             |                                                       |
| Sheng He                                                                                                                                        | Norinco Group Air Ammunition Research Institute Co., Ltd.,    |          | <b>Safety GNC</b> <b>2 层 南宁厅 1</b>                                                                                                   |                                                       |
| 11:27-11:35                                                                                                                                     |                                                               | B3.10    | Chairs: Yanbin Liu                                                                                                                   |                                                       |
| <b>1233</b> 飞机机动平面控制方法及应用研究                                                                                                                     |                                                               |          |                                                                                                                                      |                                                       |
| Jiabo Feng                                                                                                                                      | Beihang Univ.                                                 |          | 10:15-10:23                                                                                                                          | B4.1                                                  |
| Baicheng Lu                                                                                                                                     | Beihang Univ.                                                 |          | <b>856</b> 垂直起降变体飞行器控制关联的过渡走廊设计                                                                                                      |                                                       |
| Weiqi Li                                                                                                                                        | Beihang Univ.                                                 |          | Zengzhen Zhao                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics         |
| 11:35-11:43                                                                                                                                     |                                                               | B3.11    | Zilong Wang                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics         |
| <b>1007</b> <i>Robust position tracking of the towed cable-drogue system via tangent-type adaptive prescribed performance control</i>           |                                                               |          |                                                                                                                                      |                                                       |
| Jianheng He                                                                                                                                     | Beihang Univ.                                                 |          | Yanbin Liu                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics         |
| Honglun Wang                                                                                                                                    | Beihang Univ.                                                 |          | Boyi Chen                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics         |
| Junfan Zhu                                                                                                                                      | Beihang Univ.                                                 |          | Jun Jia                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics         |
| Jinbai Li                                                                                                                                       | Beihang Univ.                                                 |          | 10:23-10:31                                                                                                                          | B4.2                                                  |
| Zikang Su                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics                 |          | <b>366</b> <i>Trajectory tracking control for autonomous vehicles based on barrier lyapunov function and extended state observer</i> |                                                       |
| 11:43-11:51                                                                                                                                     |                                                               | B3.12    | Juqi Hu                                                                                                                              | Anhui Univ.                                           |
| <b>812</b> <i>Design of a lateral-directional flight control system for transport aircraft based on incremental nonlinear dynamic inversion</i> |                                                               |          |                                                                                                                                      |                                                       |
| Jiawei Xu                                                                                                                                       | Beijing Keeven Aviation Instrument Co.Ltd.                    |          | Yiping Wu                                                                                                                            | Anhui Univ.                                           |
| Song Wang                                                                                                                                       | Beijing Keeven Aviation Instrument Co.Ltd.                    |          | Changyin Sun                                                                                                                         | Anhui Univ.                                           |
| Guanru Zhao                                                                                                                                     | Beijing Keeven Aviation Instrument Co.Ltd.                    |          | Youmin Zhang                                                                                                                         | Concordia Univ.                                       |
| 10:31-10:39                                                                                                                                     |                                                               | B4.3     | <b>1031</b> <i>Gravity compensation-based nonlinear robust control of laser turntable for anti-UAV</i>                               |                                                       |
| Lele Zhang                                                                                                                                      | Beijing Keeven Aviation Instrument Co.Ltd.                    |          | Benfeng Luan                                                                                                                         | Yanshan Univ.                                         |
| Wenchong Sun                                                                                                                                    | Beijing Keeven Aviation Instrument Co.Ltd.                    |          | Junbo Wang                                                                                                                           | Yanshan Univ.                                         |
| 11:51-11:59                                                                                                                                     |                                                               | B3.13    | Xinghua Chen                                                                                                                         | Beihang Univ.                                         |
| <b>726</b> <i>Static position accuracy analysis of civil aircraft primary flight control svstem</i>                                             |                                                               |          |                                                                                                                                      |                                                       |
|                                                                                                                                                 |                                                               |          | Yao Li                                                                                                                               | AVIC. Qing'An Group, Co., Ltd.                        |
|                                                                                                                                                 |                                                               |          | Jing Yao                                                                                                                             | Yanshan Univ.                                         |

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| 10:39-10:47                                                                                                                                             | B4.4                                                   | Telecommunications |
| <b>1360</b> <i>Fault-tolerant control for electro-hydraulic brake system based on fixed-time observer and sliding mode control</i>                      |                                                        | Southeast Univ.    |
| Wenjie Wu                                                                                                                                               | Beihang Univ.                                          |                    |
| Yuwei Zhang                                                                                                                                             | Beihang Univ.                                          |                    |
| Rui Mu                                                                                                                                                  | Beihang Univ.                                          |                    |
| Xingjian Wang                                                                                                                                           | Beihang Univ.                                          |                    |
| Shaoping Wang                                                                                                                                           | Beihang Univ.                                          |                    |
| Xi Wang                                                                                                                                                 | Suzhou Tiantong Weishi Electronic Technology Co., Ltd. |                    |
| 10:47-10:55                                                                                                                                             | B4.5                                                   |                    |
| <b>1402</b> <i>Safe trajectory tracking and obstacle avoidance for UAVs based on UKF and CBF-MPC</i>                                                    |                                                        |                    |
| Aohui Wang                                                                                                                                              | Beihang Univ.                                          |                    |
| Zheng Zhang                                                                                                                                             | Beihang Univ.                                          |                    |
| Xiaoduo Li                                                                                                                                              | Beihang Univ.                                          |                    |
| Yongzhao Hua                                                                                                                                            | Beihang Univ.                                          |                    |
| Xiwang Dong                                                                                                                                             | Beihang Univ.                                          |                    |
| 10:55-11:03                                                                                                                                             | B4.6                                                   |                    |
| <b>295</b> <i>Leader-follower consensus of discrete-time multi-agent systems with dual Markovian switching via mode- and topology-dependent control</i> |                                                        |                    |
| Ziheng Zhou                                                                                                                                             | Jinling Institute of Technology                        |                    |
| Quan Li                                                                                                                                                 | Jiangsu Second Normal Univ.                            |                    |
| Chaolong Zhang                                                                                                                                          | Jinling Institute of Technology                        |                    |
| Rui Dai                                                                                                                                                 | Jiaxing Univ.                                          |                    |
| Xiaojing Ping                                                                                                                                           | Jiangnan Univ.                                         |                    |
| Yaxuan Liu                                                                                                                                              | Jiangsu Second Normal Univ.                            |                    |
| 11:03-11:11                                                                                                                                             | B4.7                                                   |                    |
| <b>825</b> <i>Observer-based distributed prescribed-time control for STL task execution in communication-constrained multi-agent systems</i>            |                                                        |                    |
| Ziyi Wang                                                                                                                                               | Huazhong Univ. of Science and Technology               |                    |
| Wentao Zhang                                                                                                                                            | Huazhong Univ. of Science and Technology               |                    |
| Zhiwei Liu                                                                                                                                              | Huazhong Univ. of Science and Technology               |                    |
| 11:11-11:19                                                                                                                                             | B4.8                                                   |                    |
| <b>1659</b> <i>MPC-RORCA: a decentralized trajectory planning method for multi-robot systems</i>                                                        |                                                        |                    |
| Xiaotong Li                                                                                                                                             | Beijing Institute of Technology                        |                    |
| Pengfei Liu                                                                                                                                             | Beijing Institute of Technology                        |                    |
| 11:19-11:27                                                                                                                                             | B4.9                                                   |                    |
| <b>1166</b> <i>Coordinated motion planning and control for small fixed-wing UAVs in dense environments</i>                                              |                                                        |                    |
| Haozhe Sun                                                                                                                                              | National Univ. of Defense Technology                   |                    |
| Tianqing Liu                                                                                                                                            | The Chinese Armed Police Force Command College         |                    |
| Zhaowei Ma                                                                                                                                              | National Univ. of Defense Technology                   |                    |
| Yifeng Niu                                                                                                                                              | National Univ. of Defense Technology                   |                    |
| 11:27-11:35                                                                                                                                             | B4.10                                                  |                    |
| <b>1531</b> <i>Fixed-time bipartite consensus control of signed digraphs with connectivity preservation</i>                                             |                                                        |                    |
| Qinlang Xu                                                                                                                                              | Nanjing Univ. of Posts and Telecommunications          |                    |
| Huifen Hong                                                                                                                                             | Nanjing Univ. of Posts and Telecommunications          |                    |
| He Wang                                                                                                                                                 | Southeast Univ.                                        |                    |
| 11:35-11:43                                                                                                                                             | B4.11                                                  |                    |
| <b>1298</b> <i>Predefined-time QUAV formation control under input saturation and input quantization</i>                                                 |                                                        |                    |
| Xuyan Liu                                                                                                                                               | Northwestern Polytechnical Univ.                       |                    |
| Chanyuan Ma                                                                                                                                             | Northwestern Polytechnical Univ.                       |                    |
| Yujiang Zhong                                                                                                                                           | Northwestern Polytechnical Univ.                       |                    |
| Ping Li                                                                                                                                                 | Northwestern Polytechnical Univ.                       |                    |
| Jiayi Zhou                                                                                                                                              | Northwestern Polytechnical Univ.                       |                    |
| 11:43-11:51                                                                                                                                             | B4.12                                                  |                    |
| <b>855</b> <i>Prescribed-time consensus for multi-UAV based on prescribed-performance</i>                                                               |                                                        |                    |
| Ruirui Zhang                                                                                                                                            | Northwestern Polytechnical Univ.                       |                    |
| Ban Wang                                                                                                                                                | Northwestern Polytechnical Univ.                       |                    |
| 11:51-11:59                                                                                                                                             | B4.13                                                  |                    |
| <b>1338</b> <i>Reinforcement learning-driven formation control for input-constrained multi-agent networks</i>                                           |                                                        |                    |
| Chunyan Wang                                                                                                                                            | Beijing Institute of Technology                        |                    |
| Yang Fei                                                                                                                                                | Beijing Institute of Technology                        |                    |
| Wei Dong                                                                                                                                                | Beijing Institute of Technology                        |                    |
| Xiang Shi                                                                                                                                               | Tsinghua Univ.                                         |                    |
| Lele Zhang                                                                                                                                              | Beijing Institute of Technology                        |                    |
| Chen Chen                                                                                                                                               | Beijing Institute of Technology                        |                    |
| Fang Deng                                                                                                                                               | Beijing Institute of Technology                        |                    |
| 11:59-12:07                                                                                                                                             | B4.14                                                  |                    |
| <b>124</b> <i>Three-dimensional predefined-time cooperative guidance with field-of-view constraints</i>                                                 |                                                        |                    |
| Jiedong He                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| Meng Yu                                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| 12:07-12:15                                                                                                                                             | B4.15                                                  |                    |
| <b>681</b> <i>基于扩维正系统的折展机翼变负载预设性能控制</i>                                                                                                                 |                                                        |                    |
| Jiayuan Gu                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| Boyi Chen                                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| Yifan Han                                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| Yanbin Liu                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| Jinbao Chen                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics          |                    |
| <b>B5</b>                                                                                                                                               | <b>2nd Floor Nanning Room2</b>                         |                    |
| <b>Flight GNC</b>                                                                                                                                       | <b>2 层 南宁厅 2</b>                                       |                    |
| Chairs: Zikang Su                                                                                                                                       |                                                        |                    |
| 10:15-10:23                                                                                                                                             | B5.1                                                   |                    |
| <b>1562</b> <i>End-to-end autonomous flight of quadrotor UAVs based on attention fusion-SAC</i>                                                         |                                                        |                    |
| Yuanshun Wang                                                                                                                                           | Shanghai Maritime Univ.                                |                    |
| Guangyu Zhang                                                                                                                                           | Shenyang Institute of Automation, CAS                  |                    |
| Bo Li                                                                                                                                                   | Shanghai Maritime Univ.                                |                    |
| 10:23-10:31                                                                                                                                             | B5.2                                                   |                    |
| <b>373</b> <i>Fixed-time distributed attitude tracking control of multiple QUAVs without angular velocity sensors</i>                                   |                                                        |                    |

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|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Meng Zhang                                                                                                                   | Southeast Univ.                               | Wenkun Gu                                                                                                                                          | Air Force Engineering Univ.                                                 |
| Linan Wang                                                                                                                   | Beijing Institute of Technology               | Qiang Miao                                                                                                                                         | Air Force Engineering Univ.                                                 |
| Huixiong Wang                                                                                                                | Southeast Univ.                               | Chunlei Pang                                                                                                                                       | Air Force Engineering Univ.                                                 |
| Huian Yan                                                                                                                    | LiaoNing Technical Univ.                      | 11:35-11:43                                                                                                                                        | B5.11                                                                       |
| 10:31-10:39                                                                                                                  | B5.3                                          | <b>397</b> <i>Anti-disturbance air-dropped control of the flying wing UAV from a mother carrier</i>                                                |                                                                             |
| <b>493</b> <i>Collision-free trajectory tracking control of quadrotors</i>                                                   |                                               | Zijian Zhou                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics                               |
| Zhuo Liu                                                                                                                     | Southeast Univ.                               | Xinru Wang                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics                               |
| Linan Wang                                                                                                                   | Beijing Institute of Technology               | Jinjin Wan                                                                                                                                         | AVIC Luoyang Institute of Electro-optical Equipment                         |
| Huian Yan                                                                                                                    | LiaoNing Technical Univ.,                     | Chaoqiang Zhao                                                                                                                                     | AVIC Luoyang Institute of Electro-optical Equipment                         |
| Jing Nie                                                                                                                     | Beijing Institute of Technology               | ChangHui Jiang                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics                               |
| 10:39-10:47                                                                                                                  | B5.4                                          | Zikang Su                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics                               |
| <b>273</b> <i>Nonlinear control of tiltrotor aircraft based on INDI and RBF neural network</i>                               |                                               | 11:43-11:51                                                                                                                                        | B5.12                                                                       |
| Xinyu Li                                                                                                                     | Tianjin Univ.                                 | <b>675</b> <i>Attitude control of flying boom under composite aerodynamic disturbances</i>                                                         |                                                                             |
| Bin Xian                                                                                                                     | Tianjin Univ.                                 | Zhihua Xiong                                                                                                                                       | Beihang Univ.                                                               |
| 10:47-10:55                                                                                                                  | B5.5                                          | Honglun Wang                                                                                                                                       | Beihang Univ.                                                               |
| <b>792</b> <i>基于代理建模与降维评价的变体旋翼飞行器自适应决策</i>                                                                                   |                                               | Junfan Zhu                                                                                                                                         | Beihang Univ.                                                               |
| Xuqiao Wang                                                                                                                  | Civil Aviation Univ. of China                 | Jinbai Li                                                                                                                                          | Beihang Univ.                                                               |
| Menghao Duan                                                                                                                 | Civil Aviation Univ. of China                 | Zikang Su                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics                               |
| Qijun Luo                                                                                                                    | Civil Aviation Univ. of China                 | 11:51-11:59                                                                                                                                        | B5.13                                                                       |
| 10:55-11:03                                                                                                                  | B5.6                                          | <b>834</b> <i>Coordinated landing control for a VTOL UAV with lifting surface under terminal attitude constraints</i>                              |                                                                             |
| <b>787</b> <i>Research on forward speed tracking of solar-powered UAV based on terminal sliding mode control</i>             |                                               | Yifang Fu                                                                                                                                          | Northwestern Polytechnical Univ.                                            |
| Heng Li                                                                                                                      | Naval Aviation Univ.                          | Lin Li                                                                                                                                             | Navigation and Control Technology Research Institute of Norinco Group       |
| Lingling Wang                                                                                                                | Naval Aviation Univ.                          | Zhiqi Qi                                                                                                                                           | Northwest Regional Air Traffic Management Bureau of Civil Aviation of China |
| Yuliang Cheng                                                                                                                | Naval Aviation Univ.                          | Bufan Chang                                                                                                                                        | Northwestern Polytechnical Univ.                                            |
| Junwei Lei                                                                                                                   | Naval Aviation Univ.                          | Ban Wang                                                                                                                                           | Northwestern Polytechnical Univ.                                            |
| 11:03-11:11                                                                                                                  | B5.7                                          | 11:59-12:07                                                                                                                                        | B5.14                                                                       |
| <b>1390</b> <i>Bridging semantics and dynamics: a decoupled LLM-RL framework for UAV target search</i>                       |                                               | <b>837</b> <i>ESO-based prescribed-time control of canard rotor/wing UAV with asymmetrical performance constraints under external disturbances</i> |                                                                             |
| Jiankun Guo                                                                                                                  | National Univ. of Defense Technology          | Huimin Zhao                                                                                                                                        | Northwestern Polytechnical Univ.                                            |
| Zhaowei Ma                                                                                                                   | National Univ. of Defense Technology          | Ban Wang                                                                                                                                           | Northwestern Polytechnical Univ.                                            |
| Weiqi Sun                                                                                                                    | National Univ. of Defense Technology          | Ni Li                                                                                                                                              | Northwestern Polytechnical Univ.                                            |
| Yifeng Niu                                                                                                                   | National Univ. of Defense Technology          | 12:07-12:15                                                                                                                                        | B5.15                                                                       |
| 11:11-11:19                                                                                                                  | B5.8                                          | <b>896</b> <i>Autonomous flight control of the bird-inspired unmanned aircraft without a vertical tail</i>                                         |                                                                             |
| <b>1397</b> <i>Ellipsoidal NMPC for quadrotor obstacle avoidance in cluttered dynamic environments</i>                       |                                               | Tingting Wang                                                                                                                                      | Beijing Keeven Aviation Instrument Co. Ltd.                                 |
| Zhenzhao Wang                                                                                                                | National Univ. of Defense Technology          | Xiuyu He                                                                                                                                           | Univ. of Science and Technology Beijing                                     |
| Xudong Liu                                                                                                                   | National Univ. of Defense Technology          | Wei He                                                                                                                                             | Univ. of Science and Technology Beijing                                     |
| Su Cao                                                                                                                       | National Univ. of Defense Technology          |                                                                                                                                                    |                                                                             |
| Li Yu                                                                                                                        | National Univ. of Defense Technology          |                                                                                                                                                    |                                                                             |
| Xiangke Wang                                                                                                                 | National Univ. of Defense Technology          |                                                                                                                                                    |                                                                             |
| 11:19-11:27                                                                                                                  | B5.9                                          |                                                                                                                                                    |                                                                             |
| <b>1501</b> <i>Robust intelligent attitude tracking of UAVs via integrated sliding mode and adaptive dynamic programming</i> |                                               |                                                                                                                                                    |                                                                             |
| Kun Zhou                                                                                                                     | Xi'an Technological Univ.                     |                                                                                                                                                    |                                                                             |
| Li Yu                                                                                                                        | National Univ. of Defense Technology          |                                                                                                                                                    |                                                                             |
| Zeng Wang                                                                                                                    | Xi'an Technological Univ.                     |                                                                                                                                                    |                                                                             |
| 11:27-11:35                                                                                                                  | B5.10                                         |                                                                                                                                                    |                                                                             |
| <b>401</b> <i>Six-DOF tracking control for non-cooperative UAVs with bearing-only measurements</i>                           |                                               |                                                                                                                                                    |                                                                             |
| Peiran Li                                                                                                                    | Air Force Engineering Univ.                   |                                                                                                                                                    |                                                                             |
| Lei Xie                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics |                                                                                                                                                    |                                                                             |
| Dian Wang                                                                                                                    | Shanghai Satellite Engineering Astronautics   |                                                                                                                                                    |                                                                             |
| Hao Wu                                                                                                                       | Air Force Engineering Univ.                   |                                                                                                                                                    |                                                                             |

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|-------------------------|--------------------------------|
| <b>B6</b>               | <b>2nd Floor Nanning Room3</b> |
| <b>Optimization GNC</b> | <b>2 层 南宁厅 3</b>               |

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|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--|
| Chairs: Yu Liang                                                                                                                               |                                                        |  |
| 10:15-10:23                                                                                                                                    | B6.1                                                   |  |
| <b>1249</b> <i>GPGS: continuous-time Gaussian process trajectory optimization in 3D Gaussian Splatting maps</i>                                |                                                        |  |
| Ziyang Zuo                                                                                                                                     | Shanghai Univ.                                         |  |
| Guoxiang Zhao                                                                                                                                  | Shanghai Univ.                                         |  |
| Xiaoqiang Ren                                                                                                                                  | Shanghai Univ.                                         |  |
| 10:23-10:31                                                                                                                                    | B6.2                                                   |  |
| <b>852</b> <i>Customized ADMM approach to joint observation and transmission scheduling in Earth observation satellite networks</i>            |                                                        |  |
| Shibo Chen                                                                                                                                     | Sichuan Univ.                                          |  |
| Bin Li                                                                                                                                         | Sichuan Univ.                                          |  |
| 10:31-10:39                                                                                                                                    | B6.3                                                   |  |
| <b>1634</b> <i>Coarse-to-fine trajectory prediction for UAV air combat via conditional diffusion</i>                                           |                                                        |  |
| Dingyuan Zhang                                                                                                                                 | Beihang Univ.                                          |  |
| Gang Xie                                                                                                                                       | Beihang Univ.                                          |  |
| Ke Li                                                                                                                                          | Beihang Univ.                                          |  |
| Huaxin Qiu                                                                                                                                     | Beihang Univ.                                          |  |
| Yangzhu Wang                                                                                                                                   | Beihang Univ.                                          |  |
| 10:39-10:47                                                                                                                                    | B6.4                                                   |  |
| <b>927</b> <i>A hierarchical reinforcement learning framework with graph convolutional networks for resilient network topology restoration</i> |                                                        |  |
| Yuanhao Ye                                                                                                                                     | Beijing Institute of Technology                        |  |
| Yang Xu                                                                                                                                        | Beihang Univ.                                          |  |
| Yu Liang                                                                                                                                       | Beijing Univ. of Technology                            |  |
| Xiaolin Ai                                                                                                                                     | Institute of Automation, CAS                           |  |
| 10:47-10:55                                                                                                                                    | B6.5                                                   |  |
| <b>892</b> <i>金属微半球谐振陀螺全角模式解耦控制方法</i>                                                                                                          |                                                        |  |
| Zhuorui Yang                                                                                                                                   | Beijing Institute of Technology                        |  |
| Kai Shen                                                                                                                                       | Beijing Institute of Technology                        |  |
| Zhengyu Wu                                                                                                                                     | Beijing Institute of Technology                        |  |
| Zuwei Yang                                                                                                                                     | Beijing Institute of Technology                        |  |
| Jiahe Zhang                                                                                                                                    | Beijing Institute of Technology                        |  |
| 10:55-11:03                                                                                                                                    | B6.6                                                   |  |
| <b>900</b> <i>Integrated closed-loop vector NV magnetometer</i>                                                                                |                                                        |  |
| Jinjie Wang                                                                                                                                    | North Univ. of China                                   |  |
| Xuanhui Ren                                                                                                                                    | North Univ. of China                                   |  |
| Weibing Li                                                                                                                                     | North Univ. of China                                   |  |
| Wenqian Jia                                                                                                                                    | North Univ. of China                                   |  |
| Mingchao Li                                                                                                                                    | North Univ. of China                                   |  |
| Jiayuan Fu                                                                                                                                     | North Univ. of China                                   |  |
| Doudou Zheng                                                                                                                                   | Taiyuan Institute of Technology                        |  |
| Zongmin Ma                                                                                                                                     | North Univ. of China                                   |  |
| 11:03-11:11                                                                                                                                    | B6.7                                                   |  |
| <b>1691</b> <i>上抛式四脉冲冷原子陀螺仪中的高精度角度对准技术研究</i>                                                                                                   |                                                        |  |
| Keixiao Niu                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |  |
| Yuchen Wang                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute |  |
| Yuanzheng Liu                                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute |  |
| Weiqi Chen                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |  |
| 11:11-11:19                                                                                                                                    | B6.8                                                   |  |
| <b>1018</b> <i>Research on incremental dynamic inversion longitudinal control method for STOVL UAVs oriented to short rolling landing</i>      |                                                        |  |
|                                                                                                                                                |                                                        |  |
| Shaoze Huo                                                                                                                                     | Dalian Univ. of Technology                             |  |
| Bin Wang                                                                                                                                       | AVIC Chinese Flight Test Establishment                 |  |
| Qingfeng Zhao                                                                                                                                  | Dalian Univ. of Technology                             |  |
| Ming Yan                                                                                                                                       | Dalian Univ. of Technology                             |  |
| Kai Liu                                                                                                                                        | Dalian Univ. of Technology                             |  |
| 11:19-11:27                                                                                                                                    | B6.9                                                   |  |
| <b>428</b> <i>Optimal sensor placement for bearing-only target localization with prior information</i>                                         |                                                        |  |
| Kunzhong Miao                                                                                                                                  | National Univ. of Defense Technology                   |  |
| Hongbo Yu                                                                                                                                      | National Univ. of Defense Technology                   |  |
| Huangzhi Yu                                                                                                                                    | National Univ. of Defense Technology                   |  |
| Chang Wang                                                                                                                                     | National Univ. of Defense Technology                   |  |
| Jiangyan He                                                                                                                                    | Army Engineering Univ. of the PLA                      |  |
| Yifeng Niu                                                                                                                                     | National Univ. of Defense Technology                   |  |
| 11:27-11:35                                                                                                                                    | B6.10                                                  |  |
| <b>1436</b> <i>微纳卫星扩频通信系统设计与验证</i>                                                                                                             |                                                        |  |
| Hangsong Zhao                                                                                                                                  | Harbin Institute of Technology                         |  |
| Jian Chen                                                                                                                                      | Harbin Institute of Technology                         |  |
| Xueqin Chen                                                                                                                                    | Harbin Institute of Technology                         |  |
| Shi Qiu                                                                                                                                        | Harbin Institute of Technology                         |  |
| Fan Wu                                                                                                                                         | Harbin Institute of Technology                         |  |
| Jinsheng Guo                                                                                                                                   | Harbin Institute of Technology                         |  |
| 11:35-11:43                                                                                                                                    | B6.11                                                  |  |
| <b>972</b> <i>Investigation of the effects of surface protuberances on angle-of-attack measurements in air data systems</i>                    |                                                        |  |
| Saihu Pu                                                                                                                                       | AVIC Chengdu Aircraft Design and Research Institute    |  |
| Shuangshuang Yang                                                                                                                              | AVIC Chengdu Aircraft Design and Research Institute    |  |
| Nan Zhu                                                                                                                                        | AVIC Chengdu Aircraft Design and Research Institute    |  |
| 11:43-11:51                                                                                                                                    | B6.12                                                  |  |
| <b>985</b> <i>Transonic static pressure jump in pitot tubes: mechanism and correction</i>                                                      |                                                        |  |
| Jie Liu                                                                                                                                        | AVIC Taiyuan Aero-Instruments Co., Ltd.                |  |
| Wenjun Chen                                                                                                                                    | AVIC Taiyuan Aero-Instruments Co., Ltd.                |  |
| Changan Zhang                                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute    |  |
| Shuangshuang Yang                                                                                                                              | AVIC Chengdu Aircraft Design and Research Institute    |  |
| 11:51-11:59                                                                                                                                    | B6.13                                                  |  |
| <b>990</b> <i>Feasibility assessment method for ADS algorithm and sensor layout</i>                                                            |                                                        |  |
| Shuangshuang Yang                                                                                                                              | AVIC Chengdu Aircraft Design and Research Institute    |  |
| Saihu Pu                                                                                                                                       | AVIC Chengdu Aircraft Design and Research Institute    |  |
| Deming Deng                                                                                                                                    | AVIC Chengdu Aircraft Design and Research Institute    |  |
| 11:59-12:07                                                                                                                                    | B6.14                                                  |  |
| <b>992</b> <i>Study of pressure measurement errors induced by temperature gradients in sensor tubing</i>                                       |                                                        |  |
| Zhongyong Zou                                                                                                                                  | AVIC Chengdu Aircraft Design and Research Institute    |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Changan Zhang                                                                                                                                | AVIC Chengdu Aircraft Design and Research Institute                                |                                                                                                                               | and Technology on Integrated Technology Control                                    |
| Shuangshuang Yang                                                                                                                            | AVIC Chengdu Aircraft Design and Research Institute                                | Lulu Xue                                                                                                                      | National Key Laboratory of Science and Technology on Integrated Technology Control |
| 12:07-12:15                                                                                                                                  | B6.15                                                                              | Qiang Chen                                                                                                                    | National Key Laboratory of Science and Technology on Integrated Technology Control |
| <b>1496 Health-state evaluation and adaptive fusion method for dual-redundant IMUs</b>                                                       |                                                                                    |                                                                                                                               |                                                                                    |
| Dongyuan Liu                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                                      | 10:55-11:03                                                                                                                   | B7.6                                                                               |
| Zijun He                                                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics                                      | <b>1089 Dual-path automatic planning for UAV swarm combat scheme simulation: A LLM-based document-to-simulation framework</b> |                                                                                    |
| Rongbing Li                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics                                      | Wei Lu                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Wenxuan Wang                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                                      | Jinzhaio Zhang                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute                             |
| <b>B7 2nd Floor Longsheng Room</b>                                                                                                           |                                                                                    | Liang Yu                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute                             |
| <b>Reliable GNC 2 层 龙胜厅</b>                                                                                                                  |                                                                                    | 11:03-11:11                                                                                                                   | B7.7                                                                               |
| Chairs: Xiaolong Chen                                                                                                                        |                                                                                    | <b>1179 Airflow angle estimation for aircraft air data systems using EKF and complementary filtering</b>                      |                                                                                    |
| 10:15-10:23                                                                                                                                  | B7.1                                                                               | Hengyu Liu                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute                             |
| <b>778 Structured task conditioning for visuomotor control in robust dual-arm manipulation</b>                                               |                                                                                    | Yuelong Ma                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Long He                                                                                                                                      | Tsinghua Univ.                                                                     | Xiaolong Chen                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Mengjin Qu                                                                                                                                   | Tsinghua Univ.                                                                     | Ning Zhang                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Qing Li                                                                                                                                      | Tsinghua Univ.                                                                     | Lulu Xue                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute                             |
| 10:23-10:31                                                                                                                                  | B7.2                                                                               | 11:11-11:19                                                                                                                   | B7.8                                                                               |
| <b>794 Command reshaping envelope protection for V-tail UAVs based on adaptive virtual barriers</b>                                          |                                                                                    | <b>1293 Natural language-driven four-dimensional spatiotemporal path planning method for unmanned aerial vehicles</b>         |                                                                                    |
| Haofeng Yan                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics                                      | Xinzhe Lei                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Panpan Xiong                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                                      | Liang Yu                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Shouzhao Sheng                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics                                      | Xiaolong Chen                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute                             |
| 10:31-10:39                                                                                                                                  | B7.3                                                                               | 11:19-11:27                                                                                                                   | B7.9                                                                               |
| <b>987 Physical safety boundary evaluation and feedforward-feedback composite control for 3D trajectory tracking under wind disturbances</b> |                                                                                    | <b>429 Geometric-constraint-assisted intelligent trajectory replanning for conflict avoidance</b>                             |                                                                                    |
| Ziang Wang                                                                                                                                   | Tsinghua Univ.                                                                     | Pengpeng Guo                                                                                                                  | Tsinghua Univ.                                                                     |
| Pengliang Che                                                                                                                                | Tsinghua Univ.                                                                     | Leibin Yang                                                                                                                   | Aviation Univ. of Air Force                                                        |
| Chaoran Hu                                                                                                                                   | Tsinghua Univ.                                                                     | Shihong Li                                                                                                                    | Tsinghua Univ.                                                                     |
| Mengjin Qu                                                                                                                                   | Tsinghua Univ.                                                                     | Mengjin Qu                                                                                                                    | Tsinghua Univ.                                                                     |
| Qing Li                                                                                                                                      | Tsinghua Univ.                                                                     | Qing Li                                                                                                                       | Tsinghua Univ.                                                                     |
| 10:39-10:47                                                                                                                                  | B7.4                                                                               | 11:27-11:35                                                                                                                   | B7.10                                                                              |
| <b>1044 End-to-end text-to-voxel generation for autonomous UAV navigation</b>                                                                |                                                                                    | <b>284 Research on proactive interactive agents for multi-UAV manipulation based on natural language</b>                      |                                                                                    |
| Xiaolong Chen                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute                             | Jia Li                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Wei Lu                                                                                                                                       | National Key Laboratory of Integrated Control Technology of Aircraft               | Yan Liu                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute                             |
| Qing Li                                                                                                                                      | Tsinghua Univ.                                                                     | Xiaolong Chen                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute                             |
| 10:47-10:55                                                                                                                                  | B7.5                                                                               |                                                                                                                               |                                                                                    |
| <b>1059 Optimal selection method for feedforward control commands of tiltrotor aircraft based on transition trajectory</b>                   |                                                                                    |                                                                                                                               |                                                                                    |
| Wenhao Wang                                                                                                                                  | National Key Laboratory of Science and Technology on Integrated Technology Control |                                                                                                                               |                                                                                    |
| Ning Zhang                                                                                                                                   | National Key Laboratory of Science                                                 |                                                                                                                               |                                                                                    |

|                                                                                                                                              |                                                                 |                                |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------|--|
| 11:35-11:43                                                                                                                                  |                                                                 | B7.11                          |  |
| <b>623</b> <i>Disturbance rejection flight control for tiltrotor aircraft in horizontal mode based on LESO-SMC</i>                           |                                                                 |                                |  |
| Chenrui Qian                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| Yanfeng Liu                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| Panpan Xiong                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| Shouzhao Sheng                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| 11:43-11:51                                                                                                                                  |                                                                 | B7.12                          |  |
| <b>691</b> <i>Local receptive fields based fuzzy extreme learning machine</i>                                                                |                                                                 |                                |  |
| Yan Liu                                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute          |                                |  |
| Jia Li                                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute          |                                |  |
| Wenqian Zhang                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute          |                                |  |
| 11:51-11:59                                                                                                                                  |                                                                 | B7.13                          |  |
| <b>793</b> <i>Helicopter attitude control based on DSM-ADRC</i>                                                                              |                                                                 |                                |  |
| Cheng Yang                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| Panpan Xiong                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| Shouzhao Sheng                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics                   |                                |  |
| 11:59-12:07                                                                                                                                  |                                                                 | B7.14                          |  |
| <b>1424</b> <i>Aircraft-guided relation-aware open-vocabulary object detection for UAV drogue recognition</i>                                |                                                                 |                                |  |
| Haoming Wang                                                                                                                                 | Northwestern Polytechnical Univ.                                |                                |  |
| Qi Zhou                                                                                                                                      | Tianchuang Aviation Navigation and Control Technology Co., Ltd. |                                |  |
| Dong Zhang                                                                                                                                   | Northwestern Polytechnical Univ.                                |                                |  |
| Jinjiang Wang                                                                                                                                | Tianchuang Aviation Navigation and Control Technology Co., Ltd. |                                |  |
| Hao Li                                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute          |                                |  |
| Yazhou Yue                                                                                                                                   | Tianchuang Aviation Navigation and Control Technology Co., Ltd. |                                |  |
| <b>B8</b>                                                                                                                                    |                                                                 | <b>2nd Floor Guilin Room 1</b> |  |
| <b>Aerospace GNC</b>                                                                                                                         |                                                                 | <b>2 层 桂林厅 1</b>               |  |
| Chairs: Hongshi Lu                                                                                                                           |                                                                 |                                |  |
| 10:15-10:23                                                                                                                                  |                                                                 | B8.1                           |  |
| <b>339</b> <i>Neural network model reference adaptive control for coaxial high-speed helicopters</i>                                         |                                                                 |                                |  |
| Gao Shu                                                                                                                                      | Northwestern Polytechnical Univ.                                |                                |  |
| Aijun Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| 10:23-10:31                                                                                                                                  |                                                                 | B8.2                           |  |
| <b>186</b> <i>Non-singular terminal sliding mode control for multi-UAV cooperative slung-load systems with APF-based obstacle avoidance</i>  |                                                                 |                                |  |
| Chenyang She                                                                                                                                 | Northwestern Polytechnical Univ.                                |                                |  |
| Changqing Wang                                                                                                                               | Northwestern Polytechnical Univ.                                |                                |  |
| Hongshi Lu                                                                                                                                   | Northwestern Polytechnical Univ.                                |                                |  |
| Aijun Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| 10:31-10:39                                                                                                                                  |                                                                 | B8.3                           |  |
| <b>309</b> <i>Orbit rendezvous guidance for multiple spacecraft near the Earth-Moon libration point L1 based on invariant manifolds</i>      |                                                                 |                                |  |
| Hanyu Li                                                                                                                                     | Samara National Research Univ.                                  |                                |  |
| Olga L. Starinova                                                                                                                            | Samara National Research Univ.                                  |                                |  |
| Chongrui Du                                                                                                                                  | Northwestern Polytechnical Univ.                                |                                |  |
| Jingze Yu                                                                                                                                    | Northwestern Polytechnical Univ.                                |                                |  |
| 10:39-10:47                                                                                                                                  |                                                                 | B8.4                           |  |
| <b>598</b> <i>Prescribed performance control of space tether system for maneuvering between spatial spinning orientations</i>                |                                                                 |                                |  |
| Kexin Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Changqing Wang                                                                                                                               | Northwestern Polytechnical Univ.                                |                                |  |
| Hongshi Lu                                                                                                                                   | Northwestern Polytechnical Univ.                                |                                |  |
| Aijun Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Pavel Fadeenkov                                                                                                                              | Samara National Research Univ.                                  |                                |  |
| 10:47-10:55                                                                                                                                  |                                                                 | B8.5                           |  |
| <b>600</b> <i>Agile satellite formation earth observation task planning using a spatiotemporal heuristic progressive insertion algorithm</i> |                                                                 |                                |  |
| Jiaqi Mu                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Yujie Si                                                                                                                                     | Beijing Aerospace Automatic Control Institute                   |                                |  |
| Yong Guo                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Aijun Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Changqing Wang                                                                                                                               | Northwestern Polytechnical Univ.                                |                                |  |
| Hongshi Lu                                                                                                                                   | Northwestern Polytechnical Univ.                                |                                |  |
| 10:55-11:03                                                                                                                                  |                                                                 | B8.6                           |  |
| <b>609</b> <i>Research on tight formation maneuvering flight control for heterogeneous aircraft</i>                                          |                                                                 |                                |  |
| Yunpeng Cai                                                                                                                                  | Northwestern Polytechnical Univ.                                |                                |  |
| Ameng Xu                                                                                                                                     | AVIC First Aircraft Design and Research Institute               |                                |  |
| Yu Li                                                                                                                                        | The Hong Kong Polytechnic Univ.                                 |                                |  |
| Xiaobo Qu                                                                                                                                    | Northwestern Polytechnical Univ.                                |                                |  |
| Xiaoxiong Liu                                                                                                                                | Northwestern Polytechnical Univ.                                |                                |  |
| 11:03-11:11                                                                                                                                  |                                                                 | B8.7                           |  |
| <b>611</b> <i>Research on topology reconfiguration control methods for transport aircraft in close formation</i>                             |                                                                 |                                |  |
| Zongwei Chai                                                                                                                                 | Northwestern Polytechnical Univ.                                |                                |  |
| Yu Li                                                                                                                                        | The Hong Kong Polytechnic Univ.                                 |                                |  |
| Xinhui Zhang                                                                                                                                 | AVIC First Aircraft Design and Research Institute               |                                |  |
| Xiaobo Qu                                                                                                                                    | Northwestern Polytechnical Univ.                                |                                |  |
| Xiaoxiong Liu                                                                                                                                | Northwestern Polytechnical Univ.                                |                                |  |
| 11:11-11:19                                                                                                                                  |                                                                 | B8.8                           |  |
| <b>859</b> <i>Trajectory optimization for constructing artificial gravity with spinning tether system</i>                                    |                                                                 |                                |  |
| Deming Du                                                                                                                                    | Northwestern Polytechnical Univ.                                |                                |  |
| Hongshi Lu                                                                                                                                   | Northwestern Polytechnical Univ.                                |                                |  |
| Changqing Wang                                                                                                                               | Northwestern Polytechnical Univ.                                |                                |  |
| Aijun Li                                                                                                                                     | Northwestern Polytechnical Univ.                                |                                |  |
| Vladimir Saetchnikov                                                                                                                         | Belarusian State Univ.                                          |                                |  |
| 11:19-11:27                                                                                                                                  |                                                                 | B8.9                           |  |
| <b>265</b> 面向仿生航向估计的圆周变分贝叶斯跟踪滤波算法                                                                                                            |                                                                 |                                |  |
| Kunlun Chen                                                                                                                                  | North Univ. of China                                            |                                |  |
| Xindong Wu                                                                                                                                   | North Univ. of China                                            |                                |  |
| Chong Shen                                                                                                                                   | North Univ. of China                                            |                                |  |
| 11:27-11:35                                                                                                                                  |                                                                 | B8.10                          |  |
| <b>1063</b> <i>Practical prescribed-time tracking control for small tandem-</i>                                                              |                                                                 |                                |  |

*rotor UAV formation*

|                |                                  |
|----------------|----------------------------------|
| Xiaolu Li      | Northwestern Polytechnical Univ. |
| Changqing Wang | Northwestern Polytechnical Univ. |
| Hongshi Lu     | Northwestern Polytechnical Univ. |
| Yong Guo       | Northwestern Polytechnical Univ. |
| Aijun Li       | Northwestern Polytechnical Univ. |

11:35-11:43 B8.11

**1399** *An active stabilization approach for vibration suppression of electrodynamic tether system*

|                |                                  |
|----------------|----------------------------------|
| Yanfang Li     | Yulin Univ.                      |
| Aijun Li       | Northwestern Polytechnical Univ. |
| Changqing Wang | Northwestern Polytechnical Univ. |
| Hongshi Lu     | Northwestern Polytechnical Univ. |

11:43-11:51 B8.12

**1050** *Fast terminal sliding mode control of space tug for de-orbiting debris from Geostationary orbit*

|                |                                  |
|----------------|----------------------------------|
| Xinhang Zheng  | Northwestern Polytechnical Univ. |
| Changqing Wang | Northwestern Polytechnical Univ. |
| Hongshi Lu     | Northwestern Polytechnical Univ. |
| Aijun Li       | Northwestern Polytechnical Univ. |
| Olga Starinova | Samara National Research Univ.   |

11:51-11:59 B8.13

**732** *Integrated orbit-attitude control for spinning tether system in fly-around observation mission*

|                |                                  |
|----------------|----------------------------------|
| Yunchen He     | Northwestern Polytechnical Univ. |
| Changqing wang | Northwestern Polytechnical Univ. |
| Hongshi Lu     | Northwestern Polytechnical Univ. |
| Aijun Li       | Northwestern Polytechnical Univ. |
| Dmitry Elenev  | Samara National Research Univ.   |

11:59-12:07 B8.14

**500** *Adaptive sliding mode control and envelope protection for coaxial compound helicopters*

|             |                                  |
|-------------|----------------------------------|
| Zuo Li      | Northwestern Polytechnical Univ. |
| Aijun Li    | Northwestern Polytechnical Univ. |
| Kangzhe Shi | Northwestern Polytechnical Univ. |
| Yingke Liu  | Northwestern Polytechnical Univ. |

**B9** **2nd Floor Guilin Room 2**

**Automatic GNC** **2 层 桂林厅 2**

Chairs: Kai Liu

10:15-10:23 B9.1

**136** *Design and simulation of automatic flight control system for future autonomous air combat scene*

|             |                                                      |
|-------------|------------------------------------------------------|
| Wenzhe Li   | AVIC Shenyang Aircraft Design and Research Institute |
| Yanguo Hu   | AVIC Shenyang Aircraft Design and Research Institute |
| Fangliu Jin | AVIC Shenyang Aircraft Design and Research Institute |
| Yan Ding    | AVIC Shenyang Aircraft Design and Research Institute |

10:23-10:31 B9.2

**139** *Research on carrier landing with multiple control surfaces allocation based on eigenstructure assignment*

|              |                                                      |
|--------------|------------------------------------------------------|
| Xiulin Zhang | AVIC Shenyang Aircraft Design and Research Institute |
| Hao Yun      | AVIC Shenyang Aircraft Design and Research Institute |

|               |                                                      |
|---------------|------------------------------------------------------|
| Xiaolei Qu    | Northwestern Polytechnical Univ.                     |
| Hao Chen      | AVIC Shenyang Aircraft Design and Research Institute |
| Kecheng Li    | Northwestern Polytechnical Univ.                     |
| Xiaoxiong Liu | Northwestern Polytechnical Univ.                     |

10:31-10:39 B9.3

**368** *Research on fighter aircraft assisted flight control based on dynamic human-machine control authority allocation*

|             |                                                      |
|-------------|------------------------------------------------------|
| Ran Liu     | Beihang Univ.                                        |
| Yanguo Hu   | Beihang Univ.                                        |
| Yuxiang Qiu | AVIC Shenyang Aircraft Design and Research Institute |
| Yifan Qi    | AVIC Shenyang Aircraft Design and Research Institute |
| Di Wu       | AVIC Shenyang Aircraft Design and Research Institute |
| Jinyi Song  | AVIC Shenyang Aircraft Design and Research Institute |

10:39-10:47 B9.4

**539** *Phase-dependent integrated NMPC framework for drag-profile-based entry guidance*

|             |                                      |
|-------------|--------------------------------------|
| Xin Wen     | National Univ. of Defense Technology |
| Xiangyu Yan | National Univ. of Defense Technology |
| Fansen Zhou | National Univ. of Defense Technology |
| Wei Zheng   | National Univ. of Defense Technology |

10:47-10:55 B9.5

**571** *Research on distributed propulsion control allocation for dynamic and energy efficiency co-optimization*

|               |                                                      |
|---------------|------------------------------------------------------|
| Zhechen Liu   | Dalian Univ. of Technology                           |
| Weining Huang | AVIC Shenyang Aircraft Design and Research Institute |
| YongZhen Liu  | AVIC Shenyang Aircraft Design and Research Institute |
| Kai Liu       | Dalian Univ. of Technology                           |
| Qingfeng Zhao | Dalian Univ. of Technology                           |
| Ming Yan      | Dalian Univ. of Technology                           |
| Junyi Duan    | Dalian Univ. of Technology                           |
| Zijun Gu      | Dalian Univ. of Technology                           |
| Yunlong Zhao  | Dalian Univ. of Technology                           |

10:55-11:03 B9.6

**710** *Robust model predictive control for hypersonic vehicles considering active inlet protection*

|             |                                                     |
|-------------|-----------------------------------------------------|
| Yiqiang Hou | Dalian Univ. of Technology                          |
| Qiang Min   | AVIC Chengdu Aircraft Design and Research Institute |
| Guan Wang   | Dalian Univ. of Technology                          |
| Xi Cheng    | AVIC Chengdu Aircraft Design and Research Institute |
| Yu Zhang    | AVIC Chengdu Aircraft Design and Research Institute |

11:03-11:11 B9.7

**747** *Stability augmentation control via thrust vector: an adaptive control method based on hinge moment estimation for thrust observation*

|              |                                                      |
|--------------|------------------------------------------------------|
| Heqi Li      | AVIC Shenyang Aircraft Design and Research Institute |
| Shipeng Wang | AVIC Shenyang Aircraft Design                        |

|                                                                                                                                                                               |                                      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--|
|                                                                                                                                                                               | and Research Institute               |  |
| Yeguang Wang                                                                                                                                                                  | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Ning Wang                                                                                                                                                                     | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Kai Liu                                                                                                                                                                       | Dalian Univ. of Technology           |  |
| Qingfeng Zhao                                                                                                                                                                 | Dalian Univ. of Technology           |  |
| 11:11-11:19                                                                                                                                                                   | B9.8                                 |  |
| <b>785</b> 基于 <i>MASD</i> 和 <i>AI</i> 的飞控智能软件开发方法研究                                                                                                                           |                                      |  |
| Qi Zhang                                                                                                                                                                      | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Haoyu Liu                                                                                                                                                                     | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Yue Wang                                                                                                                                                                      | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Hongrun Yi                                                                                                                                                                    | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| 11:19-11:27                                                                                                                                                                   | B9.9                                 |  |
| <b>994</b> <i>Active airframe-propulsion integrated control for air-breathing hypersonic vehicles</i>                                                                         |                                      |  |
| Jiaxin Li                                                                                                                                                                     | Sun Yat-sen Univ.                    |  |
| Boyu Zeng                                                                                                                                                                     | Dalian Univ. of Technology           |  |
| Shuaibin An                                                                                                                                                                   | Dalian Univ. of Technology           |  |
| Guan Wang                                                                                                                                                                     | Dalian Univ. of Technology           |  |
| Kai Liu                                                                                                                                                                       | Dalian Univ. of Technology           |  |
| Zhigang Wu                                                                                                                                                                    | Sun Yat-sen Univ.                    |  |
| 11:27-11:35                                                                                                                                                                   | B9.10                                |  |
| <b>1067</b> <i>Attitude reconstruction control via airframe-propulsion coupling for air-breathing hypersonic vehicles under aerodynamic control effectiveness degradation</i> |                                      |  |
| Boyu Zeng                                                                                                                                                                     | Dalian Univ. of Technology           |  |
| Dapeng Yang                                                                                                                                                                   | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Jiaxin Li                                                                                                                                                                     | Sun Yat-sen Univ.                    |  |
| Shuaibin An                                                                                                                                                                   | Dalian Univ. of Technology           |  |
| Guan Wang                                                                                                                                                                     | Dalian Univ. of Technology           |  |
| Kai Liu                                                                                                                                                                       | Dalian Univ. of Technology           |  |
| 11:35-11:43                                                                                                                                                                   | B9.11                                |  |
| <b>1068</b> <i>Neural network adaptive vibration suppression architecture for distributed actuators</i>                                                                       |                                      |  |
| Zijun Gu                                                                                                                                                                      | Dalian Univ. of Technology           |  |
| Jianan Qin                                                                                                                                                                    | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Danwei Li                                                                                                                                                                     | AVIC Shenyang Aircraft Design        |  |
|                                                                                                                                                                               | and Research Institute               |  |
| Kai Liu                                                                                                                                                                       | Dalian Univ. of Technology           |  |
| Qingfeng Zhao                                                                                                                                                                 | Dalian Univ. of Technology           |  |
| Ming Yan                                                                                                                                                                      | Dalian Univ. of Technology           |  |
| Shaoze Huo                                                                                                                                                                    | Dalian Univ. of Technology           |  |
| Zhechen Liu                                                                                                                                                                   | Dalian Univ. of Technology           |  |
| Yunlong Zhao                                                                                                                                                                  | Dalian Univ. of Technology           |  |
| 11:43-11:51                                                                                                                                                                   | B9.12                                |  |
| <b>576</b> <i>Sliding-window factor graphs for UAV localization with delayed radar observations</i>                                                                           |                                      |  |
| Liang Yu                                                                                                                                                                      | National Univ. of Defense Technology |  |
| Mengyun Wang                                                                                                                                                                  | National Univ. of Defense Technology |  |
| Yifeng Niu                                                                                                                                                                    | National Univ. of Defense Technology |  |

|                                                                                                                         |                                           |                             |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------|
| 11:51-11:59                                                                                                             | B9.13                                     |                             |
| <b>1444</b> <i>Research on automatic landing processes and simulations for civil aircraft</i>                           |                                           |                             |
| Miao Wu                                                                                                                 | AVIC Shenyang Aircraft Design             |                             |
|                                                                                                                         | and Research Institute                    |                             |
| Yanming Fan                                                                                                             | AVIC Shenyang Aircraft Design             |                             |
|                                                                                                                         | and Research Institute                    |                             |
| Yanguo Hu                                                                                                               | AVIC Shenyang Aircraft Design             |                             |
|                                                                                                                         | and Research Institute                    |                             |
| Jingling Gui                                                                                                            | AVIC Shenyang Aircraft Design             |                             |
|                                                                                                                         | and Research Institute                    |                             |
| Derui Wang                                                                                                              | AVIC Shenyang Aircraft Design             |                             |
|                                                                                                                         | and Research Institute                    |                             |
| 11:59-12:07                                                                                                             | B9.14                                     |                             |
| <b>1578</b> <i>Design and analysis of transition strategies for composite wing unmanned aerial vehicles</i>             |                                           |                             |
| Haoyong Jiang                                                                                                           | Dalian Univ. of Technology                |                             |
| Zhongrun Wang                                                                                                           | Dalian Univ. of Technology                |                             |
| Yunlong Zhao                                                                                                            | Dalian Univ. of Technology                |                             |
| Huadong Li                                                                                                              | Dalian Univ. of Technology                |                             |
| Qingfeng Zhao                                                                                                           | Dalian Univ. of Technology                |                             |
| Zongyu Zhang                                                                                                            | Dalian Maritime Univ.                     |                             |
| Jun Liu                                                                                                                 | Dalian Univ. of Technology                |                             |
| Kai Liu                                                                                                                 | Dalian Univ. of Technology                |                             |
| 12:07-12:15                                                                                                             | B9.15                                     |                             |
| <b>1738</b> <i>AI-Assisted requirements-driven modeling and testing closed-loop framework for flight control system</i> |                                           |                             |
| Chenguang LI                                                                                                            | Beijing Global Crown Technology Co., Ltd. |                             |
| Qi Zhang                                                                                                                | AVIC Shenyang Aircraft Design and         |                             |
|                                                                                                                         | Research Institute                        |                             |
| Yongyi Liu                                                                                                              | AVIC Shenyang Aircraft Design and         |                             |
|                                                                                                                         | Research Institute                        |                             |
| Wentie Lai                                                                                                              | Beijing Global Crown Technology Co., Ltd. |                             |
| Jilong Lin                                                                                                              | Beijing Global Crown Technology Co., Ltd. |                             |
| Yan Luo                                                                                                                 | Beijing Global Crown Technology Co., Ltd. |                             |
| <b>B10</b>                                                                                                              |                                           | <b>2nd Floor VIP Room 2</b> |
| <b>Hybrid GNC</b>                                                                                                       |                                           | <b>2 层 贵宾厅 2</b>            |
| Chairs: Yongxi Lyu                                                                                                      |                                           |                             |
| 10:15-10:23                                                                                                             | B10.1                                     |                             |
| <b>618</b> <i>Practical fixed-time fault-tolerant control for aircraft subject to actuator faults</i>                   |                                           |                             |
| Yixin Jiao                                                                                                              | Northwestern Polytechnical Univ.          |                             |
| Jingping Shi                                                                                                            | Northwestern Polytechnical Univ.          |                             |
| Yongxi Lyu                                                                                                              | Northwestern Polytechnical Univ.          |                             |
| Yunyan Wu                                                                                                               | AVIC Xi'an Flight Automatic               |                             |
|                                                                                                                         | Control Research Institute                |                             |
| 10:23-10:31                                                                                                             | B10.2                                     |                             |
| <b>625</b> <i>A loop closure localization algorithm based on image features</i>                                         |                                           |                             |
| Boyang Gao                                                                                                              | Northwestern Polytechnical Univ.          |                             |
| Minkun Zhao                                                                                                             | AVIC Xi'an Flight Automatic               |                             |
|                                                                                                                         | Control Research Institute                |                             |
| Hongyuan Zhu                                                                                                            | AVIC Chengdu Aircraft Design and          |                             |
|                                                                                                                         | Research Institute                        |                             |
| Keyan Hu                                                                                                                | Northwestern Polytechnical Univ.          |                             |
| Xiaoxiong Liu                                                                                                           | Northwestern Polytechnical Univ.          |                             |
| 10:31-10:39                                                                                                             | B10.3                                     |                             |

**686** *Research on dynamical boundary solving methods based on manifold theory*

|              |                                                      |
|--------------|------------------------------------------------------|
| Shipeng wang | Northwestern Polytechnical Univ.                     |
| Dong Zhang   | AVIC Shenyang Aircraft Design and Research Institute |
| Xin Tian     | Northwestern Polytechnical Univ.                     |
| Jingping Shi | Northwestern Polytechnical Univ.                     |
| Yongxi Lyu   | Northwestern Polytechnical Univ.                     |
| 10:39-10:47  | B10.4                                                |

**699** *Analysis of aircraft high-angle-of-attack characteristics and spin recovery based on BACTM*

|              |                                  |
|--------------|----------------------------------|
| Daifu Liang  | Northwestern Polytechnical Univ. |
| Zhihui Du    | Northwestern Polytechnical Univ. |
| Jingping Shi | Northwestern Polytechnical Univ. |
| Xiaobo Qu    | Northwestern Polytechnical Univ. |
| Yongxi Lyu   | Northwestern Polytechnical Univ. |
| 10:47-10:55  | B10.5                            |

**748** *Longitudinal control of fixed-canted rotorcraft in rotor mode using ADRC*

|              |                                                       |
|--------------|-------------------------------------------------------|
| Jiaping Li   | Northwestern Polytechnical Univ.                      |
| Jingping Shi | Northwestern Polytechnical Univ.                      |
| Xiaobo Qu    | Northwestern Polytechnical Univ.                      |
| Yongxi Lyu   | Northwestern Polytechnical Univ.                      |
| Dongxiu Qiu  | COMAC Shanghai Aircraft Design and Research Institute |
| 10:55-11:03  | B10.6                                                 |

**807** *Research on formation transformation control methods for aircraft in tight formation*

|               |                                                   |
|---------------|---------------------------------------------------|
| Ameng Xu      | AVIC First Aircraft Design and Research Institute |
| Xinhui Zhang  | AVIC First Aircraft Design and Research Institute |
| Yunpeng Cai   | Northwestern Polytechnical Univ.                  |
| Xiaoxiong Liu | Northwestern Polytechnical Univ.                  |
| 11:03-11:11   | B10.7                                             |

**842** *Height protection for wind tunnel free-flight of low-aspect-ratio flying wings at high angle of attack*

|              |                                                      |
|--------------|------------------------------------------------------|
| Yan Liu      | AVIC Shenyang Aircraft Design and Research Institute |
| Zhijie Liu   | Northwestern Polytechnical Univ.                     |
| Xiaobo Qu    | Northwestern Polytechnical Univ.                     |
| Jingping Shi | Northwestern Polytechnical Univ.                     |
| Yongxi Lyu   | Northwestern Polytechnical Univ.                     |
| 11:11-11:19  | B10.8                                                |

**1042** *Dual-stream fusion network for air target tactical intention recognition in air combat*

|              |                                  |
|--------------|----------------------------------|
| GengNong Li  | Northwestern Polytechnical Univ. |
| Xiaochen Lyu | Northwestern Polytechnical Univ. |
| Jingping Shi | Northwestern Polytechnical Univ. |
| Yongxi Lyu   | Northwestern Polytechnical Univ. |
| 11:19-11:27  | B10.9                            |

**1071** *Aerodynamic parameter identification of complex configuration aircraft based on adaptive zero-phase filtering and constrained least squares*

|              |                                  |
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| Xinyi Zhang  | Northwestern Polytechnical Univ. |
| Yongxi Lyu   | Northwestern Polytechnical Univ. |
| Jingping Shi | Northwestern Polytechnical Univ. |

Wangyi Zhou AVIC Flight Automatic Control Research Institute

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| 11:27-11:35 | B10.10 |
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**1081** *A two step neural network based wave-off decision method for carrier-based aircraft under multiple fault conditions*

|              |                                                        |
|--------------|--------------------------------------------------------|
| Yuyan Cao    | AVIC Xi'an Flight Automatic Control Research Institute |
| Longzhen Hu  | AVIC Xi'an Flight Automatic Control Research Institute |
| Xiaofeng Sun | AVIC Xi'an Flight Automatic Control Research Institute |
| Cihang Wu    | AVIC Xi'an Flight Automatic Control Research Institute |
| Ke Yu        | AVIC Xi'an Flight Automatic Control Research Institute |

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| 11:35-11:43 | B10.11 |
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**1084** *Adaptive flight control for the tailless blended-wing-body aircraft*

|              |                                   |
|--------------|-----------------------------------|
| Ruoyi Jiao   | Chinese Flight Test Establishment |
| Yongxi Lyu   | Northwestern Polytechnical Univ.  |
| Jingping Shi | Northwestern Polytechnical Univ.  |

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| 11:43-11:51 | B10.12 |
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**1182** *Decentralized cooperative target tracking of multi-UAVs based on sliding mode guidance and phase adjustment*

|                |                                                        |
|----------------|--------------------------------------------------------|
| Yihua Hu       | Aviation Industry Development Research Center of China |
| Yongchuan Yang | Northwestern Polytechnical Univ.                       |
| Jingping Shi   | Northwestern Polytechnical Univ.                       |
| Yongxi Lyu     | Northwestern Polytechnical Univ.                       |
| Gengnong Li    | Northwestern Polytechnical Univ.                       |

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| 11:51-11:59 | B10.13 |
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**1515** *Transition optimized control of a quad-tilt ducted UAV*

|              |                                  |
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| Yebin Ni     | Northwestern Polytechnical Univ. |
| Daixin Xu    | Northwestern Polytechnical Univ. |
| Xiaobo Qu    | Northwestern Polytechnical Univ. |
| Yongxi Lyu   | Northwestern Polytechnical Univ. |
| Jingping Shi | Northwestern Polytechnical Univ. |

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| 11:59-12:07 | B10.14 |
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**1519** *ArUco marker board-based reconfigurable control for aircraft with control surface jam fault*

|               |                                                            |
|---------------|------------------------------------------------------------|
| Weidong Yu    | AVIC Shenyang Aircraft Design and Research Institute       |
| Xianghua Zhai | Southwest China Research Institute of Electronic Equipment |
| YinXiang Li   | Northwestern Polytechnical Univ.                           |
| Jintao Wu     | Northwestern Polytechnical Univ.                           |
| Jingping Shi  | Northwestern Polytechnical Univ.                           |
| Yongxi Lyu    | Northwestern Polytechnical Univ.                           |
| Zhihui Du     | Northwestern Polytechnical Univ.                           |

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| 12:07-12:15 | B10.15 |
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**1542** *Design and flight test verification of auto GCAS for UAVs*

|              |                                                        |
|--------------|--------------------------------------------------------|
| Fuxiang Qiao | AVIC Xi'an Flight Automatic Control Research Institute |
| Jiahang Lai  | AVIC Xi'an Flight Automatic Control Research Institute |
| Chen Zhou    | AVIC Xi'an Flight Automatic Control Research Institute |

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|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Shaomin He                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute | Navigation Technology Co., Ltd.                                                                                                               |                                                        |
| Yige Luo                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute | Zhipeng Wang                                                                                                                                  | Beihang Univ.                                          |
| Jianjun Huang                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute | Kun Fang                                                                                                                                      | Beihang Univ.                                          |
| <b>B12 Poster Session</b>                                                                                                                |                                                        | 10:15-12:15                                                                                                                                   | B12.6                                                  |
| <b>Poster Area 海报区</b>                                                                                                                   |                                                        | <b>1592</b> 面向月表复杂工况的轻量化视惯多速率滤波算法                                                                                                             |                                                        |
| Chairs: Hang Liu                                                                                                                         |                                                        | Yuhang Liu                                                                                                                                    | Innovation Academy for Microsatellites, CAS            |
| 10:15-12:15                                                                                                                              | B12.1                                                  | Xiwang Xia                                                                                                                                    | Innovation Academy for Microsatellites, CAS            |
| <b>912</b> 基于 CNN-MLP 的 Hessian-PSO 室内多源融合三维定位算法                                                                                         |                                                        | 10:15-12:15                                                                                                                                   | B12.7                                                  |
| Fang Liu                                                                                                                                 | Shenyang Ligong Univ.                                  | <b>1594</b> Multi-vehicle INS/UWB factor graph optimization cooperative localization method based on residual detection and damping iteration |                                                        |
| Shuai Liu                                                                                                                                | Shenyang Ligong Univ.                                  | Zhan Gao                                                                                                                                      | National Univ. of Defense Technology                   |
| Yanan Liu                                                                                                                                | Shenyang Ligong Univ.                                  | Guo Wei                                                                                                                                       | National Univ. of Defense Technology                   |
| 10:15-12:15                                                                                                                              | B12.2                                                  | Chengzhi Hou                                                                                                                                  | National Univ. of Defense Technology                   |
| <b>1017</b> Adaptive-rate factor graph integrated navigation modeling and gyroscope bias enhancement method for airborne measured data   |                                                        | Jing Wang                                                                                                                                     | National Univ. of Defense Technology                   |
| Pengfei Yang                                                                                                                             | Beihang Univ.                                          | Yaodong Liao                                                                                                                                  | National Univ. of Defense Technology                   |
| Li Fu                                                                                                                                    | Beihang Univ.                                          | Chilu Zhang                                                                                                                                   | National Univ. of Defense Technology                   |
| Jiyao Zhu                                                                                                                                | Beihang Univ.                                          | Chunfeng Gao                                                                                                                                  | National Univ. of Defense Technology                   |
| Jiajun Li                                                                                                                                | Beihang Univ.                                          | 10:15-12:15                                                                                                                                   | B12.8                                                  |
| 10:15-12:15                                                                                                                              | B12.3                                                  | <b>334</b> A hybrid Kalman filter and LSTM model with residual learning for ship trajectory prediction                                        |                                                        |
| <b>1117</b> 基于光流法的惯性导航静基座对准晃动检测方法                                                                                                        |                                                        | Cunyi Hu                                                                                                                                      | Xi'an Modern Control Technology Research Institute     |
| Wanrui Li                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute | Rui Pan                                                                                                                                       | Xi'an Modern Control Technology Research Institute     |
| Jinglian Cao                                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute | Xindi Wang                                                                                                                                    | Xi'an Modern Control Technology Research Institute     |
| Shaolong Song                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute | Haochun Miao                                                                                                                                  | Xi'an Modern Control Technology Research Institute     |
| 10:15-12:15                                                                                                                              | B12.4                                                  | Jinping Li                                                                                                                                    | Xi'an Modern Control Technology Research Institute     |
| <b>1499</b> Fusion and integrity method for autonomous landing of civil aircraft                                                         |                                                        | 10:15-12:15                                                                                                                                   | B12.9                                                  |
| Qixuan Sun                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute | <b>703</b> 天基红外卫星调度与测量时延的目标跟踪                                                                                                                 |                                                        |
| Yazhou Yue                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute | Yao Hou                                                                                                                                       | Beihang Univ.                                          |
| Chengkang Yao                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute | Chenzhe Liu                                                                                                                                   | Beihang Univ.                                          |
| Xiaodong Zhang                                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute | Yandong Wang                                                                                                                                  | Beihang Univ.                                          |
| Nan Liu                                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute | 10:15-12:15                                                                                                                                   | B12.10                                                 |
| Zhiyu Yin                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute | <b>1215</b> Adaptive GNSS interference source localization method based on convolutional neural networks                                      |                                                        |
| Wenbo Suo                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute | Jiuyang Hou                                                                                                                                   | Beijing Institute of Technology                        |
| 10:15-12:15                                                                                                                              | B12.5                                                  | Xu Chen                                                                                                                                       | Beijing Institute of Technology                        |
| <b>1551</b> A loosely coupled integrated navigation method for aircraft under GNSS spoofing using DME/VOR, barometric altimeter, and INS |                                                        | Tao Feng                                                                                                                                      | Research Institute of Highway Ministry of Transport    |
| Jinxiang Wang                                                                                                                            | Beihang Univ.                                          | Huaijian Li                                                                                                                                   | Beijing Institute of Technology                        |
| Xiaopeng Hou                                                                                                                             | Beihang Univ.                                          | 10:15-12:15                                                                                                                                   | B12.11                                                 |
| Jichao Dong                                                                                                                              | Aviation Data Communication Corporation                | <b>1222</b> Design of airborne star sensor for all-time detection                                                                             |                                                        |
| Xiuqing Li                                                                                                                               | Tianjin 764 Communication and                          | Boya Wang                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
|                                                                                                                                          |                                                        | Nan Xiao                                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
|                                                                                                                                          |                                                        | Xiaodong Hu                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |
|                                                                                                                                          |                                                        | 10:15-12:15                                                                                                                                   | B12.12                                                 |
|                                                                                                                                          |                                                        | <b>1333</b> NMPC-based trajectory tracking control of non-center point on differential-drive wheeled robot                                    |                                                        |
|                                                                                                                                          |                                                        | Zhenhang Ming                                                                                                                                 | Linyi Univ.                                            |
|                                                                                                                                          |                                                        | Ancai Zhang                                                                                                                                   | Linyi Univ.                                            |

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|------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Quan Yuan                                                                                      | Linyi Univ.                                               | Mingming Tian                                                                                                                       | AVIC Xi'an Flight Automatic            |
| Junyao Yu                                                                                      | Linyi Univ.                                               |                                                                                                                                     | Control Research Institute             |
| Wenbo Zheng                                                                                    | Linyi Univ.                                               | Zhao Yang                                                                                                                           | AVIC Xi'an Flight Automatic            |
| 10:15-12:15                                                                                    | B12.13                                                    |                                                                                                                                     | Control Research Institute             |
| <b>1512</b> "GoldenFuture"— space station space debris monitoring and identification system    |                                                           |                                                                                                                                     |                                        |
| Shizheng Zhou                                                                                  | Beihang Univ.                                             | Dongliang Song                                                                                                                      | AVIC Xi'an Flight Automatic            |
| Ziheng Xu                                                                                      | Beihang Univ.                                             |                                                                                                                                     | Control Research Institute             |
| Yunhan Wang                                                                                    | Beihang Univ.                                             | Yueping Wang                                                                                                                        | AVIC Xi'an Flight Automatic            |
| Jiacheng Peng                                                                                  | Beihang Univ.                                             |                                                                                                                                     | Control Research Institute             |
| Wenxin Huang                                                                                   | Beihang Univ.                                             | Guoqiang Yang                                                                                                                       | AVIC Xi'an Flight Automatic            |
| Xianduo Wang                                                                                   | Beihang Univ.                                             |                                                                                                                                     | Control Research Institute             |
| Runze Zhang                                                                                    | Beihang Univ.                                             | 10:15-12:15                                                                                                                         | B12.19                                 |
| Shumin Jian                                                                                    | Beihang Univ.                                             | <b>456</b> 基于衰减记忆卡尔曼滤波的甲板运动预估策略                                                                                                     |                                        |
| Chengcai Wang                                                                                  | Beihang Univ.                                             | Xudong Huang                                                                                                                        | AVIC Xi'an Flight Automatic            |
| 10:15-12:15                                                                                    | B12.14                                                    |                                                                                                                                     | Control Research Institute             |
| <b>238</b> Monte carlo simulation of an automatic landing system and its quantitative analysis |                                                           |                                                                                                                                     |                                        |
| Haonan Xu                                                                                      | COMAC Shanghai Aircraft Design and Research Institute     | Zixia Wen                                                                                                                           | AVIC Xi'an Flight Automatic            |
| Hongxin Wang                                                                                   | COMAC Shanghai Aircraft Design and Research Institute     |                                                                                                                                     | Control Research Institute             |
| Qinyu Wei                                                                                      | COMAC Shanghai Aircraft Design and Research Institute     | Qianwei Yang                                                                                                                        | AVIC Xi'an Flight Automatic            |
| Chang Liu                                                                                      | COMAC Shanghai Aircraft Design and Research Institute     |                                                                                                                                     | Control Research Institute             |
| Ziqin Xu                                                                                       | COMAC Shanghai Aircraft Design and Research Institute     | Mingming Tian                                                                                                                       | AVIC Xi'an Flight Automatic            |
| 10:15-12:15                                                                                    | B12.15                                                    |                                                                                                                                     | Control Research Institute             |
| <b>239</b> Geometric decoupling and attitude control for dual tilt-rotor tri-copter            |                                                           |                                                                                                                                     |                                        |
| Shaoqiu Deng                                                                                   | Jiangxi Guoke Defence Group Co., Ltd.                     | Guanlin Li                                                                                                                          | AVIC Xi'an Flight Automatic            |
| Ruizhi Jiang                                                                                   | Jiangxi Guoke Defence Group Co., Ltd.                     |                                                                                                                                     | Control Research Institute             |
| Zhiyan Zhang                                                                                   | Jiangxi Guoke Group Co., Ltd.                             | 10:15-12:15                                                                                                                         | B12.20                                 |
| Zichun Guo                                                                                     | Beihang Univ.                                             | <b>529</b> Actuator dynamic rate-optimized control allocation for tilt-rotor tri-copters                                            |                                        |
| Bahetnuer Hasiyati                                                                             | Beihang Univ.                                             | Zizhuo Cai                                                                                                                          | Beihang Univ.                          |
| Yingjian Xu                                                                                    | Beijing Aero King Technology Co., Ltd.                    | Pei Chi                                                                                                                             | Beihang Univ.                          |
| Gaoyu Liang                                                                                    | Bauman Moscow State Technical Univ.                       | Yince Gao                                                                                                                           | Beihang Univ.                          |
| Zizhuo Cai                                                                                     | Beihang Univ.                                             | Zichun Guo                                                                                                                          | Beihang Univ.                          |
| 10:15-12:15                                                                                    | B12.16                                                    | Qidi Wang                                                                                                                           | Beihang Univ.                          |
| <b>245</b> 基于可控性分析的固定翼飞机 S 型飞行下的姿态变换设计                                                         |                                                           |                                                                                                                                     |                                        |
| Bowen Su                                                                                       | Univ. of Electronic Science and Technology of China       | Yiyu Wang                                                                                                                           | Beihang Univ.                          |
| Xiaoping Chen                                                                                  | Univ. of Electronic Science and Technology of China       | Zhiheng Dai                                                                                                                         | Beihang Univ.                          |
| Yuankai Li                                                                                     | Univ. of Electronic Science and Technology of China       | Yingjian Xu                                                                                                                         | Beihang Univ.                          |
| 10:15-12:15                                                                                    | B12.17                                                    | Xinglu Xia                                                                                                                          | Beihang Univ.                          |
| <b>353</b> 基于奇异摄动的非仿射系统控制分配                                                                    |                                                           |                                                                                                                                     |                                        |
| Junping Chen                                                                                   | COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd. | Yingxun Wang                                                                                                                        | Beihang Univ.                          |
| Jiang Wu                                                                                       | COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd. | 10:15-12:15                                                                                                                         | B12.21                                 |
| Shu Yang                                                                                       | Northwestern Polytechnical Univ.                          | <b>617</b> 弹性飞行器静态输出反馈降阶控制                                                                                                          |                                        |
| Jiabo Zheng                                                                                    | Northwestern Polytechnical Univ.                          | Ting Yang                                                                                                                           | Beijing Aerospace Technology Institute |
| 10:15-12:15                                                                                    | B12.18                                                    | Shu Yang                                                                                                                            | Northwestern Polytechnical Univ.       |
| <b>371</b> 电动复合翼无人机垂直降落抗风控制方法                                                                  |                                                           |                                                                                                                                     |                                        |
|                                                                                                |                                                           | Jian Guo                                                                                                                            | Beijing Aerospace Technology Institute |
|                                                                                                |                                                           | 10:15-12:15                                                                                                                         | B12.22                                 |
|                                                                                                |                                                           | <b>677</b> Unified control allocation for a novel bi-copter with center of gravity uncertainty                                      |                                        |
|                                                                                                |                                                           | Yiyu Wang                                                                                                                           | Beihang Univ.                          |
|                                                                                                |                                                           | Xinglu Xia                                                                                                                          | Beihang Univ.                          |
|                                                                                                |                                                           | Zizhuo Cai                                                                                                                          | Beihang Univ.                          |
|                                                                                                |                                                           | Qidi Wang                                                                                                                           | Beihang Univ.                          |
|                                                                                                |                                                           | Zhiheng Dai                                                                                                                         | Beihang Univ.                          |
|                                                                                                |                                                           | Zichun Guo                                                                                                                          | Beihang Univ.                          |
|                                                                                                |                                                           | Yingxun Wang                                                                                                                        | Beihang Univ.                          |
|                                                                                                |                                                           | 10:15-12:15                                                                                                                         | B12.23                                 |
|                                                                                                |                                                           | <b>735</b> Direct lift landing control for carrier-based aircraft via active disturbance rejection control and sliding mode control |                                        |
|                                                                                                |                                                           | Zhihao Zhang                                                                                                                        | Beijing Univ. of Technology            |
|                                                                                                |                                                           | Xiangyin Zhang                                                                                                                      | Beijing Univ. of Technology            |
|                                                                                                |                                                           | 10:15-12:15                                                                                                                         | B12.24                                 |
|                                                                                                |                                                           | <b>813</b> Research on intelligent fault-tolerant control technology for                                                            |                                        |

|                                                                                                                                                                |                                                           |                                                                                                                                  |                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <i>control surface loss fault of carrier-based aircraft</i>                                                                                                    |                                                           | Tianlun Huan                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
| Yang Zhang                                                                                                                                                     | Naval Academy                                             | Shiyu Zuo                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Xi Wang                                                                                                                                                        | Naval Academy                                             | Shaoping Chang                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |
| Yi Zhou                                                                                                                                                        | Naval Academy                                             |                                                                                                                                  |                                                        |
| Liting Song                                                                                                                                                    | Naval Aeronautical Univ.                                  |                                                                                                                                  |                                                        |
| Jiaxing Wang                                                                                                                                                   | AVIC Shenyang Aircraft Design and Research Institute      |                                                                                                                                  |                                                        |
| Dapeng Zhou                                                                                                                                                    | AVIC Shenyang Aircraft Design and Research Institute      |                                                                                                                                  |                                                        |
| 10:15-12:15                                                                                                                                                    | B12.25                                                    | 10:15-12:15                                                                                                                      | B12.31                                                 |
| <b>1010</b> <i>Sliding mode with time delay control for aero-engine</i>                                                                                        |                                                           | <b>1717</b> <i>A helicopter velocity protection algorithm based on cascaded potential functions and explicit model following</i> |                                                        |
| Jing Qin                                                                                                                                                       | Northwestern Polytechnical Univ.                          | Renqing Zhai                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute |
| Yingzhi Huang                                                                                                                                                  | Northwestern Polytechnical Univ.                          | Mingzhuang Zhang                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute |
| 10:15-12:15                                                                                                                                                    | B12.26                                                    | Linyi Zhi                                                                                                                        | Aircraft Strength Research Institute of China          |
| <b>1470</b> <i>Research on attitude control of automatic flight control system based on linear active disturbance rejection control</i>                        |                                                           | 10:15-12:15                                                                                                                      | B12.32                                                 |
| Furui Yu                                                                                                                                                       | AVIC Shenyang Aircraft Design and Research Institute      | <b>495</b> <i>QAR data-driven GNSS spoofing detection using random forest</i>                                                    |                                                        |
| Yanguo Hu                                                                                                                                                      | AVIC Shenyang Aircraft Design and Research Institute      | Dikai Yang                                                                                                                       | China Academy of Civil Aviation Science and Technology |
| Xiaoye Wang                                                                                                                                                    | AVIC Shenyang Aircraft Design and Research Institute      | Jing Guo                                                                                                                         | China Academy of Civil Aviation Science and Technology |
| Jialiang Zheng                                                                                                                                                 | AVIC Shenyang Aircraft Design and Research Institute      | Xuhui Wang                                                                                                                       | China Academy of Civil Aviation Science and Technology |
| Ruiyang Ban                                                                                                                                                    | AVIC Shenyang Aircraft Design and Research Institute      | Yubin Xu                                                                                                                         | China Academy of Civil Aviation Science and Technology |
| 10:15-12:15                                                                                                                                                    | B12.27                                                    | Xiangdong Xun                                                                                                                    | China Academy of Civil Aviation Science and Technology |
| <b>1642</b> <i>面向飞翼布局质心过载减缓的舵面分配与增稳控制研究</i>                                                                                                                    |                                                           | Fanrong Sun                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics          |
| Peng Tang                                                                                                                                                      | Beihang Univ.                                             | 10:15-12:15                                                                                                                      | B12.33                                                 |
| Enci Bian                                                                                                                                                      | Beihang Univ.                                             | <b>569</b> <i>Enhanced flight control for a large receiver aircraft</i>                                                          |                                                        |
| Yanshan Shen                                                                                                                                                   | Beihang Univ.                                             | Siyuan Cai                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute |
| 10:15-12:15                                                                                                                                                    | B12.28                                                    | Yang Meng                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>1644</b> <i>A robust integrated guidance and control scheme based on linear time-varying model predictive control combined with extended state observer</i> |                                                           | Yuyan Cao                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Yangyang Deng                                                                                                                                                  | National Univ. of Defense Technology                      | Erzhuo Niu                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute |
| Wanying Xu                                                                                                                                                     | National Univ. of Defense Technology                      | Ke Yu                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| Yongbin Zheng                                                                                                                                                  | National Univ. of Defense Technology                      | 10:15-12:15                                                                                                                      | B12.34                                                 |
| Peisen Zhu                                                                                                                                                     | National Univ. of Defense Technology                      | <b>377</b> <i>Carrier-based aircraft approach: dynamic landing point prediction and safety assessment</i>                        |                                                        |
| 10:15-12:15                                                                                                                                                    | B12.29                                                    | Bing Wan                                                                                                                         | Naval Aviation Univ.                                   |
| <b>1715</b> <i>Modeling and landing control of a civil aircraft-landing gear integrated system</i>                                                             |                                                           | Wei Han                                                                                                                          | Naval Aviation Univ.                                   |
| Junping Chen                                                                                                                                                   | COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd. | Zishuang Pan                                                                                                                     | Naval Aviation Univ.                                   |
| Jiang Wu                                                                                                                                                       | COMAC Shanghai Aircraft Test Flight Engineering Co., Ltd. | Shansong Song                                                                                                                    | Naval Aviation Univ.                                   |
| Shu Yang                                                                                                                                                       | Northwestern Polytechnical Univ.                          | 10:15-12:15                                                                                                                      | B12.35                                                 |
| Yunhe Qiu                                                                                                                                                      | Northwestern Polytechnical Univ.                          | <b>655</b> <i>Optimized design of drop guidance system for aviation fire fighting with airworthiness certification</i>           |                                                        |
| 10:15-12:15                                                                                                                                                    | B12.30                                                    | Jinze Song                                                                                                                       | COMAC Shanghai Aircraft Design and Research Institute  |
| <b>1719</b> <i>Flare trajectory planning and precision control for category III autoland</i>                                                                   |                                                           | Kezhi Zhang                                                                                                                      | COMAC Shanghai Aircraft Design and Research Institute  |
| Ranran Wang                                                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute    | Yabin Dang                                                                                                                       | COMAC Shanghai Aircraft Design                         |
| Yueping Wang                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute    |                                                                                                                                  |                                                        |
| Tianpeng Huang                                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute    |                                                                                                                                  |                                                        |

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|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Xuyin Yao                                                                                                                     | and Research Institute<br>COMAC Shanghai Aircraft Design<br>and Research Institute | Zhigang Zhao                                                                                                                            | Lanzhou Jiaotong Univ.                                       |
| Yang Wu                                                                                                                       | COMAC Shanghai Aircraft Design<br>and Research Institute                           | Jihong Zhu                                                                                                                              | Tsinghua Univ.                                               |
| 10:15-12:15                                                                                                                   | B12.36                                                                             | 10:15-12:15                                                                                                                             | B12.41                                                       |
| <b>889</b> <i>Dynamic threat assessment framework of aerial targets under continuous data loss and type misidentification</i> |                                                                                    | <b>7</b> <i>A ground-based semi-physical method for multi-spacecraft cooperative observation of space spinning targets</i>              |                                                              |
| Changcheng Wang                                                                                                               | AVIC Shenyang Aircraft Design<br>and Research Institute                            | Jinzen Mu                                                                                                                               | Shanghai Aerospace Control<br>Technology Institute           |
| Pengjiao Li                                                                                                                   | AVIC Shenyang Aircraft Design<br>and Research Institute                            | He Zhang                                                                                                                                | Shanghai Aerospace Control<br>Technology Institute           |
| Xiaodi Yang                                                                                                                   | Shanghai Jiao Tong Univ.                                                           | 10:15-12:15                                                                                                                             | B12.42                                                       |
| 10:15-12:15                                                                                                                   | B12.37                                                                             | <b>193</b> <i>Integrated Attitude and Orbit Control Using Four Thrusters with Optimal Pulse Width Allocation</i>                        |                                                              |
| <b>1448</b> <i>False-target detection via neural networks with multidimensional statistical features</i>                      |                                                                                    | Jinjin Zhu                                                                                                                              | Shanghai Aerospace Control<br>Technology Institute           |
| Li Wan                                                                                                                        | Beijing Institute of Electronic<br>System Engineering                              | Mengxuan Wu                                                                                                                             | Shanghai Aerospace Control<br>Technology Institute           |
| Meng Sun                                                                                                                      | Huazhong Univ. of Science and<br>Technology                                        | Changtao Qin                                                                                                                            | Shanghai Aerospace Control<br>Technology Institute           |
| Yang Li                                                                                                                       | Beijing Institute of Electronic<br>System Engineering                              | Rongfeng Lin                                                                                                                            | Shanghai Aerospace Control<br>Technology Institute           |
| 10:15-12:15                                                                                                                   | B12.38                                                                             | 10:15-12:15                                                                                                                             | B12.43                                                       |
| <b>12</b> <i>Control strategy for engaging the dog-clutch based on the driver's intention</i>                                 |                                                                                    | <b>212</b> <i>Distance-aware monocular spacecraft pose estimation via a top-down deep learning network</i>                              |                                                              |
| Yang Gao                                                                                                                      | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | Linze Chen                                                                                                                              | Southeast Univ.                                              |
| Hao Hu                                                                                                                        | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | Zeyuan Li                                                                                                                               | Southeast Univ.                                              |
| Yiqiang Liu                                                                                                                   | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | Kelin Lu                                                                                                                                | Southeast Univ.                                              |
| Jiangfeng Liu                                                                                                                 | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | 10:15-12:15                                                                                                                             | B12.44                                                       |
| Congqian Wang                                                                                                                 | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | <b>362</b> <i>Multi-frequency anti-aliasing rate damping control analysis for satellites under extreme angular velocity</i>             |                                                              |
| Dongyang Xin                                                                                                                  | Aurobay(Ningbo) Intelligent<br>Technology Co., Ltd.                                | Xiwang Xia                                                                                                                              | Innovation Academy for<br>Microsatellites, CAS               |
| 10:15-12:15                                                                                                                   | B12.39                                                                             | Fanxing Meng                                                                                                                            | Harbin Institute of Technology                               |
| <b>220</b> <i>Modeling and analysis of dynamic damping characteristics for flight control actuators</i>                       |                                                                                    | Han Du                                                                                                                                  | Shanghai Aerospace Systems<br>Engineering Research Institute |
| Peng Liu                                                                                                                      | AVIC Xi'an Flight Automatic<br>Control Research Institute                          | 10:15-12:15                                                                                                                             | B12.45                                                       |
| Jiahang Zhou                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute                          | <b>374</b> <i>Simulation analysis of high-precision orbit determination for lunar satellite using satellite-to-ground laser ranging</i> |                                                              |
| Yixue Hu                                                                                                                      | AVIC Xi'an Flight Automatic<br>Control Research Institute                          | Xiao Zhang                                                                                                                              | Harbin Institute of Technology                               |
| Linyuan Dong                                                                                                                  | AVIC Xi'an Flight Automatic<br>Control Research Institute                          | 10:15-12:15                                                                                                                             | B12.46                                                       |
| Wei Liu                                                                                                                       | AVIC Xi'an Flight Automatic<br>Control Research Institute                          | <b>419</b> <i>Equinoctial Q-law control with pointing constraint for low-thrust orbit transfer</i>                                      |                                                              |
| 10:15-12:15                                                                                                                   | B12.40                                                                             | Chao Duan                                                                                                                               | Beijing Institute of Control Engineering                     |
| <b>1372</b> <i>Influence of isolator layout on the dynamic characteristics of an airborne optoelectronic radar system</i>     |                                                                                    | Xiangyu Tang                                                                                                                            | Beijing Institute of Control Engineering                     |
| Shihui Wu                                                                                                                     | Lanzhou Jiaotong Univ.                                                             | Liang Zhou                                                                                                                              | Beijing Institute of Control Engineering                     |
| Zhigang Chen                                                                                                                  | Beijing Tsinghua Institute for<br>Frontier Interdisciplinary Innovation            | Shuo Wang                                                                                                                               | Beijing Institute of Control Engineering                     |
| Cheng Su                                                                                                                      | Lanzhou Jiaotong Univ.                                                             | Qiang Yu                                                                                                                                | Beijing Institute of Control Engineering                     |
|                                                                                                                               |                                                                                    | Jianxin Guo                                                                                                                             | Beijing Institute of Control Engineering                     |
|                                                                                                                               |                                                                                    | 10:15-12:15                                                                                                                             | B12.47                                                       |
|                                                                                                                               |                                                                                    | <b>442</b> <i>Analysis on lateral circuitous abilities based on L-V profile for hy-personic vehicles</i>                                |                                                              |
|                                                                                                                               |                                                                                    | Siyang Wang                                                                                                                             | Space Engineering Univ.                                      |
|                                                                                                                               |                                                                                    | Jianhua Wang                                                                                                                            | Space Engineering Univ.                                      |
|                                                                                                                               |                                                                                    | Yuanwen Cai                                                                                                                             | Space Engineering Univ.                                      |
|                                                                                                                               |                                                                                    | Meijun Yue                                                                                                                              | Space Engineering Univ.                                      |
|                                                                                                                               |                                                                                    | Zhen Wang                                                                                                                               | Space Engineering Univ.                                      |
|                                                                                                                               |                                                                                    | 10:15-12:15                                                                                                                             | B12.48                                                       |
|                                                                                                                               |                                                                                    | <b>581</b> <i>Fixed-magnitude single-impulse orbital interception based</i>                                                             |                                                              |

on reachable domain and PSO

|              |                                                  |
|--------------|--------------------------------------------------|
| Yunxiao Yang | Nanjing Univ. of Aeronautics and<br>Astronautics |
| Feng Yu      | Nanjing Univ. of Aeronautics and<br>Astronautics |

10:15-12:15 B12.49

**636** Comparative study on magnetic attitude control methods for bias momentum satellites

|            |                                                              |
|------------|--------------------------------------------------------------|
| Xiwang Xia | Innovation Academy for<br>Microsatellites, CAS               |
| Sibo Wang  | Harbin Institute of Technology                               |
| Han Du     | Shanghai Aerospace Systems<br>Engineering Research Institute |

10:15-12:15 B12.50

**827** Attitude and orbit control design and on-orbit test of satellites with large-scale flexible dual-axis solar panels

|             |                                          |
|-------------|------------------------------------------|
| Qirui Liu   | Beijing Institute of Control Engineering |
| Jiawei Tao  | Beijing Institute of Control Engineering |
| Yu Zhang    | Beijing Institute of Control Engineering |
| Wenlan Tang | Beijing Institute of Control Engineering |
| Jie Yang    | Beijing Institute of Control Engineering |
| Tong Luo    | Beijing Institute of Control Engineering |

10:15-12:15 B12.51

**920** Reliable monocular spacecraft pose estimation with automatic semantic sparse priors and coverage-aware refinement

|            |                                                          |
|------------|----------------------------------------------------------|
| Xiayu Chen | Shanghai Jiao Tong Univ.                                 |
| Zeyu Kang  | COMAC Shanghai Aircraft Design<br>and Research Institute |
| Shuai Yuan | Shanghai Jiao Tong Univ.                                 |
| Qiang Shen | Shanghai Jiao Tong Univ.                                 |

10:15-12:15 B12.52

**1012** 基于仅光学观测的地月空间非开普勒轨道极短弧数据关联分析方法

|              |                                                  |
|--------------|--------------------------------------------------|
| Hao Yu       | Nanjing Univ. of Aeronautics and<br>Astronautics |
| Zezheng Dong | Nanjing Univ. of Aeronautics and<br>Astronautics |
| Youtao Gao   | Nanjing Univ. of Aeronautics and<br>Astronautics |

10:15-12:15 B12.53

**1025** On-orbit calibration of spacecraft center of mass based on the lever arm effect

|               |                                          |
|---------------|------------------------------------------|
| Chao Xu       | Beijing Institute of Control Engineering |
| Chengyu Zhang | Beijing Institute of Control Engineering |
| Jinchang Hu   | Beijing Institute of Control Engineering |
| Xiangyu Huang | Beijing Institute of Control Engineering |

10:15-12:15 B12.54

**1029** A virtual-formation-based maintenance method for high-precision repeat-track regressive frozen orbits

|          |                                             |
|----------|---------------------------------------------|
| Tong Luo | Beijing Institute of Control<br>Engineering |
|----------|---------------------------------------------|

10:15-12:15 B12.55

**1038** gps-based baseline determination and time synchronization for GRACE-FO formation using bi-directional Kalman filtering

|              |                            |
|--------------|----------------------------|
| Yixiao Huang | Technology and Engineering |
|--------------|----------------------------|

Center for Space Utilization, CAS

|              |                                                                 |
|--------------|-----------------------------------------------------------------|
| Xuanmao Wang | Technology and Engineering<br>Center for Space Utilization, CAS |
| Yimin Lyu    | Technology and Engineering<br>Center for Space Utilization, CAS |
| Xinyuan Mao  | Technology and Engineering<br>Center for Space Utilization, CAS |

10:15-12:15 B12.56

**1057** Integral sliding mode based non-affine ascent trajectory tracking for solid rocket via differential inclusions

|                |                                                  |
|----------------|--------------------------------------------------|
| Zhengxiang Sun | Beijing Institute of Space Long<br>March Vehicle |
| Yipeng Liu     | Beijing Institute of Space Long<br>March Vehicle |
| Shiyao Li      | Beijing Institute of Space Long<br>March Vehicle |

10:15-12:15 B12.57

**1070** Orbit determination and observability analysis of NRHO spacecraft based on inter-satellite link

|             |                                                                 |
|-------------|-----------------------------------------------------------------|
| Yifan Duan  | Technology and Engineering<br>Center for Space Utilization, CAS |
| Keman Li    | Technology and Engineering<br>Center for Space Utilization, CAS |
| Ruotong Sun | Technology and Engineering<br>Center for Space Utilization, CAS |
| Xinyuan Mao | Technology and Engineering<br>Center for Space Utilization, CAS |

10:15-12:15 B12.58

**1129** Mixed sensitivity PS/T  $H^\infty$  control for attitude stabilization of reusable launch vehicle

|               |                                      |
|---------------|--------------------------------------|
| Jingheng Feng | Beijing Institute of Technology      |
| Ning Dong     | Beijing Institute of Technology      |
| Shihang Li    | China Academy of Space<br>Technology |
| Xiaoyu Lang   | Beijing Institute of Technology      |
| Xiangdong Liu | Beijing Institute of Technology      |

10:15-12:15 B12.59

**1187** Stochastic backstepping control barrier functions: a closed-form solution for attitude control on  $SO(3)$

|            |                          |
|------------|--------------------------|
| Junhao Hou | Shanghai Jiao Tong Univ. |
| Qiang Shen | Shanghai Jiao Tong Univ. |

10:15-12:15 B12.60

**1254** Orbital maneuver study of high-low thrust combined multimodal water propulsion for on-orbit servicing

|              |                                                |
|--------------|------------------------------------------------|
| Xinyun Chen  | Innovation Academy for<br>Microsatellites, CAS |
| Jiaqing Chen | Innovation Academy for<br>Microsatellites, CAS |
| Yuebo Wang   | Innovation Academy for<br>Microsatellites, CAS |

Liangjun Song Northwestern Polytechnical Univ.  
Tianshu Wang Tianjin Univ.

Zibing Qin Aether Space (Shanghai)  
Technology Co., Ltd.

Yonghe Zhang Innovation Academy for  
Microsatellites, CAS

Chengyu Ma Innovation Academy for

|                                                                                                                                                                           |                                                                                    |                                                                                                                                              |                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Microsatellites, CAS                                                                                                                                                      |                                                                                    | Keman Li                                                                                                                                     | Univ. of Chinese Academy of Sciences     |
| 10:15-12:15                                                                                                                                                               | B12.61                                                                             | Leizheng Shu                                                                                                                                 | Univ. of Chinese Academy of Sciences     |
| <b>1445</b> <i>Unpowered aircraft emergency landing: a new planning and guidance method</i>                                                                               |                                                                                    | Xinyuan Mao                                                                                                                                  | Univ. of Chinese Academy of Sciences     |
| Yanpeng Zhao                                                                                                                                                              | Air Force Medical Univ.                                                            | Wei Zhang                                                                                                                                    | Univ. of Chinese Academy of Sciences     |
| Guoshan Yu                                                                                                                                                                | Beijing Institute of Aerospace Control Devices                                     | 10:15-12:15                                                                                                                                  | B12.67                                   |
| Weiping Bu                                                                                                                                                                | Air Force Medical Univ.                                                            | <b>1671</b> <i>Trajectory optimization design for multi-stage launch vehicle based on adaptive genetic algorithm</i>                         |                                          |
| Yan Jiang                                                                                                                                                                 | Air Force Medical Univ.                                                            | Meijun Yue                                                                                                                                   | Space Engineering Univ.                  |
| Rong Lin                                                                                                                                                                  | Air Force Medical Univ.                                                            | Jianhua Wang                                                                                                                                 | Space Engineering Univ.                  |
| 10:15-12:15                                                                                                                                                               | B12.62                                                                             | Yuanwen Cai                                                                                                                                  | Space Engineering Univ.                  |
| <b>1481</b> <i>Domain randomization for adversarial robustness in orbital collision avoidance: a deep reinforcement learning approach</i>                                 |                                                                                    | Bingqin Liu                                                                                                                                  | Space Engineering Univ.                  |
| Pouya Latifiyan                                                                                                                                                           | Beihang Univ.                                                                      | Haoran Du                                                                                                                                    | Space Engineering Univ.                  |
| Aparna Dongale                                                                                                                                                            | MIT Academy of Engineering                                                         | Bohan Jia                                                                                                                                    | Space Engineering Univ.                  |
| Maria Chowdhury                                                                                                                                                           | Univ. of the Potomac                                                               | Siying Wang                                                                                                                                  | Space Engineering Univ.                  |
| Lucky Bose                                                                                                                                                                | Key Laboratory of Spacecraft Design Optimization & Dynamic Simulation Technologies | Zhen Wang                                                                                                                                    | Space Engineering Univ.                  |
| 10:15-12:15                                                                                                                                                               | B12.63                                                                             | Zetian Du                                                                                                                                    | Space Engineering Univ.                  |
| <b>1561</b> 太阳敏感器与陀螺组合定姿 EKF 协方差参数优化研究                                                                                                                                    |                                                                                    | 10:15-12:15                                                                                                                                  | B12.68                                   |
| Chengjie Tong                                                                                                                                                             | Innovation Academy for Microsatellites, CAS                                        | <b>1682</b> <i>Learning-based spacecraft attitude control with active pointing ultra-quiet platforms: a gaussian process approach</i>        |                                          |
| Han Du                                                                                                                                                                    | Shanghai Aerospace Systems Engineering Research Institute                          | Jiliang Song                                                                                                                                 | Beijing Institute of Control Engineering |
| Xiwang Xia                                                                                                                                                                | Innovation Academy for Microsatellites, CAS                                        | Liang Tang                                                                                                                                   | Beijing Institute of Control Engineering |
| Keke Zhang                                                                                                                                                                | Innovation Academy for Microsatellites, CAS                                        | Renjian Hao                                                                                                                                  | Beijing Institute of Control Engineering |
| 10:15-12:15                                                                                                                                                               | B12.64                                                                             | Jianfa Wu                                                                                                                                    | Beijing Institute of Control Engineering |
| <b>1582</b> <i>Orbital configuration analysis for high-precision cislunar time reference</i>                                                                              |                                                                                    | Zhiwei Hao                                                                                                                                   | Beijing Institute of Control Engineering |
| Shuanglin Li                                                                                                                                                              | Univ. of Chinese Academy of Sciences                                               | 10:15-12:15                                                                                                                                  | B12.69                                   |
| Rongchang Jiao                                                                                                                                                            | Univ. of Chinese Academy of Sciences                                               | <b>482</b> <i>An automated operation mode for ascent stage measurement of vehicle measuring based on two-level minimum functional blocks</i> |                                          |
| Jinghui Pu                                                                                                                                                                | Technology and Engineering Center for Space Utilization, CAS                       | Guanghui Ren                                                                                                                                 | Unit 63819 of the PLA                    |
| Xuzhi Li                                                                                                                                                                  | Technology and Engineering Center for Space Utilization, CAS                       | Long Chang                                                                                                                                   | Unit 63819 of the PLA                    |
| Yuling Geng                                                                                                                                                               | Beijing Aerospace Control Center                                                   | Zhiguo Tian                                                                                                                                  | Unit 63819 of the PLA                    |
| Zichen Huang                                                                                                                                                              | Beijing Aerospace Control Center                                                   | Xin Tu                                                                                                                                       | Unit 63819 of the PLA                    |
| Wenbin Wang                                                                                                                                                               | Technology and Engineering Center for Space Utilization, CAS                       | 10:15-12:15                                                                                                                                  | B12.70                                   |
| 10:15-12:15                                                                                                                                                               | B12.65                                                                             | <b>301</b> <i>Online intensity-aware registration of 3D imaging sonar point cloud</i>                                                        |                                          |
| <b>1600</b> <i>Multi-satellite control strategy of configuration establishing for high earth orbit constellations with electric propulsion based on thrust arc offset</i> |                                                                                    | Shiqi Che                                                                                                                                    | Beihang Univ.                            |
| Yue Liu                                                                                                                                                                   | DFH Satellite Co., Ltd.                                                            | Wenxin Liu                                                                                                                                   | Beihang Univ.                            |
| Lipeng Chai                                                                                                                                                               | DFH Satellite Co., Ltd.                                                            | Jiaxu Pi                                                                                                                                     | Beihang Univ.                            |
| Minghu Li                                                                                                                                                                 | DFH Satellite Co., Ltd.                                                            | Yijie Liu                                                                                                                                    | Beihang Univ.                            |
| Xi Cai                                                                                                                                                                    | DFH Satellite Co., Ltd.                                                            | Fa Chen                                                                                                                                      | Suzhou Soundtech Oceanic Instrument Ltd. |
| Mingying Huo                                                                                                                                                              | Harbin Institute of Technology                                                     | Bin Qian                                                                                                                                     | Suzhou Soundtech Oceanic Instrument Ltd. |
| Ming Li                                                                                                                                                                   | DFH Satellite Co., Ltd.                                                            | Lei Guo                                                                                                                                      | Beihang Univ.                            |
| 10:15-12:15                                                                                                                                                               | B12.66                                                                             | 10:15-12:15                                                                                                                                  | B12.71                                   |
| <b>1601</b> <i>Improving navigation performance for geostationary orbit users based on inter-satellite links</i>                                                          |                                                                                    | <b>713</b> <i>Heave motion measurement algorithm with lever-arm compensation for off-center monitoring points on marine platforms</i>        |                                          |
|                                                                                                                                                                           |                                                                                    | Xiaofeng Wei                                                                                                                                 | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | Wei Gao                                                                                                                                      | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | Yiming Lu                                                                                                                                    | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | Baojin Ping                                                                                                                                  | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | Hong Zhu                                                                                                                                     | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | Feng Shen                                                                                                                                    | Harbin Institute of Technology           |
|                                                                                                                                                                           |                                                                                    | 10:15-12:15                                                                                                                                  | B12.72                                   |
|                                                                                                                                                                           |                                                                                    | <b>981</b> 冷原子干涉角速度测量光路系统设计与实现                                                                                                               |                                          |
|                                                                                                                                                                           |                                                                                    | Zexin Wang                                                                                                                                   | Division of Mechanics and                |

|                                                                                                                                  |                                                                                |                                                 |                                                    |                                  |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------|----------------------------------|
| Wen Ye                                                                                                                           | Acoustics Metrology, National Institute of Metrology                           | Fangzhou Jia                                    | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  | Division of Mechanics and Acoustics Metrology, National Institute of Metrology | Qunli Xia                                       | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Yangxin Liu                                     | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Qiuqiu Wen                                      | Beijing Institute of Technology                    |                                  |
| 10:15-12:15                                                                                                                      |                                                                                | B12.79                                          |                                                    |                                  |
| 395 A multi-constrained predictor-corrector guidance method for terminal velocity control                                        |                                                                                |                                                 |                                                    |                                  |
| Wenjie Xu                                                                                                                        | Huazhong Univ. of Science and Technology                                       | Haoyuan Li                                      | Xi'an Modern Control Technology Research Institute |                                  |
|                                                                                                                                  |                                                                                | Yajun Li                                        | Xi'an Modern Control Technology Research Institute |                                  |
| Jun Cheng                                                                                                                        | Huazhong Institute of Electro-Optics                                           | Shihao Xu                                       | Xi'an Modern Control Technology Research Institute |                                  |
|                                                                                                                                  |                                                                                | Jing Lu                                         | Xi'an Modern Control Technology Research Institute |                                  |
|                                                                                                                                  |                                                                                | Yutan Yan                                       | Xi'an Modern Control Technology Research Institute |                                  |
|                                                                                                                                  |                                                                                | 10:15-12:15                                     |                                                    | B12.80                           |
| 555 Time-varying weighting function-based guidance law for maneuvering target interception                                       |                                                                                |                                                 |                                                    |                                  |
| 1473                                                                                                                             |                                                                                | Xin Li                                          | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Qiuqiu Wen                                      | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Xiangdong Liu                                   | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Yuxiang Chang                                   | Beijing Institute of Technology                    |                                  |
| 10:15-12:15                                                                                                                      |                                                                                | B12.81                                          |                                                    |                                  |
| 605 Impact angle constrained terminal guidance method based on iterative velocity prediction                                     |                                                                                |                                                 |                                                    |                                  |
| Terrain matching region selection algorithm based on contrastive clustering                                                      |                                                                                | Junjie Ai                                       | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Qiuqiu Wen                                      | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Zheng Liu                                       | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | Jiahui Zhang                                    | Beijing Institute of Technology                    |                                  |
| Kaifeng Hu                                                                                                                       | Huazhong University of Science and Technology                                  | Wenjie Wang                                     | Beijing Institute of Technology                    |                                  |
|                                                                                                                                  |                                                                                | 10:15-12:15                                     |                                                    | B12.82                           |
| 644 In-flight alignment and integrated navigation algorithm of hypervelocity projectile in the launch-centered earth-fixed frame |                                                                                |                                                 |                                                    |                                  |
| Hai Xu                                                                                                                           |                                                                                | Huazhong University of Science and Technology   | Kai Chen                                           | Northwestern Polytechnical Univ. |
|                                                                                                                                  | Sicheng Yang                                                                   |                                                 | Northwestern Polytechnical Univ.                   |                                  |
|                                                                                                                                  | Pengli Wu                                                                      |                                                 | Northwestern Polytechnical Univ.                   |                                  |
|                                                                                                                                  | Jinlong Song                                                                   |                                                 | Naval Univ. of Engineering                         |                                  |
| Sheng Zhong                                                                                                                      | Huazhong University of Science and Technology                                  | Xiangping Li                                    | Naval Univ. of Engineering                         |                                  |
|                                                                                                                                  |                                                                                | Yongchao Wang                                   | Northwestern Polytechnical Univ.                   |                                  |
| 10:15-12:15                                                                                                                      |                                                                                | B12.83                                          |                                                    |                                  |
| 683 Application of particle swarm-pseudospectral hybrid optimization strategy in solving the footprints of high-speed vehicle    |                                                                                |                                                 |                                                    |                                  |
| 1202 Crawling control of underwater quadruped robots on uneven terrain                                                           |                                                                                | Chengzhi Zeng                                   | Northwestern Polytechnical Univ.                   |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.84                                          |                                                    |                                  |
| 712 Fuzzy overload allocation method for blended control interceptor with improved PSO algorithm                                 |                                                                                |                                                 |                                                    |                                  |
| 1640 Predefined-time backstepping sliding mode control for AUV depth                                                             |                                                                                | Jinlong Zhao                                    | Northwestern Polytechnical Univ.                   |                                  |
|                                                                                                                                  |                                                                                | Shaozheng Feng                                  | Northwestern Polytechnical Univ.                   |                                  |
|                                                                                                                                  |                                                                                | Jun Zhou                                        | Northwestern Polytechnical Univ.                   |                                  |
|                                                                                                                                  |                                                                                | 10:15-12:15                                     |                                                    | B12.85                           |
| 308 Residual PINN for cooperative guidance with FOV-constrained interception                                                     |                                                                                |                                                 |                                                    |                                  |
| Guanqiao Chen                                                                                                                    |                                                                                | Wuhan Second Ship Design and Research Institute |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                |                                                 | B12.76                                             |                                  |
| Kang Zhang                                                                                                                       | Wuhan Second Ship Design and Research Institute                                |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.77                                          |                                                    |                                  |
| 277 Aerodynamic parametric improvement and multibody inertial-coupling modeling of a variable-sweep flight vehicle               |                                                                                |                                                 |                                                    |                                  |
| Zhang Hao                                                                                                                        | Wuhan Second Ship Design and Research Institute                                |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.78                                          |                                                    |                                  |
| 308 Residual PINN for cooperative guidance with FOV-constrained interception                                                     |                                                                                |                                                 |                                                    |                                  |
| Xiawei Guan                                                                                                                      | Wuhan Second Ship Design and Research Institute                                |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| Haoyu Lin                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
|                                                                                                                                  |                                                                                |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Haorui Yang                                                                                                                      | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.75                                          |                                                    |                                  |
| 1202 Crawling control of underwater quadruped robots on uneven terrain                                                           |                                                                                |                                                 |                                                    |                                  |
| Yilu Wang                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| Tianxiao Luo                                                                                                                     | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| Yixiao Wang                                                                                                                      | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| Bailu Pan                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| Zhen Li                                                                                                                          | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.74                                          |                                                    |                                  |
| 1473 Terrain matching region selection algorithm based on contrastive clustering                                                 |                                                                                |                                                 |                                                    |                                  |
| 10:15-12:15                                                                                                                      | B12.73                                                                         |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Haoyu Lin                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Haorui Yang                                                                                                                      | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Yilu Wang                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Tianxiao Luo                                                                                                                     | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Yixiao Wang                                                                                                                      | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Bailu Pan                                                                                                                        | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |
| Zhen Li                                                                                                                          | Beihang Univ.                                                                  |                                                 |                                                    |                                  |
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| 10:15-12:15                                                                                                                      |                                                                                | B12.73                                          |                                                    |                                  |
| 1245 Deep sea precise positioning augmented by large LEO communication constellations                                            |                                                                                |                                                 |                                                    |                                  |

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| <b>830</b> <i>Meta-learning-based impact angle control guidance with accurate time-to-go estimation</i>                          |                                                   | Wengui Lei                                                                                                                            | Beihang Univ.                                          |
| Chenxing Wang                                                                                                                    | Harbin Institute of Technology                    | 10:15-12:15                                                                                                                           | B12.93                                                 |
| Yueyong Lv                                                                                                                       | Harbin Institute of Technology                    | <b>1371</b> <i>A hardware accelerator for rapid computation of line-of-sight angular rates in roll-pitch seekers</i>                  |                                                        |
| Pengyu Wang                                                                                                                      | Harbin Institute of Technology                    | Zhenzhou Jia                                                                                                                          | Beijing Microelectronic Technology Institute           |
| Yuxin Yang                                                                                                                       | Harbin Institute of Technology                    | Mengwen Fan                                                                                                                           | Beijing Microelectronic Technology Institute           |
| 10:15-12:15                                                                                                                      | B12.86                                            | Jian Zhang                                                                                                                            | Beijing Microelectronic Technology Institute           |
| <b>897</b> <i>Analytical reentry guidance method considering terminal flight capability limitation</i>                           |                                                   | 10:15-12:15                                                                                                                           | B12.94                                                 |
| Yangyang Wan                                                                                                                     | Beijing Institute of Technology                   | <b>1585</b> <i>Time-coordinated reentry guidance for multiple no-fly zone avoidance based on a range-determined strategy</i>          |                                                        |
| Jie Guo                                                                                                                          | Beijing Institute of Technology                   | Mingran Zheng                                                                                                                         | Beijing Institute of Technology                        |
| Cheng Fu                                                                                                                         | Beijing Institute of Technology                   | Jie Guo                                                                                                                               | Beijing Institute of Technology                        |
| Zhongzhong Zheng                                                                                                                 | Beijing Institute of Technology                   | Fangyu Jia                                                                                                                            | Beijing Institute of Technology                        |
| Shengjing Tang                                                                                                                   | Beijing institute of Technology                   | Shengjing Tang                                                                                                                        | Beijing Institute of Technology                        |
| 10:15-12:15                                                                                                                      | B12.87                                            | 10:15-12:15                                                                                                                           | B12.95                                                 |
| <b>34</b> <i>Design of longitudinal stability augmentation control law for high-aspect-ratio over-the-wing engine UAV</i>        |                                                   | <b>1697</b> <i>Intelligent 3D evasion against dual non-cooperative aerial vehicles: an energy-efficient optimal guidance approach</i> |                                                        |
| Haogang Zhao                                                                                                                     | AVIC First Aircraft Design and Research Institute | Taiyuan Liang                                                                                                                         | China Academy of Launch Vehicle Technology             |
| Jingjing He                                                                                                                      | AVIC First Aircraft Design and Research Institute | Yin Pei                                                                                                                               | China Academy of Launch Vehicle Technology             |
| Huiwen Han                                                                                                                       | AVIC Chinese Flight Test Establishment            | Ben Yang                                                                                                                              | China Academy of Launch Vehicle Technology             |
| 10:15-12:15                                                                                                                      | B12.88                                            | Keqin Chen                                                                                                                            | China Academy of Launch Vehicle Technology             |
| <b>1052</b> <i>A rapid full-course initial trajectory planning method for hypersonic reentry vehicles</i>                        |                                                   | 10:15-12:15                                                                                                                           | B12.96                                                 |
| Peiyu Cao                                                                                                                        | Tsinghua Univ.                                    | <b>167</b> 一种 RLV 速度控制及燃料消耗量预估方法                                                                                                      |                                                        |
| Yanguang Fu                                                                                                                      | Tsinghua Univ.                                    | Jiahao Gan                                                                                                                            | Beihang Univ.                                          |
| Qing Li                                                                                                                          | Tsinghua Univ.                                    | Yuanpeng Fang                                                                                                                         | AVIC Chengdu Aircraft Design and Research Institute    |
| 10:15-12:15                                                                                                                      | B12.89                                            | Jin Zhang                                                                                                                             | AVIC Chengdu Aircraft Design and Research Institute    |
| <b>1054</b> <i>An analytical intermediate-distance constrained guidance law with multi-state convergence</i>                     |                                                   | 10:15-12:15                                                                                                                           | B12.97                                                 |
| Yuxiang Chang                                                                                                                    | Beijing Institute of Technology                   | <b>338</b> 一种基于图像的视觉伺服自主拦截无人机                                                                                                         |                                                        |
| Qiuqiu Wen                                                                                                                       | Beijing Institute of Technology                   | Zhongxiang Bao                                                                                                                        | Beihang Univ.                                          |
| Xin Li                                                                                                                           | Beijing Institute of Technology                   | Jianglong Yu                                                                                                                          | Beihang Univ.                                          |
| Jiahui Zhang                                                                                                                     | Beijing Institute of Technology                   | Xiawang Dong                                                                                                                          | Beihang Univ.                                          |
| Shaoyue He                                                                                                                       | Beijing Institute of Technology                   | 10:15-12:15                                                                                                                           | B12.98                                                 |
| 10:15-12:15                                                                                                                      | B12.90                                            | <b>370</b> <i>Analysis of the influence mechanism of initial altitude error on navigation error</i>                                   |                                                        |
| <b>1120</b> <i>An anti-jamming STAP algorithm for GNSS receivers in attitude disturbance state</i>                               |                                                   | Penglei Zhao                                                                                                                          | Beijing Institute of Astronautical Systems Engineering |
| Haiyang Wang                                                                                                                     | Rocket Force Univ. of Engineering                 | Yimeng Gao                                                                                                                            | Beijing Institute of Astronautical Systems Engineering |
| Qian Chen                                                                                                                        | Rocket Force Univ. of Engineering                 | 10:15-12:15                                                                                                                           | B12.99                                                 |
| Zhiyong Yu                                                                                                                       | Rocket Force Univ. of Engineering                 | <b>511</b> <i>Convergence-guaranteed homing trajectory planning for a parafoil system using convex optimization</i>                   |                                                        |
| Zhicheng Yao                                                                                                                     | Rocket Force Univ. of Engineering                 | Jialin Sun                                                                                                                            | Beijing Institute of Space Mechanics and Electricity   |
| Bo Hou                                                                                                                           | Rocket Force Univ. of Engineering                 | Zheng Li                                                                                                                              | Beihang Univ.                                          |
| Linlin Li                                                                                                                        | Rocket Force Univ. of Engineering                 | Yueyang Liu                                                                                                                           | Beihang Univ.                                          |
| 10:15-12:15                                                                                                                      | B12.91                                            | Lin Liu                                                                                                                               | Beijing Institute of Space Mechanics and Electricity   |
| <b>1219</b> <i>A hierarchical guidance framework for impact time and angle control using model predictive static programming</i> |                                                   | 10:15-12:15                                                                                                                           | B12.100                                                |
| Zhiyu Liu                                                                                                                        | Beihang Univ.                                     | <b>1271</b> <i>Robust trajectory optimization based on covariance control under uncertainty</i>                                       |                                                        |
| Wanchun Chen                                                                                                                     | Beihang Univ.                                     | Zhaoyu Yang                                                                                                                           | Beihang Univ.                                          |
| 10:15-12:15                                                                                                                      | B12.92                                            | Wanchun Chen                                                                                                                          | Beihang Univ.                                          |
| <b>1271</b> <i>Robust trajectory optimization based on covariance control under uncertainty</i>                                  |                                                   | Xiang Li                                                                                                                              | Beihang Univ.                                          |

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| <b>447</b> 基于多头自注意力机制与分层强化学习的空战机动决策方法                                                                                                                  |                                                        | Jianshu Gao                                                                                                                  | Civil Aviation Univ. of China                       |
| Linbo Huang                                                                                                                                            | Harbin Engineering Univ                                | Wenqing Xue                                                                                                                  | Civil Aviation Univ. of China                       |
| Lei Zhang                                                                                                                                              | AVIC Shenyang Aircraft Design and Research Institute   | 10:15-12:15                                                                                                                  | B12.107                                             |
| <b>648</b> DDPG-based auto-tuning of PID parameters for hypersonic vehicle attitude control                                                            |                                                        | <b>906</b> Attractive manifold-based navigation for automated guided vehicles                                                |                                                     |
| Zhentaio Bian                                                                                                                                          | Beijing Institute of Technology                        | Enhao Zeng                                                                                                                   | Beihang Univ.                                       |
| Qunli Xia                                                                                                                                              | Beijing Institute of Technology                        | Xinyu Xu                                                                                                                     | Beihang Univ.                                       |
| Yangxin Liu                                                                                                                                            | Beijing Institute of Technology                        | Gennady Veselov                                                                                                              | Southern Federal Univ.                              |
| Puyang Qi                                                                                                                                              | Beijing Institute of Technology                        | Zeyu Wang                                                                                                                    | Beihang Univ.                                       |
| 10:15-12:15                                                                                                                                            | B12.101                                                | Hanting Fang                                                                                                                 | Beihang Univ.                                       |
| <b>799</b> GPS L1C 信号模拟器设计与闭环收发实验验证                                                                                                                    |                                                        | Lingling Wang                                                                                                                | Beihang Univ.                                       |
| Yafeng Li                                                                                                                                              | Beijing Information Science and Technology University  | Li Fu                                                                                                                        | Beihang Univ.                                       |
| Zhen Shen                                                                                                                                              | Beijing Information Science and Technology University  | 10:15-12:15                                                                                                                  | B12.108                                             |
| Yi Ji                                                                                                                                                  | Beijing Information Science and Technology University  | <b>92</b> Time-varying formation coordinated and tracking control based on prescribed-time sliding mode disturbance observer |                                                     |
| Junfang Fan                                                                                                                                            | Beijing Information Science and Technology University  | Xin Du                                                                                                                       | Beihang Univ.                                       |
| 10:15-12:15                                                                                                                                            | B12.103                                                | Yicong Lin                                                                                                                   | Beihang Univ.                                       |
| <b>1177</b> Intelligent control of hypersonic flight vehicles based on additive state decomposition                                                    |                                                        | Chaoyang Dong                                                                                                                | Beihang Univ.                                       |
| Yu Wang                                                                                                                                                | Xi'an Univ. of Posts & Telecommunications              | Zhenyuan Song                                                                                                                | Beihang Univ.                                       |
| Jinrui Ren                                                                                                                                             | Xi'an Univ. of Posts & Telecommunications              | 10:15-12:15                                                                                                                  | B12.109                                             |
| Yuan Zheng                                                                                                                                             | Xi'an Univ. of Posts & Telecommunications              | <b>185</b> Cooperative control for spacecraft swarms under byzantine attacks and input constraints                           |                                                     |
| 10:15-12:15                                                                                                                                            | B12.104                                                | Dexin Jiao                                                                                                                   | Sun Yat-sen Univ.                                   |
| <b>1538</b> Pseudo-spectral differentiation for control rate constrained reentry trajectory optimization                                               |                                                        | Yu Zhang                                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute |
| Yubo Qin                                                                                                                                               | Aerospace Technology Institute of CARD C               | Mingjun Liu                                                                                                                  | Sun Yat-sen Univ.                                   |
| Chao Ou                                                                                                                                                | Aerospace Technology Institute of CARD C               | Haizhao Liang                                                                                                                | Sun Yat-sen Univ.                                   |
| Huajun Zhu                                                                                                                                             | State Key Laboratory of Aerodynamics                   | 10:15-12:15                                                                                                                  | B12.110                                             |
| Hailong Liang                                                                                                                                          | Aerospace Technology Institute of CARD C               | <b>266</b> Master-slave synchronous flight control for a three-module combined multi-body UAV in fixed-wing mode             |                                                     |
| Zichen Tang                                                                                                                                            | Aerospace Technology Institute of CARD C               | Zhicong Shao                                                                                                                 | Beihang Univ.                                       |
| 10:15-12:15                                                                                                                                            | B12.105                                                | Xi Huang                                                                                                                     | Beihang Univ.                                       |
| <b>256</b> 惯性行人导航系统误差分析及在线标定方法                                                                                                                         |                                                        | Zewen sun                                                                                                                    | Beihang Univ.                                       |
| Hanlin Zhang                                                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute | Pengyuan Qi                                                                                                                  | Beihang Univ.                                       |
| Min Guo                                                                                                                                                | AVIC Xi'an Flight Automatic Control Research Institute | 10:15-12:15                                                                                                                  | B12.111                                             |
| Huaxiang Yi                                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute | <b>290</b> Ratio-of-distance rigidity based formation control under actuator smoothness constraints                          |                                                     |
| Junling Zhang                                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute | Wei Luo                                                                                                                      | Rocket Force Univ. of Engineering                   |
| 10:15-12:15                                                                                                                                            | B12.106                                                | Tao Zhang                                                                                                                    | Tsinghua Univ.                                      |
| <b>501</b> Geometry-aware minimum-clearance estimation and delay-compensated predictive braking for final aircraft docking of airport special vehicles |                                                        | Jiawei Zhao                                                                                                                  | Rocket Force Univ. of Engineering                   |
|                                                                                                                                                        |                                                        | 10:15-12:15                                                                                                                  | B12.112                                             |
|                                                                                                                                                        |                                                        | <b>523</b> A segregation control method for UAV swarms based on coupled differential equations                               |                                                     |
|                                                                                                                                                        |                                                        | Yanfei Zhou                                                                                                                  | Army Engineering Univ. of PLA                       |
|                                                                                                                                                        |                                                        | Peng Xu                                                                                                                      | Army Engineering Univ. of PLA                       |
|                                                                                                                                                        |                                                        | Jintao Liu                                                                                                                   | Army Engineering Univ. of PLA                       |
|                                                                                                                                                        |                                                        | Tingting Bai                                                                                                                 | Army Engineering Univ. of PLA                       |
|                                                                                                                                                        |                                                        | Zebo Li                                                                                                                      | Army Engineering Univ. of PLA                       |
|                                                                                                                                                        |                                                        | Jingwei Dong                                                                                                                 | Army Engineering Univ. of PLA                       |
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|                                                                                                                                                        |                                                        | <b>573</b> Numerical analysis of UAV electro-optical pod system under error of shafting                                      |                                                     |
|                                                                                                                                                        |                                                        | Zi Zhao                                                                                                                      | Shaanxi Institute of Technology                     |
|                                                                                                                                                        |                                                        | Linna Zhang                                                                                                                  | Shaanxi Institute of Technology                     |
|                                                                                                                                                        |                                                        | 10:15-12:15                                                                                                                  | B12.114                                             |
|                                                                                                                                                        |                                                        | <b>575</b> Fuzzy comprehensive evaluation analysis for two axis servo turntable                                              |                                                     |

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| Linna Zhang                                                                                                                                      | Shaanxi Institute of Technology               | Hao Liu                                                                                                                                | Lunan Institute of Technician                                                               |
| Zi Zhao                                                                                                                                          | Shaanxi Institute of Technology               | 10:15-12:15                                                                                                                            | B12.120                                                                                     |
| Daiwei Gan                                                                                                                                       | Shaanxi Institute of Technology               | <b>1631</b> Collision avoidance for underactuated unmanned surface vehicles based on enhanced error constraints                        |                                                                                             |
| 10:15-12:15                                                                                                                                      | B12.115                                       | Yuchao Wang                                                                                                                            | Harbin Engineering Univ.                                                                    |
| <b>933</b> Distributed group tracking and reactive obstacle avoidance for UAV swarms in multi-target scenarios                                   |                                               | Tuoxin Chen                                                                                                                            | Harbin Engineering Univ.                                                                    |
| Shihan Chen                                                                                                                                      | Beihang Univ.                                 | Shiquan Zhao                                                                                                                           | Harbin Engineering Univ.                                                                    |
| Jiang Zhao                                                                                                                                       | Beihang Univ.                                 | Huixuan Fu                                                                                                                             | Harbin Engineering Univ.                                                                    |
| Pei Chi                                                                                                                                          | Beihang Univ.                                 | 10:15-12:15                                                                                                                            | B12.121                                                                                     |
| Yingxun Wang                                                                                                                                     | Beihang Univ.                                 | <b>508</b> Air-Ground cooperative navigation for sensor-less UGVs based on UAV active perception                                       |                                                                                             |
| 10:15-12:15                                                                                                                                      | B12.116                                       | Jiang Zhao                                                                                                                             | Beihang Univ.                                                                               |
| <b>1332</b> Cooperative collision avoidance guidance law for multiple missiles based on control barrier function                                 |                                               | Minghao Pi                                                                                                                             | Beihang Univ.                                                                               |
| Zhihan Liu                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | Pei Chi                                                                                                                                | Beihang Univ.                                                                               |
| Xiaoming chen                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics | Yingxun Wang                                                                                                                           | Beihang Univ.                                                                               |
| Yuxuan Chu                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | 10:15-12:15                                                                                                                            | B12.122                                                                                     |
| Junxiao Li                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | <b>566</b> Vision-Based UAV control with spatio-temporal attention mechanism under occlusion constraints                               |                                                                                             |
| 10:15-12:15                                                                                                                                      | B12.116                                       | Mengchen Sun                                                                                                                           | Beihang Univ.                                                                               |
| <b>1332</b> Cooperative collision avoidance guidance law for multiple missiles based on control barrier function                                 |                                               | Jiang Zhao                                                                                                                             | Beihang Univ.                                                                               |
| Zhihan Liu                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | Pei Chi                                                                                                                                | Beihang Univ.                                                                               |
| Xiaoming Chen                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics | Yingxun Wang                                                                                                                           | Beihang Univ.                                                                               |
| Yuxuan Chu                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | 10:15-12:15                                                                                                                            | B12.123                                                                                     |
| Junxiao Li                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics | <b>684</b> 融合分层课程学习与混合策略池采样的多智能体空战博弈决策方法                                                                                               |                                                                                             |
| 10:15-12:15                                                                                                                                      | B12.117                                       | Yang Yang                                                                                                                              | Beihang Univ.                                                                               |
| <b>1336</b> Local consensus of discrete-time second-order multi-agent systems with input saturation and fixed communication delay                |                                               | Zhihao Lyu                                                                                                                             | Beihang Univ.                                                                               |
| Qi Fu                                                                                                                                            | Jiangsu Univ. of Science and Technology       | Zheng Zhang                                                                                                                            | Beihang Univ.                                                                               |
| Changjiang Li                                                                                                                                    | Jiangsu Univ. of Science and Technology       | Haibing Chen                                                                                                                           | Beihang Univ.                                                                               |
| Zhaoping Du                                                                                                                                      | Jiangsu Univ. of Science and technology       | 10:15-12:15                                                                                                                            | B12.124                                                                                     |
| Jianzhen Li                                                                                                                                      | Jiangsu Univ. of Science and Technology       | <b>1107</b> Energy-Optimal waypoint-oriented trajectory planning for solar-powered UAV based on multi-objective reinforcement learning |                                                                                             |
| 10:15-12:15                                                                                                                                      | B12.118                                       | Tichao Xu                                                                                                                              | Institute of Engineering Thermophysics, CAS                                                 |
| <b>1435</b> Indirect manifold based two-time-scales consensus                                                                                    |                                               | Jingrong Fang                                                                                                                          | Institute of Engineering Thermophysics, CAS                                                 |
| Jialong Chen                                                                                                                                     | Guangxi Univ.                                 | Wenyue Meng                                                                                                                            | Institute of Engineering Thermophysics, CAS                                                 |
| Linglan Kang                                                                                                                                     | Guangxi Univ.                                 | Jian Zhang                                                                                                                             | Institute of Engineering Thermophysics, CAS                                                 |
| Yang Wu                                                                                                                                          | Guangxi Univ.                                 | 10:15-12:15                                                                                                                            | B12.125                                                                                     |
| 10:15-12:15                                                                                                                                      | B12.119                                       | <b>1304</b> Low-Dimensional evasion strategy for multiple flight vehicles based on MAH-MAPPO                                           |                                                                                             |
| <b>1610</b> Robust control and tension allocation for multi-UAV slung-payload transport subject to composite disturbances and safety constraints |                                               | Bowei Yan                                                                                                                              | Harbin Institute of Technology                                                              |
| Hualin Qiu                                                                                                                                       | Southwest Univ. of Science and Technology     | Xiaojun Ban                                                                                                                            | Harbin Institute of Technology                                                              |
| Yuying GUO                                                                                                                                       | Southwest Univ. of Science and Technology     | Runle Du                                                                                                                               | National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics |
| Youmin Zhang                                                                                                                                     | Concordia Univ.                               | 10:15-12:15                                                                                                                            | B12.126                                                                                     |
|                                                                                                                                                  |                                               | <b>1605</b> A machine vision approach for gear end-face defect inspection and automatic sorting                                        |                                                                                             |
|                                                                                                                                                  |                                               | Yifeng Zhang                                                                                                                           | Jingchu Univ. of Technology                                                                 |
|                                                                                                                                                  |                                               | Weijie Jia                                                                                                                             | Jingchu Univ. of Technology                                                                 |
|                                                                                                                                                  |                                               | Jing Yang                                                                                                                              | Jingchu Univ. of Technology                                                                 |
|                                                                                                                                                  |                                               | Li Zhang                                                                                                                               | Jingchu Univ. of Technology                                                                 |
|                                                                                                                                                  |                                               | 10:15-12:15                                                                                                                            | B12.127                                                                                     |

|                                                                                                                            |                                                               |                                                                                                                                    |                                                                               |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>432 Cooperative search and tracking for UAV swarm via mode-conditioned MPPI</b>                                         |                                                               |                                                                                                                                    | Control Institute                                                             |
| Yichen Li                                                                                                                  | Zhejiang Univ.                                                | Zhentao Xu                                                                                                                         | Beijing Aerospace Automatic                                                   |
| Wenjie Zhao                                                                                                                | Zhejiang Univ.                                                |                                                                                                                                    | Control Institute                                                             |
| 10:15-12:15                                                                                                                | B12.128                                                       | Huixia Wang                                                                                                                        | Beijing Aerospace Automatic                                                   |
| <b>578 Integrated global-local path planning for UAVs using AAMH and gradient-aware DWA</b>                                |                                                               |                                                                                                                                    | Control Institute                                                             |
| Yunshang Qu                                                                                                                | Northwestern Polytechnical Univ.                              | Mingming Shi                                                                                                                       | Sichuan Univ.                                                                 |
| Ruimin Jiang                                                                                                               | Northwestern Polytechnical Univ.                              | 10:15-12:15                                                                                                                        | B12.135                                                                       |
| Bin Zhao                                                                                                                   | Northwestern Polytechnical Univ.                              | <b>1528 A hierarchical complete coverage path planning framework based on perception-aware BCD and GTSP</b>                        |                                                                               |
| Qing Lu                                                                                                                    | Northwestern Polytechnical Univ.                              | Zhaoyang Wei                                                                                                                       | Beijing Univ. of Technology                                                   |
| 10:15-12:15                                                                                                                | B12.129                                                       | Xiangyin Zhang                                                                                                                     | Beijing Univ. of Technology                                                   |
| <b>671 Dynamic task allocation for heterogeneous UAV-UGV systems based on a particle swarm optimization</b>                |                                                               | 10:15-12:15                                                                                                                        | B12.136                                                                       |
| Jingzhi Yue                                                                                                                | Beijing Information Science and Technology Univ.              | <b>1602 Multi-Drone path planning in complex three-dimensional terrain based on improved dwarf mongoose optimization algorithm</b> |                                                                               |
| Chengyu Gu                                                                                                                 | Beijing Information Science and Technology Univ.              | Jiayi Hu                                                                                                                           | Nanchang Hangkong Univ.                                                       |
| Xiaobin Xu                                                                                                                 | Beijing Information Science and Technology Univ.              | Liu Chang                                                                                                                          | Nanchang Hangkong Univ.                                                       |
| Sixing Zhang                                                                                                               | Beijing Information Science and Technology Univ.              | Hao Chen                                                                                                                           | Nanchang Hangkong Univ.                                                       |
| Shiyao Lin                                                                                                                 | China Research and Development Academy of Machinery Equipment | Leqi Jiang                                                                                                                         | Nanchang Hangkong Univ.                                                       |
| 10:15-12:15                                                                                                                | B12.130                                                       | Li Ting                                                                                                                            | Nanchang Hangkong Univ.                                                       |
| <b>714 Multi-UAV cooperative anti-submarine search and task allocation in static probability fields</b>                    |                                                               | Xiaoyu Jiang                                                                                                                       | Nanchang Hangkong Univ.                                                       |
| Jiang Zhao                                                                                                                 | Beihang Univ.                                                 | Xingyi Zhou                                                                                                                        | Nanchang Hangkong Univ.                                                       |
| Mengyuan Gao                                                                                                               | Beihang Univ.                                                 | 10:15-12:15                                                                                                                        | B12.137                                                                       |
| Mengqi Li                                                                                                                  | Beihang Univ.                                                 | <b>104 基于 CMS-PSO 的多无人机协同路径规划研究</b>                                                                                                |                                                                               |
| Pei Chi                                                                                                                    | Beihang Univ.                                                 | Chao Jiang                                                                                                                         | AVIC Xi'an Flight Automatic                                                   |
| Yingxun Wang                                                                                                               | Beihang Univ.                                                 |                                                                                                                                    | Control Research Institute                                                    |
| 10:15-12:15                                                                                                                | B12.131                                                       | Yuwei Cui                                                                                                                          | AVIC Xi'an Flight Automatic                                                   |
| <b>731 Task allocation for heterogeneous UAV swarms based on improved ant colony optimization</b>                          |                                                               | Wenjin Liu                                                                                                                         | AVIC Xi'an Flight Automatic                                                   |
| Shuo Zhang                                                                                                                 | Univ. of Jinan                                                |                                                                                                                                    | Control Research Institute                                                    |
| Meng Li                                                                                                                    | Univ. of Jinan                                                | 10:15-12:15                                                                                                                        | B12.138                                                                       |
| Qicheng Liu                                                                                                                | Univ. of Jinan                                                | <b>472 A dynamic swarming strategy for cooperative pursuit in heterogeneous obstacle environments</b>                              |                                                                               |
| 10:15-12:15                                                                                                                | B12.132                                                       | Hang Liu                                                                                                                           | Beihang Univ.                                                                 |
| <b>1065 Multi-UAV underwater target search method based on NSGA-II</b>                                                     |                                                               | Yimin Deng                                                                                                                         | Beihang Univ.                                                                 |
| Pei Chi                                                                                                                    | Beihang Univ.                                                 | Zhihua Cui                                                                                                                         | Key Laboratory of Big Data Analysis and Parallel Computing of Shanxi Province |
| Mengqi Li                                                                                                                  | Beihang Univ.                                                 | Haibin Duan                                                                                                                        | Beihang Univ.                                                                 |
| Jiang Zhao                                                                                                                 | Beihang Univ.                                                 | 10:15-12:15                                                                                                                        | B12.139                                                                       |
| Yingxun Wang                                                                                                               | Beihang Univ.                                                 | <b>476 Finite-time flocking control for UAV swarms with a starling-inspired cuckoo-smale model</b>                                 |                                                                               |
| 10:15-12:15                                                                                                                | B12.133                                                       | Yuming Meng                                                                                                                        | Beihang Univ.                                                                 |
| <b>1124 Collaborative perception-based hierarchical distributed model predictive control for multi-UAV target tracking</b> |                                                               | Yang Yuan                                                                                                                          | Beihang Univ.                                                                 |
| Benqi Jiang                                                                                                                | Air Force Engineering Univ.                                   | Haibin Duan                                                                                                                        | Beihang Univ.                                                                 |
| Ruixuan Wei                                                                                                                | Air Force Engineering Univ.                                   | 10:15-12:15                                                                                                                        | B12.140                                                                       |
| Qirui Zhang                                                                                                                | Air Force Engineering Univ.                                   | <b>959 基于强化学习优化灰狼算法的卫星编队围捕任务</b>                                                                                                   |                                                                               |
| Chenkang Huang                                                                                                             | Air Force Engineering Univ.                                   | Ziyu Liu                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics                                 |
| Zhiyuan Liu                                                                                                                | People's Liberation Army of China                             | Yajie Ma                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics                                 |
| 10:15-12:15                                                                                                                | B12.134                                                       | Bin Jiang                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics                                 |
| <b>1492 Pollution area automatic boundary surveying flight planning of UAV group</b>                                       |                                                               | 10:15-12:15                                                                                                                        | B12.141                                                                       |
| Zheng Yao                                                                                                                  | Beijing Aerospace Automatic                                   | <b>1014 Multi-UAV trajectory planning for visibility-aware tracking in complex environments</b>                                    |                                                                               |
|                                                                                                                            |                                                               | Aiyang Yi                                                                                                                          | Beihang Univ.                                                                 |

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|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Pei Chi                                                                                                                                   | Beihang Univ.                                                  | combat decision and fault-tolerant control in games                                                                                          |                                                          |
| Jiang Zhao                                                                                                                                | Beihang Univ.                                                  | Xindi Wang                                                                                                                                   | Xi'an Modern Control Technology                          |
| Yingxun Wang                                                                                                                              | Beihang Univ.                                                  |                                                                                                                                              | Research Institute                                       |
| 10:15-12:15                                                                                                                               | B12.142                                                        | Zhenyu Ma                                                                                                                                    | Xi'an Modern Control Technology                          |
| <b>1039</b> <i>Simscape-Based dynamics model and control of a three-dof telescopic boom for aerial recovery</i>                           |                                                                |                                                                                                                                              | Research Institute                                       |
| Minbo Zhang                                                                                                                               | Xi'an Jiaotong Univ.                                           | CunYi Hu                                                                                                                                     | Xi'an Modern Control Technology                          |
| Chao Zhang                                                                                                                                | Xi'an Jiaotong Univ.                                           |                                                                                                                                              | Research Institute                                       |
| Jigen Sun                                                                                                                                 | Xi'an Jiaotong Univ.                                           | Haochun Miao                                                                                                                                 | Xi'an Modern Control Technology                          |
| Caiyao Yu                                                                                                                                 | Xi'an Jiaotong Univ.                                           |                                                                                                                                              | Research Institute                                       |
| 10:15-12:15                                                                                                                               | B12.143                                                        | Jinping Li                                                                                                                                   | Xi'an Modern Control Technology                          |
| <b>1522</b> <i>Leaderless and leader-follower practical finite-time consensus in discrete-time multi-agent systems</i>                    |                                                                |                                                                                                                                              | Research Institute                                       |
| Jing Tao                                                                                                                                  | Xinjiang Univ.                                                 | 10:15-12:15                                                                                                                                  | B12.150                                                  |
| Zhiyong Yu                                                                                                                                | Xinjiang Univ.                                                 | <b>322</b> <i>Study and experimental validation of guidance and decision-making technologies for the takeoff and landing of uavs on USVs</i> |                                                          |
| Haijun Jiang                                                                                                                              | Xinjiang Univ.                                                 | Jikang Zhong                                                                                                                                 | State Key Laboratory of Robotics and Intelligent Systems |
| 10:15-12:15                                                                                                                               | B12.144                                                        | Chaoxiong Huang                                                                                                                              | State Key Laboratory of Robotics and Intelligent Systems |
| <b>843</b> <i>Research on fixed-wing UAV formation control technology based on consensus theory and artificial potential field method</i> |                                                                | Yanchun Chang                                                                                                                                | State Key Laboratory of Robotics and Intelligent Systems |
| Zongheng Liao                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute           | Liying Yang                                                                                                                                  | State Key Laboratory of Robotics and Intelligent Systems |
| Kai Huang                                                                                                                                 | AVIC Shenyang Aircraft Design and Research Institute           | Peng Li                                                                                                                                      | State Key Laboratory of Robotics and Intelligent Systems |
| 10:15-12:15                                                                                                                               | B12.145                                                        | Yuqing He                                                                                                                                    | State Key Laboratory of Robotics and Intelligent Systems |
| <b>901</b> <i>A DGCNN-based method for UAV swarm spatial formation recognition</i>                                                        |                                                                | 10:15-12:15                                                                                                                                  | B12.151                                                  |
| Weiye Zhang                                                                                                                               | Univ. of Electronic Science and Technology of China            | <b>382</b> <i>An integrated flight/propulsion control strategy for aircraft with distributed electric propulsion</i>                         |                                                          |
| Xiaoping Chen                                                                                                                             | Univ. of Electronic Science and Technology of China            | Biao Wang                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics            |
| Wanting Li                                                                                                                                | AVIC Chengdu Aircraft Design and Research Institute            | Ziyang Zheng                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics            |
| Kangsong Wang                                                                                                                             | Univ. of Electronic Science and Technology of China            | Chaoying Tang                                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics            |
| Hui Liu                                                                                                                                   | AVIC Chengdu Aircraft Design and Research Institute            | 10:15-12:15                                                                                                                                  | B12.152                                                  |
| Xiaobo Ma                                                                                                                                 | AVIC Xi'an Aeronautics Computing Technology Research Institute | <b>592</b> <i>Trajectory prediction for maneuvering targets via multidimensional feature fusion</i>                                          |                                                          |
| 10:15-12:15                                                                                                                               | B12.146                                                        | Yulin Tang                                                                                                                                   | Beihang Univ.                                            |
| <b>177</b> <i>Collision-Free trajectory tracking for quadrotor UAVs via control barrier function and Kalman filtering</i>                 |                                                                | Kun Wu                                                                                                                                       | Beihang Univ.                                            |
| Haoqiang Liu                                                                                                                              | Southeast Univ.                                                | Gengchao Liu                                                                                                                                 | Beihang Univ.                                            |
| Ruijia Zhang                                                                                                                              | Southeast Univ.                                                | Jiayin Zhai                                                                                                                                  | Beihang Univ.                                            |
| Lu Kelin                                                                                                                                  | Southeast Univ.                                                | Wei Lan                                                                                                                                      | Beihang Univ.                                            |
| 10:15-12:15                                                                                                                               | B12.147                                                        | 10:15-12:15                                                                                                                                  | B12.153                                                  |
| <b>178</b> <i>Probabilistic guidance for unmanned aerial vehicle collision avoidance in the presence of intruder decision uncertainty</i> |                                                                | <b>749</b> <i>控制约束驱动的深度强化学习俯仰姿态控制律设计及鲁棒性验证</i>                                                                                               |                                                          |
| Yuqi Feng                                                                                                                                 | Southeast Univ.                                                | Haoyu Jiang                                                                                                                                  | Beihang Univ.                                            |
| Kelin Lu                                                                                                                                  | Southeast Univ.                                                | Zheng Zhang                                                                                                                                  | Beihang Univ.                                            |
| 10:15-12:15                                                                                                                               | B12.148                                                        | Haibing Chen                                                                                                                                 | Beihang Univ.                                            |
| <b>285</b> <i>Robust quadrotor control under extreme wind disturbances via continuous-time liquid neural networks</i>                     |                                                                | 10:15-12:15                                                                                                                                  | B12.154                                                  |
| Qiqi Li                                                                                                                                   | Guilin Univ. of Electronic Technology                          | <b>870</b> <i>Service-Oriented layered software architecture for UAV vehicle management systems</i>                                          |                                                          |
| Furong Jiang                                                                                                                              | Guilin Univ. of Electronic Technology                          | Xiangqian Xu                                                                                                                                 | AVIC, Xi'an Flight Automatic Control Research Institute  |
| Xiyan Sun                                                                                                                                 | Guilin Univ. of Electronic Technology                          | Ran Peng                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute   |
| 10:15-12:15                                                                                                                               | B12.149                                                        | Yingxi Liang                                                                                                                                 | AVIC Xi'an Flight Automatic                              |
| <b>313</b> <i>Hierarchical reinforcement learning for fixed-wing UAV</i>                                                                  |                                                                |                                                                                                                                              |                                                          |

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|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Control Research Institute                                                                                                                   |                                                            | Yichuan Song                                                                                                                                                                   | AVIC Xi'an Flight Automatic                      |
| 10:15-12:15                                                                                                                                  | B12.155                                                    | Cheng Zhou                                                                                                                                                                     | Control Research Institute                       |
| <b>988</b> <i>ESO-Based terminal sliding mode control for unmanned seaplane takeoff under severe sea states</i>                              |                                                            | Wenqian Zhang                                                                                                                                                                  | AVIC Xi'an Flight Automatic                      |
| Yubo Wang                                                                                                                                    | Beihang Univ.                                              |                                                                                                                                                                                | Control Research Institute                       |
| Lixin Wang                                                                                                                                   | Beihang Univ.                                              | Jinzhaio Zhang                                                                                                                                                                 | AVIC Xi'an Flight Automatic                      |
| Zhuang Li                                                                                                                                    | China Special Vehicle Research Institute                   |                                                                                                                                                                                | Control Research Institute                       |
| Zhe Zhang                                                                                                                                    | Chinese Flight Test Establishment                          |                                                                                                                                                                                | AVIC Xi'an Flight Automatic                      |
| Hailiang Liu                                                                                                                                 | Beihang Univ.                                              |                                                                                                                                                                                | Control Research Institute                       |
| 10:15-12:15                                                                                                                                  | B12.156                                                    | 10:15-12:15                                                                                                                                                                    | B12.162                                          |
| <b>1003</b> <i>多动态障碍下的无人机鲁棒避障固定时间轨迹跟踪控制</i>                                                                                                  |                                                            | <b>264</b> <i>Deep reinforcement learning spacecraft trajectory planning for autonomous fine detection of the asteroid</i>                                                     |                                                  |
| Yajun Li                                                                                                                                     | Xi'an Institute of Modern Control Technology               | ShengYang Liu                                                                                                                                                                  | Shanghai Aerospace Control Technology Institute  |
| Shuai Liang                                                                                                                                  | Xi'an Univ. of Technology                                  | Ting Song                                                                                                                                                                      | Shanghai Aerospace Control Technology Institute  |
| Changzhu Wei                                                                                                                                 | Harbin Institute of Technology                             | Fei Han                                                                                                                                                                        | Shanghai Aerospace Control Technology Institute  |
| Naigang Cui                                                                                                                                  | Harbin Institute of Technology                             | 10:15-12:15                                                                                                                                                                    | B12.163                                          |
| 10:15-12:15                                                                                                                                  | B12.157                                                    | <b>300</b> <i>Multi-UAV cooperative task allocation algorithm based on improved CBBA</i>                                                                                       |                                                  |
| <b>1280</b> <i>An improved PPO-based UAV dynamic obstacle avoidance method under wind disturbance</i>                                        |                                                            | Shihao Zhao                                                                                                                                                                    | Northwestern Polytechnical Univ.                 |
| Jian Zhang                                                                                                                                   | Xiamen Univ.                                               | Yaohong Qu                                                                                                                                                                     | Northwestern Polytechnical Univ.                 |
| Jingrui Zhang                                                                                                                                | Xiamen Univ.                                               | 10:15-12:15                                                                                                                                                                    | B12.164                                          |
| Kang Zhang                                                                                                                                   | Changji Univ.                                              | <b>393</b> <i>HDBSCAN-Based clustering and convex hull potential field for USV obstacle avoidance in unstructured environments</i>                                             |                                                  |
| Huiming Chen                                                                                                                                 | Changji Univ.                                              | Hua Guo                                                                                                                                                                        | China Shenhua Energy Shipping Company Limited    |
| 10:15-12:15                                                                                                                                  | B12.158                                                    | Weihaan Li                                                                                                                                                                     | Harbin Engineering Univ.                         |
| <b>1596</b> <i>An emergency rescue UAV path planning method integrating dual experience replay buffer and adaptive exploration</i>           |                                                            | Zekai Fu                                                                                                                                                                       | China Shenhua Energy Shipping Company Limited    |
| Jiarui Bai                                                                                                                                   | Changji Univ.                                              | Dongsheng Li                                                                                                                                                                   | China Waterborne Transport Research Institute    |
| Jian Zhang                                                                                                                                   | Changji Univ.                                              | Shanjia Zhang                                                                                                                                                                  | Harbin Engineering Univ.                         |
| Huiming Chen                                                                                                                                 | Changji Univ.                                              | Zhi Zhang                                                                                                                                                                      | Harbin Engineering Univ.                         |
| Haoran He                                                                                                                                    | Changji Univ.                                              | 10:15-12:15                                                                                                                                                                    | B12.165                                          |
| 10:15-12:15                                                                                                                                  | B12.159                                                    | <b>673</b> <i>Multi-UAV trajectory planning based on the black-winged kite-grey wolf hybrid optimizer</i>                                                                      |                                                  |
| <b>1668</b> <i>Autonomous trajectory tracking control of UAVs based on disturbance-observer-compensated fixed-time terminal sliding mode</i> |                                                            | Shaochong Wang                                                                                                                                                                 | Beijing Information Science and Technology Univ. |
| Xiang Liu                                                                                                                                    | Shandong Univ. of Aeronautics                              | Xiaobin Xu                                                                                                                                                                     | Beijing Information Science and Technology Univ. |
| Hui Li                                                                                                                                       | Shandong Univ. of Aeronautics                              | Yi Ji                                                                                                                                                                          | Beijing Information Science and Technology Univ. |
| 10:15-12:15                                                                                                                                  | B12.160                                                    | 10:15-12:15                                                                                                                                                                    | B12.166                                          |
| <b>379</b> <i>Terrain-Based illumination and shadow simulation method for lunar exploration planning</i>                                     |                                                            | <b>809</b> <i>Reinforcement learning method for airship path planning under wind field disturbances integrating artificial potential field and reference trajectory priors</i> |                                                  |
| Cheng Yang                                                                                                                                   | Science and Technology Laboratory on Space Flight Dynamics | Hao Jin                                                                                                                                                                        | Beihang Univ.                                    |
| Yuhui Gao                                                                                                                                    | Science and Technology Laboratory on Space Flight Dynamics | Xiao Guo                                                                                                                                                                       | Beihang Univ.                                    |
| Yizhe Huang                                                                                                                                  | Science and Technology Laboratory on Space Flight Dynamics | 10:15-12:15                                                                                                                                                                    | B12.167                                          |
| Chuankai Liu                                                                                                                                 | Science and Technology Laboratory on Space Flight Dynamics | <b>851</b> <i>End-to-End mapless UAV target tracking via transformer-based reinforcement learning</i>                                                                          |                                                  |
| Changming Zhu                                                                                                                                | Science and Technology Laboratory on Space Flight Dynamics | Jiarui Hua                                                                                                                                                                     | Beihang Univ.                                    |
| Tianyi Yu                                                                                                                                    | Science and Technology Laboratory on Space Flight Dynamics | Xiao Guo                                                                                                                                                                       | Beihang Univ.                                    |
| Jun Sun                                                                                                                                      | Science and Technology Laboratory on Space Flight Dynamics | Zilong Zhang                                                                                                                                                                   | Beihang Univ.                                    |
| 10:15-12:15                                                                                                                                  | B12.161                                                    | 10:15-12:15                                                                                                                                                                    | B12.168                                          |
| <b>215</b> <i>Application of improved a star algorithm based on dynamic jump point search in route planning</i>                              |                                                            | <b>862</b> <i>Dynamic object manipulation method for reinforcement</i>                                                                                                         |                                                  |

*learning based on visual observation*

|             |                |
|-------------|----------------|
| Fengbo Lan  | Tsinghua Univ. |
| Jieqian Sun | Tsinghua Univ. |
| Ziye Zhang  | Tsinghua Univ. |
| Hengxuan Xu | Tsinghua Univ. |
| Tao Xue     | Tsinghua Univ. |
| Tao Zhang   | Tsinghua Univ. |
| 10:15-12:15 | B12.169        |

**926** *Coverage path planning for UAV based on an improved particle swarm optimization algorithm*

|             |                          |
|-------------|--------------------------|
| Yi Zhang    | Naval Aviation Univ.     |
| Wanbin Wang | Harbin Engineering Univ. |
| Xiuxia Yang | Naval Aviation Univ.     |
| 10:15-12:15 | B12.170                  |

**984** *Mission/Trajectory reconstruction method after launch vehicle propulsion failure*

|                |                                               |
|----------------|-----------------------------------------------|
| Shiyao Li      | Beijing Institute of Space Long March Vehicle |
| Yipeng Liu     | Beijing Institute of Space Long March Vehicle |
| Zhengxiang Sun | Beijing Institute of Space Long March Vehicle |
| 10:15-12:15    | B12.171                                       |

**1020** *Trajectory planning and multiple interception strategy for counter-unmanned missions*

|             |               |
|-------------|---------------|
| Yanjie Min  | Beihang Univ. |
| Dawei Li    | Beihang Univ. |
| 10:15-12:15 | B12.172       |

**1028** *SGDF-Planner: soft-constrained geometric trajectory optimization for differentially flat quadrotors*

|              |               |
|--------------|---------------|
| Yuhan Liu    | Beihang Univ. |
| Jiang Zhao   | Beihang Univ. |
| Yingxun Wang | Beihang Univ. |
| Pei Chi      | Beihang Univ. |

|                     |                           |
|---------------------|---------------------------|
| <b>C1</b>           | <b>1st Floor VIP Room</b> |
| <b>Modeling GNC</b> | <b>1层 贵宾厅</b>             |

|                   |      |
|-------------------|------|
| Chairs: Gang Wang |      |
| 13:30-13:38       | C1.1 |

**698** *Event-triggered anti-swing control of rotary cranes via actor-critic reinforcement learning*

|             |                                                |
|-------------|------------------------------------------------|
| Qi Zhang    | Beijing Univ. of Posts and Telecommunications  |
| Gang Wang   | Beijing Univ. of Posts and Telecommunications  |
| Song Han    | China Academy of Safety Science and Technology |
| Wenjun Li   | Beijing Univ. of Posts and Telecommunications  |
| Ziwei Wang  | Beijing Univ. of Posts and Telecommunications  |
| Yuxin Li    | China Railway Hohhot Group Co., Ltd.           |
| 13:38-13:46 | C1.2                                           |

**1210** *Anti-saturation integrated guidance and control for hypersonic vehicles via dual-period variable gain and artificial potential field*

|              |                                 |
|--------------|---------------------------------|
| Yinchao Wang | Beijing Institute of Technology |
|--------------|---------------------------------|

|              |                                 |
|--------------|---------------------------------|
| Liangyu Zhao | Beijing Institute of Technology |
| Haoming Shi  | Beijing Institute of Technology |
| 13:46-13:54  | C1.3                            |

**740** *基于 NSGA-3 的高超声速飞行器 MPC 参数多目标优化方法*

|             |                                               |
|-------------|-----------------------------------------------|
| Xutong Wang | Nanjing Univ. of Aeronautics and Astronautics |
| Meng Yu     | Nanjing Univ. of Aeronautics and Astronautics |
| 13:54-14:02 | C1.4                                          |

**1176** *Dual-model switching model predictive control for a dual-motor tendon-driven dexterous hand*

|             |                                               |
|-------------|-----------------------------------------------|
| Shun He     | Nanjing Univ. of Aeronautics and Astronautics |
| Meng Yu     | Nanjing Univ. of Aeronautics and Astronautics |
| 14:02-14:10 | C1.5                                          |

**845** *基于自适应 INDI 的高超声速飞行器返回段容错控制*

|             |                                               |
|-------------|-----------------------------------------------|
| Xinping Zhu | Nanjing Univ. of Aeronautics and Astronautics |
| Yanli Du    | Nanjing Univ. of Aeronautics and Astronautics |
| Yanbin Liu  | Nanjing Univ. of Aeronautics and Astronautics |
| Zigang Jin  | Nanjing Univ. of Aeronautics and Astronautics |
| 14:10-14:18 | C1.6                                          |

**1726** *Comparative analysis of virtual control variables in lateral-directional backstepping control for UAVs*

|               |                                               |
|---------------|-----------------------------------------------|
| Zhuolin Cheng | Nanjing Univ. of Aeronautics and Astronautics |
| Boyi Chen     | Nanjing Univ. of Aeronautics and Astronautics |
| Yanbin Liu    | Nanjing Univ. of Aeronautics and Astronautics |
| Jinbao Chen   | Nanjing Univ. of Aeronautics and Astronautics |
| 14:18-14:26   | C1.7                                          |

**441** *基于混沌多项式的变构型飞行器爬升轨迹鲁棒优化*

|               |                                               |
|---------------|-----------------------------------------------|
| Wangxin Zheng | Nanjing Univ. of Aeronautics and Astronautics |
| Zepeng Gao    | Nanjing Univ. of Aeronautics and Astronautics |
| Yanbin Liu    | Nanjing Univ. of Aeronautics and Astronautics |
| Haidong Shen  | Nanjing Univ. of Aeronautics and Astronautics |
| Boyi Chen     | Nanjing Univ. of Aeronautics and Astronautics |
| Jinbao Chen   | Nanjing Univ. of Aeronautics and Astronautics |
| 14:26-14:34   | C1.8                                          |

**1239** *Fault-tolerant control of networked flight control system based on communication availability*

|               |               |
|---------------|---------------|
| Fangyuan Chen | Beihang Univ. |
| Jian Shi      | Beihang Univ. |
| Rui Mu        | Beihang Univ. |
| Shaoping Wang | Beihang Univ. |

|                                                                                                                              |                                                               |                                                                                                                                    |                                                               |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 14:34-14:42                                                                                                                  | C1.9                                                          | Jiniang Bian                                                                                                                       | AVIC Chengdu Aircraft Design and Research Institute           |
| <b>1347</b> <i>Bird-strike avoidance during final approach via gaussian-process prediction and model predictive control</i>  |                                                               | Jun Zhang                                                                                                                          | AVIC Chengdu Aircraft Design and Research Institute           |
| Pengcheng Ren                                                                                                                | Beihang Univ.                                                 | Jie Zhong                                                                                                                          | Sichuan Univ.                                                 |
| Rentong Chen                                                                                                                 | Beihang Univ.                                                 | 13:38-13:46                                                                                                                        | C2.2                                                          |
| Xingjian Wang                                                                                                                | Beihang Univ.                                                 | <b>1108</b> <i>TACL: A generalized approach for multi-robot task allocation using collaborative LLMs</i>                           |                                                               |
| Chao Zhang                                                                                                                   | Beihang Univ.                                                 | Yandong Wang                                                                                                                       | Beihang Univ.                                                 |
| Yuwei Zhang                                                                                                                  | Beihang Univ.                                                 | Xuxin Lv                                                                                                                           | Beihang Univ.                                                 |
| Rui Mu                                                                                                                       | Beihang Univ.                                                 | Junle Wang                                                                                                                         | Beihang Univ.                                                 |
| Shaoping Wang                                                                                                                | Beihang Univ.                                                 | Xiaolin Ai                                                                                                                         | Institute of Automation, CAS                                  |
| 14:42-14:50                                                                                                                  | C1.10                                                         | Wenjun Wu                                                                                                                          | Beihang Univ.                                                 |
| <b>664</b> 航空永磁同步电机位置智能监控与容错控制                                                                                               |                                                               | 13:46-13:54                                                                                                                        | C2.3                                                          |
| Wei Zhang                                                                                                                    | Beijing Keeven Aviation Instrument Co., Ltd                   | <b>1297</b> <i>SWORD: Alleviating overthinking in LLMs via semantic window for redundancy detection</i>                            |                                                               |
| Yifan Gong                                                                                                                   | Beijing Keeven Aviation Instrument Co., Ltd                   | Jingjing Huang                                                                                                                     | Institute of Automation, CAS                                  |
| Shan Li                                                                                                                      | Beijing Keeven Aviation Instrument Co., Ltd                   | Jinyuan Feng                                                                                                                       | Institute of Automation, CAS                                  |
| 14:50-14:58                                                                                                                  | C1.11                                                         | Xiaolin Ai                                                                                                                         | Institute of Automation, CAS                                  |
| <b>824</b> 基于 GAF 多通道灰度图与 CNN 的永磁同步电机故障检测方法                                                                                  |                                                               | Zhiqiang Pu                                                                                                                        | Institute of Automation, CAS                                  |
| Tianbo Liang                                                                                                                 | Beijing Keeven Aviation Instrument Co., Ltd                   | 13:54-14:02                                                                                                                        | C2.4                                                          |
| Lulu Liang                                                                                                                   | Beijing Keeven Aviation Instrument Co., Ltd                   | <b>1306</b> <i>LLM-driven conversational agents for adaptive learning path recommendations</i>                                     |                                                               |
| Ming Sun                                                                                                                     | Beijing Keeven Aviation Instrument Co., Ltd                   | Zeping Liu                                                                                                                         | Beihang Univ.                                                 |
| 14:58-15:06                                                                                                                  | C1.12                                                         | Jian Ren                                                                                                                           | Beihang Univ.                                                 |
| <b>1603</b> <i>Design and evaluation of a triple-redundant flight control system for UAVs</i>                                |                                                               | Wenjun Wu                                                                                                                          | Beihang Univ.                                                 |
| Dong Wang                                                                                                                    | AVIC Xi'an Aeronautics Computing Technique Research Institute | 14:02-14:10                                                                                                                        | C2.5                                                          |
| Jianing Li                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics                 | <b>1326</b> <i>LLM-enhanced strategy-guided decision making for multi-agent reasoning</i>                                          |                                                               |
| Hongyan Qian                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                 | Xiao Wang                                                                                                                          | Beihang Univ.                                                 |
| 15:06-15:14                                                                                                                  | C1.13                                                         | Jian Ren                                                                                                                           | Beihang Univ.                                                 |
| <b>1104</b> <i>Zero-sum differential game-based data-driven sliding mode FTC for nonlinear discrete-time systems</i>         |                                                               | Wenjun Wu                                                                                                                          | Beihang Univ.                                                 |
| Minxuan Li                                                                                                                   | Hefei Univ. of Technology                                     | 14:10-14:18                                                                                                                        | C2.6                                                          |
| Wenjing Ren                                                                                                                  | Hefei Univ. of Technology                                     | <b>715</b> <i>Large model agent for intelligent control of unmanned systems: challenges, solutions and experimental validation</i> |                                                               |
| Junhao Zhu                                                                                                                   | Hefei Univ. of Technology                                     | Haoyu Guo                                                                                                                          | China Research and Development Academy of Machinery Equipment |
| 15:14-15:22                                                                                                                  | C1.14                                                         | Xiaozhang Liu                                                                                                                      | China Research and Development Academy of Machinery Equipment |
| <b>840</b> <i>Fault localization in flush air data sensing systems using a hybrid data-driven and physics-based approach</i> |                                                               | Chen Ke                                                                                                                            | China Research and Development Academy of Machinery Equipment |
| Jie Wang                                                                                                                     | Chengdu Univ. of Information and Technology                   | Zilong Bai                                                                                                                         | China Research and Development Academy of Machinery Equipment |
| Dibo Xiao                                                                                                                    | Chengdu Univ. of Information and Technology                   | Shihao Pan                                                                                                                         | China Research and Development Academy of Machinery Equipment |
| <b>C2</b> <b>2nd Floor Yangshuo Room</b>                                                                                     |                                                               | Yafei Yuan                                                                                                                         | China Research and Development Academy of Machinery Equipment |
| <b>Reasoning GNC</b> <b>2 层 阳朔厅</b>                                                                                          |                                                               | 14:18-14:26                                                                                                                        | C2.7                                                          |
| Chairs: Rui Mu                                                                                                               |                                                               | <b>1208</b> <i>Spatio-temporal transformer cross-modal fusion for robust dexterous grasping under occlusion</i>                    |                                                               |
| 13:30-13:38                                                                                                                  | C2.1                                                          | Yali Fan                                                                                                                           | Beihang Univ.                                                 |
| <b>329</b> 一种基于掩码自监督时序 Transformer 的飞控系统模型生成余度方法                                                                             |                                                               | Jian Shi                                                                                                                           | Beihang Univ.                                                 |
| Yu Zhou                                                                                                                      | AVIC Chengdu Aircraft Design and Research Institute           | Shaoping Wang                                                                                                                      | Beihang Univ.                                                 |
|                                                                                                                              |                                                               | Rui Mu                                                                                                                             | Beihang Univ.                                                 |
|                                                                                                                              |                                                               | Maoqing Li                                                                                                                         | Beihang Univ.                                                 |
|                                                                                                                              |                                                               | Huakun Niu                                                                                                                         | Beihang Univ.                                                 |
|                                                                                                                              |                                                               | 14:26-14:34                                                                                                                        | C2.8                                                          |

**1353** *Safety alignment of vision-language-action models based on formal constraints*

|               |               |
|---------------|---------------|
| Yichao Lian   | Beihang Univ. |
| Rui Mu        | Beihang Univ. |
| Jian Shi      | Beihang Univ. |
| Shaoping Wang | Beihang Univ. |
| Yali Fan      | Beihang Univ. |

14:34-14:42 C2.9

**1019** *HSF-YOLO: An efficient and lightweight object detection network for complex traffic scenes*

|             |               |
|-------------|---------------|
| Yuxuan Zhou | Beihang Univ. |
| Jiaxin Yang | Beihang Univ. |
| Wenling Li  | Beihang Univ. |
| Jia Song    | Beihang Univ. |

14:42-14:50 C2.10

**719** 基于异构神经网络的模型可信度模糊评估方案

|             |                                               |
|-------------|-----------------------------------------------|
| Kefan Li    | Nanjing Univ. of Aeronautics and Astronautics |
| Boyi Chen   | Nanjing Univ. of Aeronautics and Astronautics |
| Yanbin Liu  | Nanjing Univ. of Aeronautics and Astronautics |
| Jinbao Chen | Nanjing Univ. of Aeronautics and Astronautics |

14:50-14:58 C2.11

**1150** 基于深度强化学习的固定翼飞行器相对位置精确控制方法研究

|              |                                                     |
|--------------|-----------------------------------------------------|
| Kun Liang    | AVIC Chengdu Aircraft Design and Research Institute |
| Peng Zhai    | Fudan Univ.                                         |
| Jing Ni      | AVIC Chengdu Aircraft Design and Research Institute |
| Bo Ma        | AVIC Chengdu Aircraft Design and Research Institute |
| Hongyuan Zhu | AVIC Chengdu Aircraft Design and Research Institute |
| Yiwen Hu     | AVIC Chengdu Aircraft Design and Research Institute |
| Hao Wei      | AVIC Chengdu Aircraft Design and Research Institute |

14:58-15:06 C2.12

**1266** *FedTrust-dyn: Dynamic trust-aware federated learning for robust multivariate time-series anomaly detection under malicious attacks*

|                |                                          |
|----------------|------------------------------------------|
| Zhiyuan Gao    | Beihang Univ.                            |
| Rui Yang       | Beihang Univ.                            |
| Ziniu Yu       | Beihang Univ.                            |
| Zhenyu Yan     | China Nuclear Power Engineering Co., Ltd |
| Kangning Zhang | Beihang Univ.                            |
| Ruijun Liu     | Beihang Univ.                            |

15:06-15:14 C2.13

**533** *Cross-modal feature recalibration for unmanned system perception and decision-making in complex environments*

|            |                                               |
|------------|-----------------------------------------------|
| Wenxin Xia | Nanjing Univ. of Aeronautics and Astronautics |
| Yin Wang   | Nanjing Univ. of Aeronautics and Astronautics |

Astronautics

15:14-15:22 C2.14

**1398** *Multi-strategy enhanced framework with intelligent decision for infrared photovoltaic defect inspection*

|            |                             |
|------------|-----------------------------|
| Zhuolin Li | Beijing Univ. of Technology |
| Yu Liang   | Beijing Univ. of Technology |
| Heng Sun   | Beijing Univ. of Technology |

15:22-15:30 C2.15

**1015** *Kinematic-constrained deep residual shrinkage network for robust velocity estimation via IMU/odometer fusion*

|               |                                 |
|---------------|---------------------------------|
| Keqiang Wu    | Beijing Institute of Technology |
| Pengxiang Fu  | Beijing Institute of Technology |
| Teng Ma       | The Second Academy of CASIC     |
| Yongqiang Han | Beijing Institute of Technology |

**C3** **2nd Floor Lipu Room**  
**Fault-tolerant GNC** **2 层 荔浦厅**

Chairs: Wei Dong

13:30-13:38 C3.1

**1684** *Design of pitch speed protection trigger mechanism for civil aircraft automatic flight based on multi-source information fusion and hysteresis logic*

|             |                                                       |
|-------------|-------------------------------------------------------|
| Jiawei Chen | COMAC Shanghai Aircraft Design and Research Institute |
|-------------|-------------------------------------------------------|

13:38-13:46 C3.2

**1479** *A unified impact angle control guidance law for all-aspect interception across wide evader speeds*

|              |                                                   |
|--------------|---------------------------------------------------|
| Chi Peng     | Xi'an Research Institute of Surveying and Mapping |
| Zongpeng Pan | Xi'an Research Institute of Surveying and Mapping |

13:46-13:54 C3.3

**723** *A method of developing endurance load spectrum for civil aircraft actuation systems*

|              |                                                       |
|--------------|-------------------------------------------------------|
| Hanhan Zeng  | COMAC Shanghai Aircraft Design and Research Institute |
| Jian Huang   | COMAC Shanghai Aircraft Design and Research Institute |
| Dongguang Xu | COMAC Shanghai Aircraft Design and Research Institute |
| Xiaoyi Gao   | COMAC Shanghai Aircraft Design and Research Institute |
| Hairui Jiang | COMAC Shanghai Aircraft Design and Research Institute |

13:54-14:02 C3.4

**1351** *Imitation-guided reinforcement learning strategy for orbital pursuit decision*

|              |                                 |
|--------------|---------------------------------|
| Wei Dong     | Beijing Institute of Technology |
| Jiajie Wang  | Beijing Institute of Technology |
| Yeyun Cai    | Beijing Institute of Technology |
| Chunyan Wang | Beijing Institute of Technology |
| Chen Chen    | Beijing Institute of Technology |
| Fang Deng    | Beijing Institute of Technology |

14:02-14:10 C3.5

**1278** *Design of altitude deviation and altitude capture alerts for civil aircraft automatic flight control system*

|            |                                                       |
|------------|-------------------------------------------------------|
| Senbin You | COMAC Shanghai Aircraft Design and Research Institute |
|------------|-------------------------------------------------------|

|                                                                                                                                                 |                                                       |                                                                                                                   |                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Chao Zhou                                                                                                                                       | COMAC Shanghai Aircraft Design and Research Institute | Yajie Ma                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics |
| Chang Liu                                                                                                                                       | COMAC Shanghai Aircraft Design and Research Institute | Chuchu Han                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics |
| 14:10-14:18                                                                                                                                     | C3.6                                                  | 15:14-15:22                                                                                                       | C3.14                                         |
| <b>1502</b> 面向高超声速飞行器电静液作动器的在线热健康估计与分层协同容错控制                                                                                                    |                                                       | <b>380</b> <i>Distributed asynchronous CI fusion filter for satellite clusters</i>                                |                                               |
| Zhaoxiong Wang                                                                                                                                  | Beihang Univ.                                         | Jingliang Gui                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics |
| Yunhua Li                                                                                                                                       | Beihang Univ.                                         | Shuli Liang                                                                                                       | National Key Laboratory of Space Security     |
| 14:18-14:26                                                                                                                                     | C3.7                                                  | Wang Lu                                                                                                           | National Key Laboratory of Space Security     |
| <b>1586</b> <i>Dynamic stiffness analysis of civil aircraft flight control hydraulic servo actuation system</i>                                 |                                                       | Bing Hua                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics |
| Jian Huang                                                                                                                                      | Shanghai Aircraft Design and Research Institute       |                                                                                                                   |                                               |
| 14:26-14:34                                                                                                                                     | C3.8                                                  | <b>C4</b> <b>2nd Floor Nanning Room1</b>                                                                          |                                               |
| <b>1647</b> <i>Distributed self-learning coordination control for multi-spacecraft with actuator degradation</i>                                |                                                       | <b>Collaborative GNC</b> <b>2 层 南宁厅 1</b>                                                                         |                                               |
| Baopeng Zhu                                                                                                                                     | Southeast Univ.                                       | Chairs: Yang Liu                                                                                                  |                                               |
| Yi Deng                                                                                                                                         | Beihang Univ.                                         | 13:30-13:38                                                                                                       | C4.1                                          |
| Lixuan He                                                                                                                                       | Beihang Univ.                                         | <b>863</b> 多飞行器俯冲段滑模协同制导控制一体化                                                                                     |                                               |
| Yukai Zhu                                                                                                                                       | Beihang Univ.                                         | Zigang Jin                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics |
| 14:34-14:42                                                                                                                                     | C3.9                                                  | Yanli Du                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics |
| <b>1649</b> <i>Axial resonance suppression of active magnetic bearings-rotor system by phase compensation under flexible-foundation support</i> |                                                       | Yanbin Liu                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics |
| Yuxin Zeng                                                                                                                                      | Beihang Univ.                                         | Xinping Zhu                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics |
| Ximing Liu                                                                                                                                      | Beihang Univ.                                         |                                                                                                                   |                                               |
| Yang Yan                                                                                                                                        | Beihang Univ.                                         | 13:38-13:46                                                                                                       | C4.2                                          |
| Yifan Yin                                                                                                                                       | Beihang Univ.                                         | <b>276</b> <i>Adaptive collaborative decision-making method for multi-UAV shepherding control</i>                 |                                               |
| Shiqiang Zheng                                                                                                                                  | Beihang Univ.                                         | Jiang Zhao                                                                                                        | Beihang Univ.                                 |
| 14:42-14:50                                                                                                                                     | C3.10                                                 | XinHang Ma                                                                                                        | Beihang Univ.                                 |
| <b>881</b> <i>Optimization of fuel station placement for on-orbit refueling of SSO satellite clusters</i>                                       |                                                       | Zhi Yang                                                                                                          | Beihang Univ.                                 |
| Tianle Yin                                                                                                                                      | Jiangnan Univ.                                        | Pei Chi                                                                                                           | Beihang Univ.                                 |
| Xiaoyu Zhu                                                                                                                                      | Shanghai Jiao Tong Univ.                              | Yingxun Wang                                                                                                      | Beihang Univ.                                 |
| Zhijian He                                                                                                                                      | Shenzhen Technology Univ.                             | 13:46-13:54                                                                                                       | C4.3                                          |
| Jihe Wang                                                                                                                                       | Sun Yat-Sen Univ.                                     | <b>1134</b> <i>Cooperative decision-making in 5v5 satellite confrontation using multi-agent soft actor-critic</i> |                                               |
| Kaixiang Yang                                                                                                                                   | South China Univ. of Technology                       | Jiaye Chen                                                                                                        | Tianjin Univ.                                 |
| Chengxi Zhang                                                                                                                                   | Jiangnan Univ.                                        | Xiuyun Zhang                                                                                                      | Tianjin Univ.                                 |
| 14:50-14:58                                                                                                                                     | C3.11                                                 | Da Liu                                                                                                            | Tianjin Univ.                                 |
| <b>861</b> <i>Performance control methodology for trajectory tracking in small celestial body landing</i>                                       |                                                       | Hanyu Liang                                                                                                       | Beijing Institute of Control Engineering      |
| Zhihui Sui                                                                                                                                      | China Academy of Space Technology                     | Wenjing Liu                                                                                                       | Beijing Institute of Control Engineering      |
| Changhao Sun                                                                                                                                    | China Academy of Space Technology                     | Qun Zong                                                                                                          | Tianjin Univ.                                 |
| Yi Xiu                                                                                                                                          | China Academy of Space Technology                     | 13:54-14:02                                                                                                       | C4.4                                          |
| 14:58-15:06                                                                                                                                     | C3.12                                                 | <b>936</b> <i>Adaptive hierarchical multi-agent reinforcement learning for cooperative control</i>                |                                               |
| <b>1651</b> 火星大气辅助变轨安全策略自主规划与控制                                                                                                                 |                                                       | Yongkai Tian                                                                                                      | Beihang Univ.                                 |
| Minwen Guo                                                                                                                                      | Beijing Control Engineering Research Institute        | Zhiyu Li                                                                                                          | Beihang Univ.                                 |
| Xiangyu Huang                                                                                                                                   | Beijing Control Engineering Research Institute        | Shuguang Zhang                                                                                                    | Beihang Univ.                                 |
| Haixia Hu                                                                                                                                       | Beijing Control Engineering Research Institute        | Yang Liu                                                                                                          | Beihang Univ.                                 |
| 15:06-15:14                                                                                                                                     | C3.13                                                 | Jie Luo                                                                                                           | Beihang Univ.                                 |
| <b>1237</b> 基于多智能体强化学习的卫星追逃防御博弈                                                                                                                 |                                                       | 14:02-14:10                                                                                                       | C4.5                                          |
| Wenxuan Wang                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics         | <b>1369</b> <i>Dual-stream encoding with cross-domain alignment for off-dynamics policy transfer</i>              |                                               |
|                                                                                                                                                 |                                                       | Tenghai Qiu                                                                                                       | Central South Univ.                           |
|                                                                                                                                                 |                                                       | Yuan Wang                                                                                                         | Institute of Automation, CAS                  |

|                                                                                                                                          |                                                      |                                                                                                                         |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Zhiqiang Pu                                                                                                                              | Institute of Automation, CAS                         | Jimei Li                                                                                                                | Yantai Univ.                                        |
| Jinyuan Feng                                                                                                                             | Institute of Automation, CAS                         | 15:06-15:14                                                                                                             | C4.13                                               |
| Chenyi Li                                                                                                                                | Beijing Univ. of Technology                          | <b>1412 A bi-level planning method for collaborative task allocation of urban logistics UAVs</b>                        |                                                     |
| Xiaolin Ai                                                                                                                               | Institute of Automation, Chinese Academy of Sciences | Wei Chen                                                                                                                | Air Force Engineering Univ.                         |
| Yuqian Zhao                                                                                                                              | Central South Univ.                                  | Fuping Yu                                                                                                               | Air Force Engineering Univ.                         |
| 14:10-14:18                                                                                                                              | C4.6                                                 | Xingyi Pan                                                                                                              | Air Force Engineering Univ.                         |
| <b>802 Temporal hypergraph coalition game for distributed multi-UAV swarm coordination</b>                                               |                                                      | 15:14-15:22                                                                                                             | C4.14                                               |
| Changping Yu                                                                                                                             | Beihang Univ.                                        | <b>1085 Distributed trajectory planning for quadrotor swarm in narrow and tilted pipes</b>                              |                                                     |
| Yang Liu                                                                                                                                 | Beihang Univ.                                        | Yiming Zhang                                                                                                            | Beijing Institute of Technology                     |
| 14:18-14:26                                                                                                                              | C4.7                                                 | Kewei Xia                                                                                                               | Beijing Institute of Technology                     |
| <b>143 Trajectory optimization for heterogeneous gliding vehicle swarms with tight spatiotemporal cooperation constraints</b>            |                                                      | 15:22-15:30                                                                                                             | C4.15                                               |
| Rui Li                                                                                                                                   | Xiamen Univ.                                         | <b>1145 Research on dual-aircraft cooperative rendezvous based on reinforcement learning and interfered fluid field</b> |                                                     |
| Yue Feng                                                                                                                                 | Univ. of Electronic Science and Technology of China  | Ruotong Xu                                                                                                              | Beihang Univ.                                       |
| Zonghua Sun                                                                                                                              | Xiamen Univ.                                         | Honglun Wang                                                                                                            | Beihang Univ.                                       |
| 14:26-14:34                                                                                                                              | C4.8                                                 | Junfan Zhu                                                                                                              | Beihang Univ.                                       |
| <b>226 Task scheduling for capability-variant UAV swarms via capability-aware clustering and improved particle swarm optimization</b>    |                                                      | <b>C5 2nd Floor Nanning Room2</b>                                                                                       |                                                     |
| Qicheng Liu                                                                                                                              | Univ. of Jinan                                       | <b>Prediction GNC 2层 南宁厅 2</b>                                                                                          |                                                     |
| Meng Li                                                                                                                                  | Univ. of Jinan                                       | Chairs: Yin Wang                                                                                                        |                                                     |
| Shuo Zhang                                                                                                                               | Univ. of Jinan                                       | 13:30-13:38                                                                                                             | C5.1                                                |
| 14:34-14:42                                                                                                                              | C4.9                                                 | <b>700 位姿非一致窗口穿越下四旋翼无人机轨迹生成与跟踪控制</b>                                                                                    |                                                     |
| <b>1201 An improved nonlinear model predictive control method for UAV trajectory optimization</b>                                        |                                                      | Yonglan Lai                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics       |
| Jiaqi chen                                                                                                                               | Sichuan Univ.                                        | Yin Wang                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics       |
| Junjian Zhan                                                                                                                             | Sichuan Univ.                                        | 13:38-13:46                                                                                                             | C5.2                                                |
| Kairui Zhang                                                                                                                             | Sichuan Univ.                                        | <b>701 基于 PPO-CBF 的四旋翼无人机避障导航方法</b>                                                                                     |                                                     |
| Baoxinyu Wang                                                                                                                            | Sichuan Univ.                                        | Shiji Wang                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics       |
| Guangtai Tian                                                                                                                            | Sichuan Univ.                                        | Yin Wang                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics       |
| Bin Li                                                                                                                                   | Sichuan Univ.                                        | 13:46-13:54                                                                                                             | C5.3                                                |
| 14:42-14:50                                                                                                                              | C4.10                                                | <b>704 基于动态障碍代价的无人机编队轨迹优化方法</b>                                                                                         |                                                     |
| <b>1750 Exploration on the intelligent transformation path of mechatronic technology course driven by digital-intelligent technology</b> |                                                      | Yang Li                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics       |
| Yong Zhang                                                                                                                               | Guilin Univ. of Aerospace Technology                 | Yin Wang                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics       |
| Ping Sun                                                                                                                                 | Guilin Normal Univ.                                  | 13:54-14:02                                                                                                             | C5.4                                                |
| 14:50-14:58                                                                                                                              | C4.11                                                | <b>150 Robust composite velocity tracking control for quadrotor UAVs via model-assisted ESO based error-state MPC</b>   |                                                     |
| <b>560 基于改进鲸鱼优化算法的多无人机协同目标搜索</b>                                                                                                         |                                                      | Zongyi Chen                                                                                                             | Yangzhou Univ.                                      |
| Wenyao Ma                                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics        | Rui Cao                                                                                                                 | Yangzhou Univ.                                      |
| Ju Jiang                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics        | 14:02-14:10                                                                                                             | C5.5                                                |
| 14:58-15:06                                                                                                                              | C4.12                                                | <b>707 Long-distance runway detection and false positive elimination method for UAV autonomous landing</b>              |                                                     |
| <b>1721 Hierarchical planning method for UAV swarms based on deep reinforcement learning and quantum-assisted optimization framework</b> |                                                      | Geng Chen                                                                                                               | Northwestern Polytechnical Univ.                    |
| Quan Li                                                                                                                                  | Jiangsu Second Normal Univ.                          | Chenggang Tao                                                                                                           | AVIC Chengdu Aircraft Design and Research Institute |
| Zitong Shen                                                                                                                              | Jiangsu Second Normal Univ.                          | Tian Yin                                                                                                                | AVIC Chengdu Aircraft Design and Research Institute |
| Wei Pan                                                                                                                                  | Jiangsu Second Normal Univ.                          | Tianxu Li                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute |
| Yiyang Ni                                                                                                                                | Jiangsu Second Normal Univ.                          | Xiaohong Wang                                                                                                           | AVIC Chengdu Aircraft Design and Research Institute |
| Linlin Xu                                                                                                                                | Jiangsu Second Normal Univ.                          | Rui Zhang                                                                                                               | Northwestern Polytechnical Univ.                    |
| Haiying Wan                                                                                                                              | Jiangnan Univ.                                       |                                                                                                                         |                                                     |
| Chengxi Zhang                                                                                                                            | Jiangnan Univ.                                       |                                                                                                                         |                                                     |



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|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
|                                                                                                                                                       |  | electrical engineering                                    |                                                                                                                                             |                                                        |
| Zichong Jia                                                                                                                                           |  | Beihang Univ.                                             | Weiqi Chen                                                                                                                                  | Control Research Institute                             |
| Zijie Luo                                                                                                                                             |  | Beihang Univ.                                             |                                                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute |
| 14:02-14:10                                                                                                                                           |  | C6.5                                                      | Kexiao Niu                                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>469</b> <i>Finite-time complementary filtering for aircraft attitude estimation: a comprehensive review of methods and challenges</i>              |  |                                                           |                                                                                                                                             |                                                        |
| Linan Wang                                                                                                                                            |  | Beijing Institute of Technology                           | Yuanzheng Liu                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute |
| Zhuo Liu                                                                                                                                              |  | Southeast Univ.                                           | 14:50-14:58 C6.11                                                                                                                           |                                                        |
| Meng Zhang                                                                                                                                            |  | Southeast Univ.                                           | <b>328</b> <i>面向余度传感器的多特征自适应融合方法实践</i>                                                                                                      |                                                        |
| Jing Nie                                                                                                                                              |  | Beijing Institute of Technology                           | Tong Guo                                                                                                                                    | AVIC Chengdu Aircraft Design and Research Institute    |
| 14:10-14:18                                                                                                                                           |  | C6.6                                                      | Lin Yang                                                                                                                                    | AVIC Chengdu Aircraft Design and Research Institute    |
| <b>1681</b> <i>Reliability-aware RGB-LiDAR semantic mapping with adaptive voxel update</i>                                                            |  |                                                           |                                                                                                                                             |                                                        |
| Kunpeng Tu                                                                                                                                            |  | The Hong Kong Univ. of Science and Technology (Guangzhou) | Chenggang Tao                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute    |
| Han Zhang                                                                                                                                             |  | The Hong Kong Univ. of Science and Technology (Guangzhou) | Jinliang Bian                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute    |
| Changhao Chen                                                                                                                                         |  | The Hong Kong Univ. of Science and Technology (Guangzhou) | Junquan Wang                                                                                                                                | Northwestern Polytechnical Univ.                       |
| 14:18-14:26                                                                                                                                           |  | C6.7                                                      | Rui Zhang                                                                                                                                   | Northwestern Polytechnical Univ.                       |
| <b>1036</b> <i>Multi-constellation GNSS robust positioning using truncated FDE of multiple faults</i>                                                 |  |                                                           |                                                                                                                                             |                                                        |
| Shengying Li                                                                                                                                          |  | Southeast Univ.                                           | 14:58-14:06 C6.12                                                                                                                           |                                                        |
| Penghui Liu                                                                                                                                           |  | Southeast Univ.                                           | <b>404</b> <i>Advanced sensor-based rotor position detection and its application in permanent magnet motors</i>                             |                                                        |
| Qian Meng                                                                                                                                             |  | Southeast Univ.                                           | Wenjing Cui                                                                                                                                 | AVIC Qing'an Group Co., Ltd.                           |
| Yaxuan Cai                                                                                                                                            |  | Southeast Univ.                                           | Xiaohui Song                                                                                                                                | AVIC Qing'an Group Co., Ltd.                           |
| Fanchen Meng                                                                                                                                          |  | Beijing Institute of Aerospace Control Devices            | Bo Wang                                                                                                                                     | AVIC Qing'an Group Co., Ltd.                           |
| Kai Guo                                                                                                                                               |  | Beihang Univ.                                             | 14:06-14:14 C6.13                                                                                                                           |                                                        |
| 14:26-14:34                                                                                                                                           |  | C6.8                                                      | <b>1598</b> <i>Simulation method for airworthiness verification of FMS integrated navigation based on aerodynamic-navigation decoupling</i> |                                                        |
| <b>504</b> <i>基于 UWB/气压计复合因子的共面无人机集群鲁棒协同定位方法</i>                                                                                                      |  |                                                           |                                                                                                                                             |                                                        |
| Tianxyu Wu                                                                                                                                            |  | Nanjing Univ. of Aeronautics and Astronautics             | Yilin Chen                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics          |
| Ling Zhang                                                                                                                                            |  | Nanjing Univ. of Aeronautics and Astronautics             | Rongbing Li                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics          |
| Chenfa Shi                                                                                                                                            |  | Nanjing Univ. of Aeronautics and Astronautics             | Zhengcheng Hou                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics          |
| Yilin Yang                                                                                                                                            |  | Nanjing Univ. of Aeronautics and Astronautics             | 14:14-14:22 C6.14                                                                                                                           |                                                        |
| Zihao Jin                                                                                                                                             |  | Nanjing Univ. of Aeronautics and Astronautics             | <b>1656</b> <i>Safety analysis of management-technology systems: a scenario-driven case study of the Boeing 737 MAX 8 accidents</i>         |                                                        |
| Zhi Xiong                                                                                                                                             |  | Nanjing Univ. of Aeronautics and Astronautics             | Xinran Chang                                                                                                                                | Tsinghua Univ.                                         |
| 14:34-14:42                                                                                                                                           |  | C6.9                                                      | Mengjin Qu                                                                                                                                  | Tsinghua Univ.                                         |
| <b>541</b> <i>MMA-DODT: Multi-model adaptive dynamic object detection and tracking</i>                                                                |  |                                                           |                                                                                                                                             |                                                        |
| Tao Shi                                                                                                                                               |  | Guilin Univ. of Electronic Technology                     | Qing Li                                                                                                                                     | Tsinghua Univ.                                         |
| Xiaohuan Li                                                                                                                                           |  | Guilin Univ. of Electronic Technology                     | <b>C7</b> <b>2nd Floor Longsheng Room</b>                                                                                                   |                                                        |
| Yichao Tang                                                                                                                                           |  | Guilin Univ. of Electronic Technology                     | <b>Perception GNC</b> <b>2 层 龙胜厅</b>                                                                                                        |                                                        |
| Zhecheng Song                                                                                                                                         |  | Guilin Univ. of Electronic Technology                     | Chairs: Shike Long                                                                                                                          |                                                        |
| Weilin chen                                                                                                                                           |  | Guilin Univ. of Electronic Technology                     | 13:30-13:38 C7.1                                                                                                                            |                                                        |
| Junxi Tian                                                                                                                                            |  | Guilin Univ. of Electronic Technology                     | <b>1325</b> <i>TS-YOLO for wind turbine blade defect detection</i>                                                                          |                                                        |
| 14:42-14:50                                                                                                                                           |  | C6.10                                                     | Meiyong Wang                                                                                                                                | Guangxi Univ.                                          |
| <b>1696</b> <i>Improving atom trapping performance of grating magneto-optical trap chips using flat-top beam</i>                                      |  |                                                           |                                                                                                                                             |                                                        |
| Yuchen Wang                                                                                                                                           |  | AVIC Xi'an Flight Automatic                               | Yongjun Wang                                                                                                                                | Guilin Univ. of Aerospace Technology                   |
|                                                                                                                                                       |  |                                                           | Maged Al-Barashi                                                                                                                            | Guilin Univ. of Aerospace Technology                   |
|                                                                                                                                                       |  |                                                           | 13:38-13:46 C7.2                                                                                                                            |                                                        |
| <b>741</b> <i>A segmented thermal compensation, turntable calibration, and weighted fusion method for redundant IMUS over wide temperature ranges</i> |  |                                                           |                                                                                                                                             |                                                        |
|                                                                                                                                                       |  |                                                           | Huichao Liu                                                                                                                                 | Shanghai W-Ibada High Tech. Group Co., Ltd.            |
|                                                                                                                                                       |  |                                                           | Bin Lan                                                                                                                                     | Guilin Univ. of Aerospace Technology                   |
|                                                                                                                                                       |  |                                                           | Shike Long                                                                                                                                  | Guilin Univ. of Aerospace technology                   |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Heran Wang                                                                                                                                                              | Shanghai W-Ibada High Tech. Group Co., Ltd. | Tianyou Han                                                                                                                                                                     | National Univ. of Defense Technology                               |
| 13:46-13:54                                                                                                                                                             | C7.3                                        | Bowen Xu                                                                                                                                                                        | National Univ. of Defense Technology                               |
| <b>979</b> <i>Attitude control method for multirotor unmanned aerial vehicles based on adaptive sliding mode control and a fractional-order extended state observer</i> |                                             | WeiQi Yang                                                                                                                                                                      | National Univ. of Defense Technology                               |
| Daofu He                                                                                                                                                                | Guilin Univ. of Electronic Technology       | Xianyu Wu                                                                                                                                                                       | National Univ. of Defense Technology                               |
| Shanlin Sun                                                                                                                                                             | Guilin Univ. of Aerospace Technology        | 14:50-14:58                                                                                                                                                                     | C7.11                                                              |
| Shike Long                                                                                                                                                              | Guilin Univ. of Aerospace Technology        | <b>1465</b> <i>Talent cultivation for aerospace GNC: research on teaching reform of virtual-real complementary and multidimensional symbiotic surface inspection technology</i> |                                                                    |
| 13:54-14:02                                                                                                                                                             | C7.4                                        | Bo Zhang                                                                                                                                                                        | Guilin Univ. of Aerospace Technology                               |
| <b>1160</b> <i>Informed-RRT*-based path planning with an improved artificial potential field and an adaptive guidance weight strategy</i>                               |                                             | Tianlong Huo                                                                                                                                                                    | Guilin Univ. of Aerospace Technology                               |
| Shilong Liu                                                                                                                                                             | Guilin Univ. of Electronic Technology       | Yu Luo                                                                                                                                                                          | Guilin Univ. of Aerospace Technology                               |
| Yongjun Wang                                                                                                                                                            | Guilin Univ. of Aerospace Technology        | Jinghua Li                                                                                                                                                                      | Guilin Univ. of Aerospace Technology                               |
| Maged Al-Barashi                                                                                                                                                        | Guilin Univ. of Aerospace Technology        | Nila Lan                                                                                                                                                                        | Guilin Univ. of Aerospace Technology                               |
| Lili Lu                                                                                                                                                                 | Guilin Univ. of Aerospace Technology        | 14:58-15:06                                                                                                                                                                     | C7.12                                                              |
| 14:02-14:10                                                                                                                                                             | C7.5                                        | <b>1472</b> <i>Whirl flutter analysis in different flight modes of tiltrotor aircraft</i>                                                                                       |                                                                    |
| <b>1184</b> <i>Research on an RS-YOLO-based UAV landing target detection method</i>                                                                                     |                                             | Mingchun Wang                                                                                                                                                                   | Guangdong Univ. of Technology                                      |
| Qiang Li                                                                                                                                                                | Guilin Univ. of Technology                  | Ruilan Chang                                                                                                                                                                    | Guilin Univ. of Aerospace Technology                               |
| Yongjun Wang                                                                                                                                                            | Guilin Univ. of Aerospace Technology        | Yongjun Wang                                                                                                                                                                    | Guilin Univ. of Aerospace Technology                               |
| Chunyao Zhang                                                                                                                                                           | Guilin Univ. of Technology                  | 15:06-15:14                                                                                                                                                                     | C7.13                                                              |
| 14:10-14:18                                                                                                                                                             | C7.6                                        | <b>1491</b> <i>Infrared information-assisted low-light image enhancement and fusion</i>                                                                                         |                                                                    |
| <b>1211</b> <i>Safe landing of a UAV based on MPC and high-order control barrier functionse</i>                                                                         |                                             | Shengjia An                                                                                                                                                                     | Guilin Univ. of Electronic Technology                              |
| Chunyao Zhang                                                                                                                                                           | Guilin Univ. of Technology                  | Zhi Li                                                                                                                                                                          | Guilin Univ. of Electronic Technology                              |
| Yongjun Wang                                                                                                                                                            | Guilin Univ. of Aerospace Technology        | Shaorong Zhang                                                                                                                                                                  | Guilin Univ. of Aerospace Technology                               |
| Qiang Li                                                                                                                                                                | Guilin Univ. of Technology                  | Yongjun Wang                                                                                                                                                                    | Guilin Univ. of Aerospace Technology                               |
| Maged Al-Barashi                                                                                                                                                        | Guilin Univ. of Aerospace Technology        | Bineng Zhong                                                                                                                                                                    | Guangxi Normal Univ.                                               |
| 14:18-14:26                                                                                                                                                             | C7.7                                        | Heng Li                                                                                                                                                                         | Guangxi Beitou IT Innovation Technology Investment Group Co., Ltd. |
| <b>1425</b> <i>PCA-Lasso based feature modeling and cholesterol prediction using bioimpedance spectroscopy</i>                                                          |                                             | 15:14-15:22                                                                                                                                                                     | C7.14                                                              |
| Haoyue Xue                                                                                                                                                              | Guilin Univ. of Aerospace Technology        | <b>1521</b> <i>A novel method based on non-convex log regularization and fisher discriminant criterion constraint for motor imagery brain-computer interface decoding</i>       |                                                                    |
| Chuanpei Xu                                                                                                                                                             | Guilin Univ. of Electronic Technology       | Benxin Zhang                                                                                                                                                                    | Guilin Univ. of Electronic Technology                              |
| Jianbo Ji                                                                                                                                                               | Guilin Univ. of Aerospace Technology        | Yan Dong                                                                                                                                                                        | Guilin Univ. of Electronic Technology                              |
| Zhen Zhang                                                                                                                                                              | Guilin Univ. of Aerospace Technology        | Yuanpeng Liang                                                                                                                                                                  | Guilin Univ. of Electronic Technology                              |
| Peng Tang                                                                                                                                                               | Guilin Univ. of Electronic Technology       | Yi Li                                                                                                                                                                           | Guilin Univ. of Electronic Technology                              |
| 14:26-14:34                                                                                                                                                             | C7.8                                        | Tingshun Jia                                                                                                                                                                    | Guilin Univ. of Electronic Technology                              |
| <b>1429</b> <i>Predefined-time trajectory tracking control for quadrotor circumnavigation of dynamic ground targets</i>                                                 |                                             | Yiru Guo                                                                                                                                                                        | Guilin Univ. of Electronic Technology                              |
| Hua Tan                                                                                                                                                                 | Guilin Univ. of Aerospace Technology        | Shaorong Zhang                                                                                                                                                                  | Guilin Univ. of Aerospace Technology                               |
| Xinchen Kang                                                                                                                                                            | Guilin Univ. of Aerospace Technology        | 15:22-15:30                                                                                                                                                                     | C7.15                                                              |
| Shike Long                                                                                                                                                              | Guilin Univ. of Aerospace technology        | <b>1526</b> <i>FTAWB: An interactive fault tree analysis workbench for efficient aerospace system safety assessment</i>                                                         |                                                                    |
| Yongjun Wang                                                                                                                                                            | Guilin Univ. of Aerospace Technology        | Wei Luo                                                                                                                                                                         | Guilin Univ. of Electronic Technology                              |
| 14:34-14:42                                                                                                                                                             | C7.9                                        |                                                                                                                                                                                 |                                                                    |
| <b>1451</b> 基于双期相图像特征适配迁移网络的胃肿瘤分类方法                                                                                                                                     |                                             | <b>C8</b>                                                                                                                                                                       | <b>2nd Floor Guilin Room 1</b>                                     |
| Yu Liu                                                                                                                                                                  | Guilin Univ. of Aerospace Technology        | <b>Cross-domain GNC</b>                                                                                                                                                         | <b>2 层 桂林厅 1</b>                                                   |
| Liebin Huang                                                                                                                                                            | Jiangmen Central Hospital                   | Chairs: Qiang Shen                                                                                                                                                              |                                                                    |
| Qinxian Chen                                                                                                                                                            | Jiangmen Central Hospital                   | 13:30-13:38                                                                                                                                                                     | C8.1                                                               |
| Huimin Xue                                                                                                                                                              | Jiangmen Central Hospital                   | <b>347</b> <i>Generative-estimation synergy via bayesian reshaping of semantic priors for autonomous perception</i>                                                             |                                                                    |
| Yunde Li                                                                                                                                                                | Guilin Univ. of Aerospace Technology        | Ming Lei                                                                                                                                                                        | Shanghai Jiao Tong Univ.                                           |
| Wansheng Long                                                                                                                                                           | Jiangmen Central Hospital                   | Shufan Wu                                                                                                                                                                       | Shanghai Jiao Tong Univ.                                           |
| Bao Feng                                                                                                                                                                | Guilin Univ. of Aerospace Technology        | 13:38-13:46                                                                                                                                                                     | C8.2                                                               |
| 14:42-14:50                                                                                                                                                             | C7.10                                       | <b>348</b> <i>Structured semantic priors-based robust multi-object tracking in cislunar environments</i>                                                                        |                                                                    |
| <b>1305</b> <i>Fault estimation and fault-tolerant control for control surface electromechanical actuators subject to effectiveness degradation</i>                     |                                             | Ming Lei                                                                                                                                                                        | Shanghai Jiao Tong Univ.                                           |

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|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------|-------|
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      | 13:46-13:54 | C8.3  |
| 455 3D Gaussian splatting reconstruction for vision-aided spacecraft inspection                                      |                                               |             |       |
| Wenlong Lu                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Fanqing Tu                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Qiang Shen                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| Yong Wang                                                                                                            | Beijing Institute of Control Engineering      |             |       |
| Vladimir Yu Razoumny                                                                                                 | RUDN Univ.                                    | 13:54-14:02 | C8.4  |
| 756 Anchor-point based Earth-Moon transfer trajectory design                                                         |                                               |             |       |
| Fanqing Tu                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Yongchun Xie                                                                                                         | Beijing Institute of Control Engineering      |             |       |
| Wenlong Lu                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| 14:02-14:10                                                                                                          |                                               |             | C8.5  |
| 917 Research on a named entity recognition scheme for aerospace guidance, navigation, and control                    |                                               |             |       |
| Yi Sun                                                                                                               | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:10-14:18                                                                                                          |                                               |             | C8.6  |
| 922 An intelligent star identification algorithm based on coarse-to-fine hierarchical matching                       |                                               |             |       |
| Zhichao Huang                                                                                                        | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:18-14:26                                                                                                          |                                               |             | C8.7  |
| 925 SG-GRNet: Anti-interference and morphological perception detection algorithm for complex space station scenarios |                                               |             |       |
| Zile Zhou                                                                                                            | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:26-14:34                                                                                                          |                                               |             | C8.8  |
| 943 An improved Votenet for 3D object detection in point clouds for space station scenarios                          |                                               |             |       |
| Guorong Zhang                                                                                                        | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:34-14:42                                                                                                          |                                               |             | C8.9  |
| 957 A high-precision visual localization and semantic-enhanced mapping method for dynamic space environments         |                                               |             |       |
| Wenwen Lu                                                                                                            | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| Guohong Wang                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| Yifan Peng                                                                                                           | The Chinese Univ. of Hong Kong, Shen Zhen     |             |       |
| 14:42-14:50                                                                                                          |                                               |             | C8.10 |
| 969 Research on small target detection for spacecraft in complex space backgrounds                                   |                                               |             |       |
| Jiawen Qiao                                                                                                          | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:50-14:58                                                                                                          |                                               |             | C8.11 |
| 1004 SGC-Net: semantic-guided cross-modal modeling for RGB-D semantic segmentation in spaceborne environments        |                                               |             |       |
| Zihong Yang                                                                                                          | Nanjing Univ. of Science and Technology       |             |       |
| Yukang Heng                                                                                                          | Nanjing Univ. of Science and Technology       |             |       |
| Yifei Wu                                                                                                             | Nanjing Univ. of Science and Technology       |             |       |
| Qingwei Chen                                                                                                         | Nanjing Univ. of Science and Technology       |             |       |
| 14:58-15:06                                                                                                          |                                               |             | C8.12 |
| 1161 Plane point set registration method for long-distance targets                                                   |                                               |             |       |
| Chenrong Long                                                                                                        | Beijing Institute of Control Engineering      |             |       |
| Heng Shi                                                                                                             | Beijing Institute of Control Engineering      |             |       |
| Qiang Yu                                                                                                             | Beijing Institute of Control Engineering      |             |       |
| Xiaoxiang Liu                                                                                                        | Beijing Institute of Control Engineering      |             |       |
| 15:06-15:14                                                                                                          |                                               |             | C8.13 |
| 1212 双臂空间机器人协同力/阻抗无源性控制方法                                                                                            |                                               |             |       |
| Hang Zhou                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| Qiang Shen                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| 15:14-15:22                                                                                                          |                                               |             | C8.14 |
| 1310 在轨服务中基础视觉模型协同解析与轻量化部署发展综述                                                                                       |                                               |             |       |
| Zifang Wang                                                                                                          | Beijing Institute of Control Engineering      |             |       |
| Yongchun Xie                                                                                                         | Beijing Institute of Control Engineering      |             |       |
| Yong Wang                                                                                                            | Beijing Institute of Control Engineering      |             |       |
| 15:22-15:30                                                                                                          |                                               |             | C8.15 |
| 1422 Evolution strategy-based minimum-fuel transfer trajectory in the Earth-Moon three-body system                   |                                               |             |       |
| Chi Han                                                                                                              | Shanghai Jiao Tong Univ.                      |             |       |
| Changqing Chen                                                                                                       | Beijing Institute of Control Engineering      |             |       |
| Fanqing Tu                                                                                                           | Shanghai Jiao Tong Univ.                      |             |       |
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| C9                                                                                                                   | 2nd Floor Guilin Room 2                       |             |       |
| Positioning GNC                                                                                                      | 2 层 桂林厅 2                                     |             |       |
| Chairs: Xiaoyun Sun                                                                                                  |                                               |             |       |
| 13:30-13:38                                                                                                          |                                               |             | C9.1  |
| 152 基于逐点线性化的无托曳航天器编队分群一致性自适应姿态控制                                                                                     |                                               |             |       |
| Haoyu Zheng                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics |             |       |
| Xiaoyun Sun                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics |             |       |
| Shufan Wu                                                                                                            | Shanghai Jiao Tong Univ.                      |             |       |
| 13:38-13:46                                                                                                          |                                               |             | C9.2  |
| 361 Coupling effect between capacitive displacement sensing unit and feedback control unit                           |                                               |             |       |
| Hong Yang                                                                                                            | Huazhong Univ. of Science and Technology      |             |       |
| Hong Ma                                                                                                              | Huazhong Univ. of Science and Technology      |             |       |
| Hua Zhang                                                                                                            | Huazhong Univ. of Science and Technology      |             |       |
| Chong Zou                                                                                                            | Huazhong Univ. of Science and Technology      |             |       |
| Yihe Chen                                                                                                            | Huazhong Univ. of Science and Technology      |             |       |
| Lei Wang                                                                                                             | Huazhong Univ. of Science and Technology      |             |       |
| 13:46-13:54                                                                                                          |                                               |             | C9.3  |
| 400 空间惯性传感器数字驱动建模及仿真验证                                                                                               |                                               |             |       |
| Zhu Zhu                                                                                                              | Shanghai Institute of Satellite Engineering   |             |       |
| Fan Zhang                                                                                                            | Sun Yat-sen Univ.                             |             |       |
| Qianyun Zhang                                                                                                        | Shanghai Jiao Tong Univ.                      |             |       |
| Jinjin Xie                                                                                                           | Southeast Univ.                               |             |       |
| Yi Xu                                                                                                                | Shanghai Institute of Satellite Engineering   |             |       |

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|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Engineering                                                                                                                   |                                          | Shaobo Qu                                                                                                                                    | Huazhong Univ. of Science and Technology |
| 13:46-13:54                                                                                                                   | C9.4                                     | Ming Hu                                                                                                                                      | Huazhong Univ. of Science and Technology |
| <b>412</b> <i>Design and implementation of a highly stable carrier generation and amplitude-phase control system</i>          |                                          | Yanzheng Bai                                                                                                                                 | Huazhong Univ. of Science and Technology |
| Jiawen Lan                                                                                                                    | Huazhong Univ. of Science and Technology | Zebing Zhou                                                                                                                                  | Huazhong Univ. of Science and Technology |
| Jinhong Zou                                                                                                                   | Huazhong Univ. of Science and Technology | 14:26-14:34 C9.9                                                                                                                             |                                          |
| Zhiwen Xiao                                                                                                                   | Huazhong Univ. of Science and Technology | <b>1087</b> <i>空间惯性传感器静电反馈控制系统设计与测试</i>                                                                                                      |                                          |
| Liang Lang                                                                                                                    | Huazhong Univ. of Science and Technology | Hao Xu                                                                                                                                       | Shanghai Jiao Tong Univ.                 |
| Quanliang Huang                                                                                                               | Huazhong Univ. of Science and Technology | Qianyun Zhang                                                                                                                                | Shanghai Jiao Tong Univ.                 |
| Jia He                                                                                                                        | China Ship Development and Design Center | Shufan Wu                                                                                                                                    | Shanghai Jiao Tong Univ.                 |
| Liangqi Gui                                                                                                                   | Huazhong Univ. of Science and Technology | 14:34-14:42 C9.10                                                                                                                            |                                          |
| 13:54-14:02                                                                                                                   | C9.5                                     | <b>1178</b> <i>Long short-term memory-based sliding mode recovery control strategy for drag-free satellites under micrometeoroid impacts</i> |                                          |
| <b>873</b> <i>Stability analysis of the mode switching from accelerometer mode to drag-free mode</i>                          |                                          | Ya Wen                                                                                                                                       | Sun Yat-sen Univ.                        |
| Peng Zhou                                                                                                                     | Sun Yat-sen Univ.                        | Dexuan Zhang                                                                                                                                 | Sun Yat-sen Univ.                        |
| Sikai Miao                                                                                                                    | Sun Yat-sen Univ.                        | Hongyin Li                                                                                                                                   | Sun Yat-sen Univ.                        |
| Jiaxin Jiang                                                                                                                  | Sun Yat-sen Univ.                        | Guoying Zhao                                                                                                                                 | Sun Yat-sen Univ.                        |
| Junxiang Lian                                                                                                                 | Sun Yat-sen Univ.                        | Junxiang Lian                                                                                                                                | Sun Yat-sen Univ.                        |
| Hongyin Li                                                                                                                    | Sun Yat-sen Univ.                        | 14:42-14:50 C9.11                                                                                                                            |                                          |
| Guoying Zhao                                                                                                                  | Sun Yat-sen Univ.                        | <b>1225</b> <i>模式切换的空间惯性传感器检验质量非仿射静电悬浮控制</i>                                                                                                 |                                          |
| 14:02-14:10                                                                                                                   | C9.6                                     | Mingze Chen                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| <b>895</b> <i>微推进器单向约束下引力波探测卫星倾斜平动耦合动力学建模与频域特性研究</i>                                                                          |                                          | Baocang Gao                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| Junhao Lian                                                                                                                   | Sun Yat-sen Univ.                        | Xiaoyun Sun                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| Weikai Kong                                                                                                                   | Sun Yat-sen Univ.                        | Shufan Wu                                                                                                                                    | Shanghai Jiao Tong Univ.                 |
| Dexuan Zhang                                                                                                                  | Sun Yat-sen Univ.                        | 14:50-14:58 C9.12                                                                                                                            |                                          |
| Hongyin Li                                                                                                                    | Sun Yat-sen Univ.                        | <b>1284</b> <i>无拖曳航天器平台姿轨耦合动力学及其一致性全驱动控制</i>                                                                                                 |                                          |
| Junxiang Lian                                                                                                                 | Sun Yat-sen Univ.                        | Ziang Li                                                                                                                                     | Nanjing Univ. of Science and Technology  |
| Guoying Zhao                                                                                                                  | Sun Yat-sen Univ.                        | Xiaoyun Sun                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| 14:10-14:18                                                                                                                   | C9.7                                     | Qiang Shen                                                                                                                                   | Shanghai Jiao Tong Univ.                 |
| <b>921</b> <i>Reliability improvement study of parallel reference sources for space inertial sensor driving circuits</i>      |                                          | Huajun Gong                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| Zhe Han                                                                                                                       | Northeast Forestry Univ.                 | Ju Jiang                                                                                                                                     | Nanjing Univ. of Science and Technology  |
| Jiawei Zhang                                                                                                                  | Northeast Forestry Univ.                 | Shufan Wu                                                                                                                                    | Shanghai Jiao Tong Univ.                 |
| Qinbo Ma                                                                                                                      | Northeast Forestry Univ.                 | 14:58-15:06 C9.13                                                                                                                            |                                          |
| Chong Mo                                                                                                                      | Northeast Forestry Univ.                 | <b>1382</b> <i>柔性航天器编队分段一致性自适应重指向控制</i>                                                                                                      |                                          |
| Liang Chen                                                                                                                    | Northeast Forestry Univ.                 | Xinglong Zhang                                                                                                                               | Nanjing Univ. of Science and Technology  |
| Honghui Gao                                                                                                                   | Northeast Forestry Univ.                 | Ziyuan Ma                                                                                                                                    | Suzhou Univ. of Science and Technology   |
| Ming Hu                                                                                                                       | Huazhong Univ. of Science and Technology | Haobo Wen                                                                                                                                    | Nanjing Univ. of Science and Technology  |
| Jianping Huang                                                                                                                | Northeast Forestry Univ.                 | Xiaoyun Sun                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| 14:18-14:26                                                                                                                   | C9.8                                     | Xinhua Wang                                                                                                                                  | Nanjing Univ. of Science and Technology  |
| <b>1072</b> <i>On-Ground test method, technology and application of space inertial sensor based on semiphsical simulation</i> |                                          | 15:14-15:22 C9.14                                                                                                                            |                                          |
| Yusheng Jie                                                                                                                   | Huazhong Univ. of Science and Technology | <b>1704</b> <i>Multibody dynamics and visual simulation of TianQin satellites under typical perturbations</i>                                |                                          |
| Zhihao Liu                                                                                                                    | Huazhong Univ. of Science and Technology | Jiaxin Jiang                                                                                                                                 | Sun Yat-sen Univ.                        |
| Cheng Ma                                                                                                                      | Huazhong Univ. of Science and Technology | Dexuan Zhang                                                                                                                                 | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | Sikao Miao                                                                                                                                   | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | Peng Zhou                                                                                                                                    | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | Hongyin Li                                                                                                                                   | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | Guoying Zhao                                                                                                                                 | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | Junxiang Lian                                                                                                                                | Sun Yat-sen Univ.                        |
|                                                                                                                               |                                          | 15:22-15:30 C9.15                                                                                                                            |                                          |
|                                                                                                                               |                                          | <b>1256</b> <i>Fault tree analysis for safety assessment of civil aircraft high-lift system</i>                                              |                                          |

|                                                                                                                         |                                                           |                                                                                                                                                 |                                      |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Qing Xu                                                                                                                 | COMAC Shanghai Aircraft Design<br>and Research Institute  | Tongwei Ma                                                                                                                                      | National Univ. of Defense Technology |
| Sikai Wu                                                                                                                | National Univ. of Defense Technology                      | Sikai Wu                                                                                                                                        | National Univ. of Defense Technology |
| Yangfan Xu                                                                                                              | National Univ. of Defense Technology                      | Yangfan Xu                                                                                                                                      | National Univ. of Defense Technology |
| Xiaofeng He                                                                                                             | National Univ. of Defense Technology                      | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| Lilian Zhang                                                                                                            | National Univ. of Defense Technology                      | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
| <b>C10</b>                                                                                                              |                                                           | <b>C10.7</b>                                                                                                                                    |                                      |
| <b>2nd Floor VIP Room 2</b>                                                                                             |                                                           | <b>C10.8</b>                                                                                                                                    |                                      |
| <b>Adaptive GNC</b>                                                                                                     |                                                           | <b>C10.9</b>                                                                                                                                    |                                      |
| Chairs: Xiaofeng He                                                                                                     |                                                           | <b>C10.10</b>                                                                                                                                   |                                      |
| 13:30-13:38                                                                                                             | C10.1                                                     | 14:18-14:26                                                                                                                                     | C10.7                                |
| <b>1006 Aircraft control method based on four-mode hybrid control and TD3</b>                                           |                                                           | <b>891 Improving end-to-end visual odometry with differentiable multi-frame pose adjustment</b>                                                 |                                      |
| Yongliang Hu                                                                                                            | Northwestern Polytechnical Univ.                          | Pengdong Wu                                                                                                                                     | National Univ. of Defense Technology |
| Jingping Shi                                                                                                            | Northwestern Polytechnical Univ.                          | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
| Yongxi Lyu                                                                                                              | Northwestern Polytechnical Univ.                          | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
| 13:38-13:46                                                                                                             | C10.2                                                     | Yangfan Xu                                                                                                                                      | National Univ. of Defense Technology |
| <b>355 Design of a heterogeneous UAV swarm command and control test system based on a distributed architecture</b>      |                                                           | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| Yunkai Ma                                                                                                               | Xi'an Modern Control Technology<br>Research Institute     | 14:26-14:34                                                                                                                                     | C10.8                                |
| Lisha Yao                                                                                                               | Xi'an Modern Control Technology<br>Research Institute     | <b>902 An adaptive dual-stream infrared visual-inertial odometry based on cross-attention fusion</b>                                            |                                      |
| Rizhong Wang                                                                                                            | Xi'an Modern Control Technology<br>Research Institute     | Ning Han                                                                                                                                        | National Univ. of Defense Technology |
| Haotian Shi                                                                                                             | Xi'an Modern Control Technology<br>Research Institute     | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| Xiaowen Xi                                                                                                              | Xi'an Modern Control Technology<br>Research Institute     | Yangfan Xu                                                                                                                                      | National Univ. of Defense Technology |
| Ping Li                                                                                                                 | Xi'an Modern Control Technology<br>Research Institute     | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
| 13:46-13:54                                                                                                             | C10.3                                                     | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
| <b>403 Research on predefined-time incremental sliding mode control for wing-damaged tailless aircraft</b>              |                                                           | 14:34-14:42                                                                                                                                     | C10.9                                |
| Kecheng Li                                                                                                              | Northwestern Polytechnical Univ.                          | <b>1226 Adaptive-weighting tightly coupled mmWave radar/inertial integrated navigation via point-wise radial-velocity confidence assessment</b> |                                      |
| Qun Zuo                                                                                                                 | Xi'an Modern Control Technology<br>Research Institute     | Yunmu Duan                                                                                                                                      | National Univ. of Defense Technology |
| Yuewen Wang                                                                                                             | Northwestern Polytechnical Univ.                          | Ruiguang He                                                                                                                                     | National Univ. of Defense Technology |
| Xiaoxiong Liu                                                                                                           | Northwestern Polytechnical Univ.                          | Zixuan Xie                                                                                                                                      | National Univ. of Defense Technology |
| 13:54-14:02                                                                                                             | C10.4                                                     | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| <b>437 Research on preview incremental nonlinear dynamic inversion for flight trajectory control</b>                    |                                                           | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
| Xiaochen Lyu                                                                                                            | Northwestern Polytechnical Univ.                          | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
| Shipeng Wang                                                                                                            | Northwestern Polytechnical Univ.                          | 14:42-14:50                                                                                                                                     | C10.10                               |
| Yongxi Lyu                                                                                                              | Northwestern Polytechnical Univ.                          | <b>1262 An improved UAV swarm cooperative navigation algorithm with robust low-rank distance matrix recovery in GNSS-denied environments</b>    |                                      |
| Jingping Shi                                                                                                            | Northwestern Polytechnical Univ.                          | You He                                                                                                                                          | National Univ. of Defense Technology |
| 14:02-14:10                                                                                                             | C10.5                                                     | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| <b>438 Dynamic transition corridor and optimal transition trajectory for VTOL aircraft</b>                              |                                                           | Xincan Luo                                                                                                                                      | National Univ. of Defense Technology |
| Qi Zhu                                                                                                                  | Northwestern Polytechnical Univ.                          | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
| Jingping Shi                                                                                                            | Northwestern Polytechnical Univ.                          | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
| Yongxi Lyu                                                                                                              | Northwestern Polytechnical Univ.                          | 14:50-14:58                                                                                                                                     | C10.11                               |
| Xiaobo Qu                                                                                                               | Northwestern Polytechnical Univ.                          | <b>1286 An inertial-ranging integrated cooperative navigation approach with ranging compensation during bidirectional ranging</b>               |                                      |
| Fuxiang Qiao                                                                                                            | AVIC Xi'an Flight Automatic<br>Control Research Institute | Qihao Hu                                                                                                                                        | National Univ. of Defense Technology |
| Shaomin He                                                                                                              | AVIC Xi'an Flight Automatic<br>Control Research Institute | Xincan Luo                                                                                                                                      | National Univ. of Defense Technology |
| 14:10-14:18                                                                                                             | C10.6                                                     | Zhonghai Cheng                                                                                                                                  | National Univ. of Defense Technology |
| <b>728 A two-stage calibration method for microarray skylight polarized compass using second-harmonic decomposition</b> |                                                           | Xiaofeng He                                                                                                                                     | National Univ. of Defense Technology |
| Lianwei Teng                                                                                                            | National Univ. of Defense Technology                      | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
| Chen Fan                                                                                                                | National Univ. of Defense Technology                      | 14:58-15:06                                                                                                                                     | C10.12                               |
|                                                                                                                         |                                                           | <b>1299 Consensus regrouping: bounded-state streaming visual geometry with frozen predictors</b>                                                |                                      |
|                                                                                                                         |                                                           | Tianci Liu                                                                                                                                      | National Univ. of Defense Technology |
|                                                                                                                         |                                                           | Lilian Zhang                                                                                                                                    | National Univ. of Defense Technology |
|                                                                                                                         |                                                           | Yangfan Xu                                                                                                                                      | National Univ. of Defense Technology |
|                                                                                                                         |                                                           | Jun Mao                                                                                                                                         | National Univ. of Defense Technology |
|                                                                                                                         |                                                           | 15:06-15:14                                                                                                                                     | C10.13                               |
|                                                                                                                         |                                                           | <b>1554 Robust forward-looking sonar SLAM via location-aware ICP</b>                                                                            |                                      |

and geometry-aware constraint factors

|              |                          |
|--------------|--------------------------|
| Xinyao Wei   | Harbin Engineering Univ. |
| Zhongben Zhu | Harbin Engineering Univ. |
| Xiaokai Mu   | Harbin Engineering Univ. |
| Hongde Qin   | Harbin Engineering Univ. |
| 15:14-15:22  | C10.14                   |

**1635** Wave distortion restoration-based orientation methodology for underwater polarization navigation

|               |                                 |
|---------------|---------------------------------|
| Daizhuo Huang | Beijing Institute of Technology |
| Xia wang      | Beijing Institute of Technology |
| Yuyang Li     | Beijing Institute of Technology |
| 15:22-15:30   | C10.15                          |

**1637** Histogram of the orientation distribution of the center-weighted descriptor for multi-modal remote sensing image matching

|              |                                 |
|--------------|---------------------------------|
| Zhirui Zhang | Beijing Institute of Technology |
| Xia Wang     | Beijing Institute of Technology |
| Fengwen Mi   | Beijing Institute of Technology |

**C12 2nd Floor Aisel  
Poster Session 2 层连廊厅**

Chairs: Yuming Meng

08:30-12:00 C12.1

**1238** An improved ant colony algorithm-based method for unmanned aerial vehicle obstacle avoidance path planning

|               |                                                        |
|---------------|--------------------------------------------------------|
| Yifei Pei     | AVIC Xi'an Flight Automatic Control Research Institute |
| Pu Chen       | AVIC Xi'an Flight Automatic Control Research Institute |
| Guoliang Yang | AVIC Xi'an Flight Automatic Control Research Institute |
| Jinhong Zhang | AVIC Xi'an Flight Automatic Control Research Institute |
| Ze Zhang      | AVIC Xi'an Flight Automatic Control Research Institute |
| Mengxue Nie   | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00   | C12.2                                                  |

**1450** 面向区域目标的在线启发式多星协同调度方法

|                |                                               |
|----------------|-----------------------------------------------|
| Xinxi Zeng     | Nanjing Univ. of Aeronautics and Astronautics |
| Dianyuan Zhang | Nanjing Univ. of Aeronautics and Astronautics |
| Xvxing Huang   | Nanjing Univ. of Aeronautics and Astronautics |
| Shuang Li      | Nanjing Univ. of Aeronautics and Astronautics |
| 08:30-12:00    | C12.3                                         |

**1555** Path planning for carrier aircraft hangar dispatch under towbarless towing kinematic constraints

|                |                                                     |
|----------------|-----------------------------------------------------|
| Yu Wu          | Univ. of Electronic Science and Technology of China |
| Guo Lin        | Univ. of Electronic Science and Technology of China |
| Tianjiao Liang | AVIC Chengdu Aircraft Design and Research Institute |
| Xiaoming Chen  | AVIC Chengdu Aircraft Design and Research Institute |

|             |                                                     |
|-------------|-----------------------------------------------------|
| Weihao Li   | Univ. of Electronic Science and Technology of China |
| Mengji Shi  | Univ. of Electronic Science and Technology of China |
| Kaiyu Qin   | Univ. of Electronic Science and Technology of China |
| 08:30-12:00 | C12.4                                               |

**1588** Comprehensive evaluation and analysis of planned paths for ROVs under different deployment positions

|             |                                                   |
|-------------|---------------------------------------------------|
| Yanbin Teng | Taihu Laboratory of Deepsea Technological Science |
| Lan Wu      | Taihu Laboratory of Deepsea Technological Science |
| Yali Fan    | Taihu Laboratory of Deepsea Technological Science |
| 08:30-12:00 | C12.5                                             |

**1589** Evolution-based optimization for carrier-based aircraft arrangement on an aircraft carrier flight deck

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Yu Wu           | Univ. of Electronic Science and Technology of China |
| Jiaxin Yang     | Univ. of Electronic Science and Technology of China |
| Zehao Xie       | AVIC Chengdu Aircraft Design and Research Institute |
| Chuanxiang Zhou | AVIC Chengdu Aircraft Design and Research Institute |
| Boxian Lin      | Univ. of Electronic Science and Technology of China |
| Weihao Li       | Univ. of Electronic Science and Technology of China |
| Mengji Shi      | Univ. of Electronic Science and Technology of China |
| 08:30-12:00     | C12.6                                               |

**1599** 冗余自由度空间机械臂建模分析与运动控制

|               |               |
|---------------|---------------|
| Jiashuo Zhang | Beihang Univ. |
| Xinying Yu    | Beihang Univ. |
| Hankai Zhao   | Beihang Univ. |
| Xiang Lin     | Beihang Univ. |
| Zichen Guo    | Beihang Univ. |
| Shengqi Yang  | Beihang Univ. |
| Xiao Xue      | Beihang Univ. |
| Jiaqing He    | Beihang Univ. |
| Rui Cheng     | Beihang Univ. |
| Haichao Gui   | Beihang Univ. |
| 08:30-12:00   | C12.7         |

**1617** Design and implementation of ROS-based food delivery robot with ICP secondary positioning

|              |                             |
|--------------|-----------------------------|
| Hongfeng Zhu | Jingchu Univ. of Technology |
| Kejun Zhang  | Jingchu Univ. of Technology |
| Xue Chen     | Jingchu Univ. of Technology |
| Jingyi Huang | Jingchu Univ. of Technology |
| Jing Luo     | Jingchu Univ. of Technology |
| 08:30-12:00  | C12.8                       |

**1653** 基于 ResNet-FPN 方向场引导的自适应 RRT\* 路径规划算法

|              |               |
|--------------|---------------|
| Guanyu Jiang | Beihang Univ. |
| Zhuoxuan Wu  | Beihang Univ. |
| Kun Wu       | Beihang Univ. |

|                                                                                                                                               |                                                                     |                                                                                                                                                              |                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Houhua Bian                                                                                                                                   | Beihang Univ.                                                       | Shaobo Zhai                                                                                                                                                  | Northwestern Polytechnical Univ.                 |
| 08:30-12:00                                                                                                                                   | C12.9                                                               | 08:30-12:00                                                                                                                                                  | C12.16                                           |
| <b>947</b> <i>A dynamic UAV target allocation method based on a feasibility matrix</i>                                                        |                                                                     | <b>1077</b> <i>Identification of Key Nodes in Flight Conflicts for UAV Swarms Based on Complex Networks</i>                                                  |                                                  |
| Siyu Tao                                                                                                                                      | Beihang Univ.                                                       | Ziyan Zhang                                                                                                                                                  | Air Force Engineering Univ.                      |
| Chenyu Wang                                                                                                                                   | Beihang Univ.                                                       | Xiaolong Liang                                                                                                                                               | Air Force Engineering Univ.                      |
| Yunjie Wu                                                                                                                                     | Beihang Univ.                                                       | Aoyu Zheng                                                                                                                                                   | Air Force Engineering Univ.                      |
| 08:30-12:00                                                                                                                                   | C12.10                                                              | Han Wang                                                                                                                                                     | Air Force Engineering Univ.                      |
| <b>467</b> <i>Automatic ground collision avoidance control method based on explicit model command trajectory prediction</i>                   |                                                                     | Zhongjiacen                                                                                                                                                  | Air Force Engineering Univ.                      |
| Furui Yu                                                                                                                                      | AVIC Shenyang Aircraft Design and Research Institute                | Zhiyang Zhang                                                                                                                                                | Air Force Engineering Univ.                      |
| Hao Liu                                                                                                                                       | AVIC Shenyang Aircraft Design and Research Institute                | Shuangyan Chen                                                                                                                                               | Air Force Engineering Univ.                      |
| Jiawei Yang                                                                                                                                   | AVIC Shenyang Aircraft Design and Research Institute                | Yuyan Xiao                                                                                                                                                   | Air Force Engineering Univ.                      |
| Shili Dong                                                                                                                                    | AVIC Shenyang Aircraft Design and Research Institute                | Huanyang Lou                                                                                                                                                 | Air Force Engineering Univ.                      |
| Fangliu Jin                                                                                                                                   | AVIC Shenyang Aircraft Design and Research Institute                | 08:30-12:00                                                                                                                                                  | C12.17                                           |
| 08:30-12:00                                                                                                                                   | C12.11                                                              | <b>1384</b> <i>Fuzzy logic decision-making and neural network incremental dynamic inversion-based attitude control of an aircraft with pilot mishandling</i> |                                                  |
| <b>613</b> <i>Variable-parameter impedance control based on the improved sparrow search algorithm</i>                                         |                                                                     | Qian Zhang                                                                                                                                                   | Shanghai Jiao Tong Univ.                         |
| Zhengyu Qu                                                                                                                                    | Northwestern Polytechnical Univ.                                    | Weizhi Lyu                                                                                                                                                   | Shanghai Jiao Tong Univ.                         |
| Zicheng Fan                                                                                                                                   | Northwestern Polytechnical Univ.                                    | Congjie Yang                                                                                                                                                 | Shanghai Jiao Tong Univ.                         |
| Jingzhou Gong                                                                                                                                 | Northwestern Polytechnical Univ.                                    | Jiaxin Chen                                                                                                                                                  | Shanghai Jiao Tong Univ.                         |
| Yaohong Qu                                                                                                                                    | Northwestern Polytechnical Univ.                                    | Shumin Pu                                                                                                                                                    | Shanghai Jiao Tong Univ.                         |
| 08:30-12:00                                                                                                                                   | C12.12                                                              | Shiqian Liu                                                                                                                                                  | Shanghai Jiao Tong Univ.                         |
| <b>646</b> <i>A feedback-based trajectory prediction and collision correction estimation method for the ground collision avoidance system</i> |                                                                     | Lianyu Guo                                                                                                                                                   | Shanghai Jiao Tong Univ.                         |
| Zhigang Luo                                                                                                                                   | Aviation Key Laboratory of Science and Technology on Flight Control | Yunxin Meng                                                                                                                                                  | Shanghai Jiao Tong Univ.                         |
| Ke Yu                                                                                                                                         | Aviation Key Laboratory of Science and Technology on Flight Control | 08:30-12:00                                                                                                                                                  | C12.18                                           |
| Chao Jiang                                                                                                                                    | Aviation Key Laboratory of Science and Technology on Flight Control | <b>1685</b> <i>Input-compatible flight-envelope protection of underactuated hypersonic vehicles with asymmetric actuator saturation</i>                      |                                                  |
| Xiaofeng Sun                                                                                                                                  | Aviation Key Laboratory of Science and Technology on Flight Control | Jinlu Dong                                                                                                                                                   | Shanghai Jiao Tong Univ.                         |
| Longzhen Hu                                                                                                                                   | Aviation Key Laboratory of Science and Technology on Flight Control | Mingdong Hou                                                                                                                                                 | Shanghai Jiao Tong Univ.                         |
| 08:30-12:00                                                                                                                                   | C12.13                                                              | Renming Yang                                                                                                                                                 | Shanghai Jiao Tong Univ.                         |
| <b>775</b> <i>Research on safety risks of helicopter flight testing</i>                                                                       |                                                                     | 08:30-12:00                                                                                                                                                  | C12.19                                           |
| Huiwen Han                                                                                                                                    | Chinese Flight Test Establishment of AVIC                           | <b>126</b> <i>Research on the progress and supporting technologies of cross domain unmanned aerial vehicle cluster</i>                                       |                                                  |
| 08:30-12:00                                                                                                                                   | C12.14                                                              | Mingqiu Ren                                                                                                                                                  | Air Force Early Warning Academy                  |
| <b>878</b> <i>基于面部特征融合的飞行员疲劳检测算法</i>                                                                                                          |                                                                     | Bingqie Wang                                                                                                                                                 | Air Force Early Warning Academy                  |
| Genchao Liu                                                                                                                                   | Beihang Univ.                                                       | Yi Leng                                                                                                                                                      | Air Force Early Warning Academy                  |
| Kun Wu                                                                                                                                        | Beihang Univ.                                                       | 08:30-12:00                                                                                                                                                  | C12.20                                           |
| Liucheng Xu                                                                                                                                   | Beihang Univ.                                                       | <b>505</b> <i>Distributed cooperative guidance for UAVs simultaneous arrival with collision avoidance</i>                                                    |                                                  |
| Wei Lan                                                                                                                                       | Beihang Univ.                                                       | Hailong Yan                                                                                                                                                  | Northwestern Polytechnical Univ.                 |
| 08:30-12:00                                                                                                                                   | C12.15                                                              | Zhiwei Zhang                                                                                                                                                 | Aerospace Information Research Institute, CAS    |
| <b>945</b> <i>A method for determining RWS warning threshold curve by integrating aircraft performance and recovery strategies</i>            |                                                                     | Hongjun Chu                                                                                                                                                  | Hangzhou Dianzi Univ.                            |
| Jiayi Wang                                                                                                                                    | Northwestern Polytechnical Univ.                                    | Zhe Yu                                                                                                                                                       | Xidian Univ.                                     |
| Yaming Xing                                                                                                                                   | Northwestern Polytechnical Univ.                                    | 08:30-12:00                                                                                                                                                  | C12.21                                           |
| Guangwen Li                                                                                                                                   | Northwestern Polytechnical Univ.                                    | <b>727</b> <i>Three-dimensional prescribed performance guidance law with impact angle and field-of-view constraints</i>                                      |                                                  |
|                                                                                                                                               |                                                                     | Hongyu Wang                                                                                                                                                  | Beijing Information Science and Technology Univ. |
|                                                                                                                                               |                                                                     | Yi Ji                                                                                                                                                        | Beijing Information Science and Technology Univ. |
|                                                                                                                                               |                                                                     | Yuchen Wang                                                                                                                                                  | Beijing Institute of Technology                  |
|                                                                                                                                               |                                                                     | Sixing Zhang                                                                                                                                                 | Beijing Information Science and Technology Univ. |

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| Junfang Fan                                                                                                                                                     | Beijing Information Science and Technology Univ.                                                       | Yucheng Zhu                                                                                                                                     | Beihang Univ.                                   |
| 08:30-12:00                                                                                                                                                     | C12.22                                                                                                 | Junlin Luo                                                                                                                                      | Beihang Univ.                                   |
| <b>815</b> <i>Trajectory reconstruction of projectile based on fixed interval smoothing algorithm</i>                                                           |                                                                                                        | Tengfei                                                                                                                                         | Beihang Univ.                                   |
| Kai Chen                                                                                                                                                        | Northwestern Polytechnical Univ.                                                                       | Ang Li                                                                                                                                          | Beihang Univ.                                   |
| Yongchao Wang                                                                                                                                                   | Northwestern Polytechnical Univ.                                                                       | Shilei Zhang                                                                                                                                    | Beihang Univ.                                   |
| Pengli Wu                                                                                                                                                       | Northwestern Polytechnical Univ.                                                                       | Kaifei Li                                                                                                                                       | Beihang Univ.                                   |
| Sicheng Yang                                                                                                                                                    | Northwestern Polytechnical Univ.                                                                       | Xiaobin Xu                                                                                                                                      | Beihang Univ.                                   |
| Jinlong Song                                                                                                                                                    | Naval Univ. of Engineering                                                                             | 08:30-12:00                                                                                                                                     | C12.27                                          |
| Xiangping Li                                                                                                                                                    | Naval Univ. of Engineering                                                                             | <b>1645</b> <i>PSO-based adaptive covariance optimized Kalman filter for gyroscope bias fusion estimation and noise suppression</i>             |                                                 |
| Chengzhi Zeng                                                                                                                                                   | Northwestern Polytechnical Univ.                                                                       | Chenlu Li                                                                                                                                       | Xi'an Microelectronics Technology Institute     |
| 08:30-12:00                                                                                                                                                     | C12.23                                                                                                 | Hui Wang                                                                                                                                        | Xi'an Microelectronics Technology Institute     |
| <b>962</b> <i>TVGDO-MPC for quadrotor trajectory tracking under wind disturbances</i>                                                                           |                                                                                                        | Long Wang                                                                                                                                       | Xi'an Microelectronics Technology Institute     |
| Yifei Zhao                                                                                                                                                      | Beijing Institute of Technology                                                                        | Liyang Zhou                                                                                                                                     | Xi'an Microelectronics Technology Institute     |
| Yong Xu                                                                                                                                                         | Beijing Institute of Technology                                                                        | Hui Fang                                                                                                                                        | Xi'an Microelectronics Technology Institute     |
| Borui Sun                                                                                                                                                       | Beijing Institute of Technology                                                                        | 08:30-12:00                                                                                                                                     | C12.28                                          |
| Xuan Wen                                                                                                                                                        | Beijing Institute of Technology                                                                        | <b>173</b> <i>Research on error source analysis and precision enhancement methodology for spaceborne visual sensors in relative measurement</i> |                                                 |
| Xiong Chen                                                                                                                                                      | Beijing Institute of Technology                                                                        | Xingtian Liu                                                                                                                                    | Beijing Institute of Control Engineering        |
| Ying Liu                                                                                                                                                        | Zhongjike (Beijing) Vehicle Testing Engineering                                                        | Qihai Liu                                                                                                                                       | Beijing Institute of Control Engineering        |
| Yinghao Chen                                                                                                                                                    | Zhongjike (Beijing) Vehicle Testing Engineering                                                        | Jianmin Zhou                                                                                                                                    | Beijing Institute of Control Engineering        |
| Chengran Qi                                                                                                                                                     | Beijing Institute of Technology                                                                        | Jie Bao                                                                                                                                         | Beijing Institute of Control Engineering        |
| 08:30-12:00                                                                                                                                                     | C12.24                                                                                                 | Yunfei Xu                                                                                                                                       | Beijing Institute of Control Engineering        |
| <b>771</b> <i>Simulation analysis of light-pulse atom interferometers with continuous atomic beams: a framework for robust dynamic environment applications</i> |                                                                                                        | Tao Huang                                                                                                                                       | Beijing Institute of Control Engineering        |
| Nongchao Xin                                                                                                                                                    | Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing | 08:30-12:00                                                                                                                                     | C12.29                                          |
| Xiaodong Qu                                                                                                                                                     | Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing | <b>733</b> <i>Research on atmospheric parameter estimation method for re-entry phase based on dual-frequency EKF fusion</i>                     |                                                 |
| Shengjun Wang                                                                                                                                                   | Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing | Yu Wang                                                                                                                                         | Northwestern Polytechnical Univ.                |
| Yi Zhang                                                                                                                                                        | Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing | Xiaoye Bi                                                                                                                                       | Shenyang Aircraft Design and Research Institute |
| Zhiqiang Yao                                                                                                                                                    | Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing | Jun Liu                                                                                                                                         | Shenyang Aircraft Design and Research Institute |
| 08:30-12:00                                                                                                                                                     | C12.25                                                                                                 | Yueming Zhu                                                                                                                                     | Shenyang Aircraft Design and Research Institute |
| <b>880</b> <i>Method for reducing the start-up time of whole-angle mode hemispherical resonator gyroscope based on BP neural network</i>                        |                                                                                                        | Shangyin Ren                                                                                                                                    | Shenyang Aircraft Design and Research Institute |
| Sen Yang                                                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                                                 | 08:30-12:00                                                                                                                                     | C12.30                                          |
| Shengjie Ma                                                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute                                                 | <b>893</b> <i>Multi-parameter calibration for liquid circular angular accelerometer based on extended Kalman filter</i>                         |                                                 |
| Tongyang Chen                                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute                                                 | Zitian Xiong                                                                                                                                    | Beijing Institute of Technology                 |
| Hang Shu                                                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                                                 | Meiling Wang                                                                                                                                    | Beijing Institute of Technology                 |
| 08:30-12:00                                                                                                                                                     | C12.26                                                                                                 | Chaoyang Zhai                                                                                                                                   | Beijing Institute of Technology                 |
| <b>1217</b> 基于时域包络的半球谐振子振动参数辨识方法                                                                                                                                |                                                                                                        | Ziheng Xiao                                                                                                                                     | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Zixian Zu                                                                                                                                       | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Renjie Li                                                                                                                                       | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | 08:30-12:00                                                                                                                                     | C12.31                                          |
|                                                                                                                                                                 |                                                                                                        | <b>916</b> <i>Liquid circular angular accelerometer denoising based on dilated residual network fusing linear acceleration</i>                  |                                                 |
|                                                                                                                                                                 |                                                                                                        | Zhiheng Xiao                                                                                                                                    | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Meiling Wang                                                                                                                                    | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Chaoyang Zhai                                                                                                                                   | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Zitian Xiong                                                                                                                                    | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | Renjie Li                                                                                                                                       | Beijing Institute of Technology                 |
|                                                                                                                                                                 |                                                                                                        | 08:30-12:00                                                                                                                                     | C12.32                                          |
|                                                                                                                                                                 |                                                                                                        | <b>958</b> <i>Multi-sensor fusion for simultaneous localization and mapping of indoor robotic vacuum cleaners</i>                               |                                                 |

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|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Yushun Dong                                                                                                                                 | Xiamen Univ.                                 | <i>differential structured synchronous integral demodulator</i>                                                                    |                                                        |
| Boyu Chen                                                                                                                                   | Xiamen Univ.                                 | Pingtailei Lv                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
| Mingdi Niu                                                                                                                                  | Xiamen Univ.                                 | Jian Wang                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                                 | C12.33                                       | Wenhong Li                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>1069</b> <i>DEM-assisted calibration and registration of airborne mmWave radar and camera</i>                                            |                                              |                                                                                                                                    |                                                        |
| Shaojie Lv                                                                                                                                  | Chinese People's Liberation Army             | Yuzhe Zhang                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Yijie Huang                                                                                                                                 | Shanghai Jiao Tong Univ.                     | Jiawei Song                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Xianhao Huang                                                                                                                               | Shanghai Jiao Tong Univ.                     |                                                                                                                                    |                                                        |
| Junguo Lu                                                                                                                                   | Shanghai Jiao Tong Univ.                     |                                                                                                                                    |                                                        |
| Qinghao Zhang                                                                                                                               | Shanghai Jiao Tong Univ.                     |                                                                                                                                    |                                                        |
| 08:30-12:00                                                                                                                                 | C12.34                                       | 08:30-12:00                                                                                                                        | C12.39                                                 |
| <b>1099</b> <i>A survey on multi-source heterogeneous data fusion methods for target detection</i>                                          |                                              | <b>1105</b> <i>Unified linearized evaluation of sigma-delta digital closed-loop architectures for robust MEMS gyroscope design</i> |                                                        |
| Xiaoming Guo                                                                                                                                | National Key Laboratory of Nearspace Physics | Yuzhe Zhang                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Wenxia Huo                                                                                                                                  | National Key Laboratory of Nearspace Physics | Jian Wang                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute |
| Lin Chen                                                                                                                                    | National Key Laboratory of Nearspace Physics | Wenhong Li                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| Shouyuan Qian                                                                                                                               | National Key Laboratory of Nearspace Physics | Pingtailei Lv                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                                 | C12.35                                       | Jiawei Song                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>1263</b> <i>High-fidelity orbital reconstruction: a physics-grounded simulation and two-phase progressive strategy for space objects</i> |                                              | 08:30-12:00                                                                                                                        | C12.40                                                 |
| Jiaqing Chen                                                                                                                                | Innovation Academy for Microsatellites, CAS  | <b>1165</b> <i>A chip-scale thermal control and bias compensation method for butterfly MEMS gyroscopes</i>                         |                                                        |
| Xinyun Chen                                                                                                                                 | Innovation Academy for Microsatellites, CAS  | Hongfu Sun                                                                                                                         | National Univ. of Defense Technology                   |
| Tianshu Wang                                                                                                                                | Tianjin Univ.                                | Yang Zhang                                                                                                                         | National Univ. of Defense Technology                   |
| Yonghe Zhang                                                                                                                                | Innovation Academy for Microsatellites, CAS  | Yunlong Kong                                                                                                                       | National Univ. of Defense Technology                   |
| Linzheng Tang                                                                                                                               | Innovation Academy for Microsatellites, CAS  | Shuiyang Liang                                                                                                                     | National Univ. of Defense Technology                   |
| Zibing Qin                                                                                                                                  | Aether Space (Shanghai) Technology Co., Ltd  | Longkang Chang                                                                                                                     | National Univ. of Defense Technology                   |
| Chengyu Ma                                                                                                                                  | Innovation Academy for Microsatellites, CAS  | Qingsong Li                                                                                                                        | National Univ. of Defense Technology                   |
| 08:30-12:00                                                                                                                                 | C12.36                                       | Wenqi Wu                                                                                                                           | National Univ. of Defense Technology                   |
| <b>1621</b> <i>Aligning and fusing SAR and optical images with correlation volume for land cover classification</i>                         |                                              | Zhanqiang Hou                                                                                                                      | National Univ. of Defense Technology                   |
| Changlin Liu                                                                                                                                | South China Univ. of Technology              | Tongqiao Miao                                                                                                                      | National Univ. of Defense Technology                   |
| Xinglun Zhou                                                                                                                                | South China Univ. of Technology              | 08:30-12:00                                                                                                                        | C12.41                                                 |
| Yubo Wang                                                                                                                                   | South China Univ. of Technology              | <b>1313</b> <i>Research on a silicon-based novel flexible pendulum angular acceleration sensor</i>                                 |                                                        |
| Zijie Li                                                                                                                                    | South China Univ. of Technology              | Bin Sun                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| Wei Fu                                                                                                                                      | South China Univ. of Technology              | Pu Chen                                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| Fuchun Liu                                                                                                                                  | South China Univ. of Technology              | Xiwen Zhang                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                                 | C12.37                                       | Xinhu Wang                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>127</b> <i>基于正交控制力的半球谐振陀螺相位误差在线辨识与补偿研究</i>                                                                                               |                                              | Xuetao Guo                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| Pengfu Lu                                                                                                                                   | Beihang Univ.                                | 08:30-12:00                                                                                                                        | C12.42                                                 |
| Shilei Zhang                                                                                                                                | Beihang Univ.                                | <b>113</b> <i>Dynamic simulation analysis of the cabin door opening mechanism based on LMS motion</i>                              |                                                        |
| Xiaobin Xu                                                                                                                                  | Beihang Univ.                                | Weijuan Zheng                                                                                                                      | Qing'An Group Co., Ltd.                                |
| Ang Li                                                                                                                                      | Beihang Univ.                                | Hongjun Pang                                                                                                                       | Qing'An Group Co., Ltd.                                |
| Junlin Luo                                                                                                                                  | Beihang Univ.                                | 08:30-12:00                                                                                                                        | C12.43                                                 |
| 08:30-12:00                                                                                                                                 | C12.38                                       | <b>121</b> <i>导航软件桌面仿真运行环境设计与实现</i>                                                                                                |                                                        |
| <b>980</b> <i>Low noise MEMS gyroscope detection circuit based on</i>                                                                       |                                              |                                                                                                                                    |                                                        |

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| Congchao Wang                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                 | <b>661</b> <i>Design and static strength analysis of civil fire-fighting aircraft water tank support structure</i> | Yukang Ren                                                                                                           | Shanghai Aircraft Design and Research Institute        |
| Qingchun Yang                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                 |                                                                                                                    | Qi Chen                                                                                                              | Shanghai Aircraft Design and Research Institute        |
| Mengfei Qiao                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute                 |                                                                                                                    | Pengfei Zhang                                                                                                        | Shanghai Aircraft Design and Research Institute        |
| Shenjian Qu                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute                 |                                                                                                                    | Zhengyi Zhu                                                                                                          | Shanghai Aircraft Design and Research Institute        |
| Longhui Yao                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute                 |                                                                                                                    |                                                                                                                      |                                                        |
| Shaolong Song                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                 |                                                                                                                    |                                                                                                                      |                                                        |
| 08:30-12:00                                                                                                                          | C12.44                                                                 |                                                                                                                    | 08:30-12:00                                                                                                          | C12.49                                                 |
| <b>176</b> <i>Research on aerodynamic and structural design technology of ducted fan for ducted eVTOL</i>                            |                                                                        |                                                                                                                    | <b>697</b> <i>Terminal navigation parameter inversion based on meta-learning physics-informed neural networks</i>    |                                                        |
| Zengyong An                                                                                                                          | Qing'An Group Co., Ltd.                                                |                                                                                                                    | Zijian Cui                                                                                                           | Beijing Institute of Astronautical Systems Engineering |
| Hui Wang                                                                                                                             | Qing'An Group Co., Ltd.                                                |                                                                                                                    | Jun Zhang                                                                                                            | Beijing Institute of Astronautical Systems Engineering |
| Yuan Sun                                                                                                                             | Qing'An Group Co., Ltd.                                                |                                                                                                                    | Rubin Luo                                                                                                            | Beijing Institute of Astronautical Systems Engineering |
| 08:30-12:00                                                                                                                          | C12.45                                                                 |                                                                                                                    | 08:30-12:00                                                                                                          | C12.50                                                 |
| <b>443</b> <i>飞管系统余度管理自动测试平台设计</i>                                                                                                   |                                                                        |                                                                                                                    | <b>868</b> <i>An enhanced architecture trade-off analysis method for embedded systems: integrating AADL and MCDM</i> |                                                        |
| Zhiqiang Ai                                                                                                                          | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Zelin Li                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute |
| Xiaoye Bi                                                                                                                            | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Yazhou Yue                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute |
| Yang Wang                                                                                                                            | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Dantao Zhang                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| Hongbo Zhu                                                                                                                           | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Tao Wang                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute |
| Yue Hu                                                                                                                               | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Hongming Liu                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| Lingwei Kong                                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute                   |                                                                                                                    | Zhiyong Tan                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                          | C12.46                                                                 |                                                                                                                    | Qiqi Xue                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>525</b> <i>Design of an open-source graphical simulation platform based on MBD and its application in INDI control law design</i> |                                                                        |                                                                                                                    | Yingnan Tong                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| Dezhang Zhou                                                                                                                         | Southwest Univ. of Science and Technology                              |                                                                                                                    | Weitong Li                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute |
| Hai Chen                                                                                                                             | China Aerodynamics Research and Development Center                     |                                                                                                                    | 08:30-12:00                                                                                                          | C12.51                                                 |
| Tao Liu                                                                                                                              | Southwest Univ. of Science and Technology                              |                                                                                                                    | <b>982</b> <i>Research on low-stress packaging of MEMS disk resonant gyroscope</i>                                   |                                                        |
| Yinan Kong                                                                                                                           | China Aerodynamics Research and Development Center                     |                                                                                                                    | Jiawei Song                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute |
| Tun Zhao                                                                                                                             | China Aerodynamics Research and Development Center                     |                                                                                                                    | Jian Wang                                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                          | C12.47                                                                 |                                                                                                                    | Yuzhe Zhang                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute |
| <b>564</b> <i>Dynamic simulation study of radio navigation based on MATLAB/Simulink App Designer</i>                                 |                                                                        |                                                                                                                    | Wenhong Li                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute |
| Wenchao Liu                                                                                                                          | The First Aircraft Institute of Aviation Industry Corporation of China |                                                                                                                    | Pingtailei Lv                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Zhishan Yang                                                                                                                         | The First Aircraft Institute of Aviation Industry Corporation of China |                                                                                                                    | 08:30-12:00                                                                                                          | C12.52                                                 |
| Xu Zhang                                                                                                                             | The First Aircraft Institute of Aviation Industry Corporation of China |                                                                                                                    | <b>1045</b> <i>An automated method for test script generation in flight control redundancy management</i>            |                                                        |
| Wenjing Hei                                                                                                                          | The First Aircraft Institute of Aviation Industry Corporation of China |                                                                                                                    |                                                                                                                      |                                                        |
| 08:30-12:00                                                                                                                          | C12.48                                                                 |                                                                                                                    |                                                                                                                      |                                                        |

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| Gang Yang                                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute           | Yue Wang                                                                                                      | AVIC Shenyang Aircraft Design and Research Institute             |
| Jia Tian                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute           | 08:30-12:00                                                                                                   | C12.57                                                           |
| Lin Yang                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute           | <b>1437</b> <i>Research on trajectory planning for spray painting robotic arm based on MATLAB-CoppeliaSim</i> | Wendian Zhang Changchun Technical Univ.                          |
| Shaolong Song                                                                                                                              | AVIC Xi'an Flight Automatic Control Research Institute           | 08:30-12:00                                                                                                   | C12.58                                                           |
| 08:30-12:00                                                                                                                                | C12.53                                                           | <b>1623</b> <i>Study on civil helicopter unusable fuel supply airworthiness certification method</i>          | Hui Zhao China Helicopter Research and Development Institute     |
| <b>1056</b> <i>Research on automated modeling and simulation verification of flight control logic based on large language model agents</i> | Zhaoxu Yang AVIC Chengdu Aircraft Design and Research Institute  | Ziyue Qu China Helicopter Research and Development Institute                                                  | Yueping Hou China helicopter reach and design institution        |
| Yinchao Chen                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute              | Donglin Wang Guangzhou Aircraft Certification Center, Civil Aviation Administration of China                  | 08:30-12:00 C12.59                                               |
| Tao Wang                                                                                                                                   | AVIC Chengdu Aircraft Design and Research Institute              | <b>1625</b> <i>Design of fixed-point navigation system for hospital ward meal delivery cart based on ROS</i>  | Xiaojian Zhao Jingchu Univ. of Technology                        |
| Hongyu Yan                                                                                                                                 | AVIC Chengdu Aircraft Design and Research Institute              | Kejun Zhang Jingchu Univ. of Technology                                                                       | Xue Chen Jingchu Univ. of Technology                             |
| Kai Wang                                                                                                                                   | AVIC Chengdu Aircraft Design and Research Institute              | Jing Luo Jingchu Univ. of Technology                                                                          | Jingyi Huang Jingchu Univ. of Technology                         |
| 08:30-12:00                                                                                                                                | C12.54                                                           | 08:30-12:00                                                                                                   | C12.60                                                           |
| <b>1082</b> <i>Simulink modeling of electromechanical servo mechanism system for a flight vehicle</i>                                      | Yiran Ding Beijing Aerospace Automatic Control Institute         | <b>1639</b> <i>Design and simulation of ROS-based hospital patrol robot system</i>                            | Wenqiang Wu Jingchu Univ. of Technology                          |
| Wenbo Fan                                                                                                                                  | Beijing Aerospace Automatic Control Institute                    | Kejun Zhang Jingchu Univ. of Technology                                                                       | Xue Chen Jingchu Univ. of Technology                             |
| Yao Zhao                                                                                                                                   | State Key Laboratory of Aerospace Intelligent Control Technology | Wenhua Gou Jingchu Univ. of Technology                                                                        | Jing Luo Jingchu Univ. of Technology                             |
| Fei Luo                                                                                                                                    | Beijing Aerospace Automatic Control Institute                    | 08:30-12:00                                                                                                   | C12.61                                                           |
| Xinmin Zhang                                                                                                                               | Beijing Aerospace Automatic Control Institute                    | <b>135</b> <i>Safety analysis of typical aircraft trim function based on dynamic fault tree</i>               | Lu Sun Shenyang Aircraft Corporation                             |
| 08:30-12:00                                                                                                                                | C12.55                                                           | Wenzhe Li AVIC Shenyang Aircraft Design and Research Institute                                                | Fangliu Jin AVIC Shenyang Aircraft Design and Research Institute |
| <b>1123</b> <i>VTOL 复合翼与常规布局机翼气动弹性对比</i>                                                                                                   | Zhao Yang AVIC Xi'an Flight Automatic Control Research Institute | Zhaohui Lin Shenyang Aircraft Corporation                                                                     | 08:30-12:00 C12.62                                               |
| Bojia Zeng                                                                                                                                 | Shenyang Aerospace Univ.                                         | <b>208</b> <i>Remaining useful life prediction based on autoencoder and maximum mean discrepancy</i>          | Yufeng Qin Naval Aviation Univ.                                  |
| Gang Cheng                                                                                                                                 | Shanghai Maritime Univ.                                          | Yong Song Shandong Univ.                                                                                      | Qi Wang Naval Aviation Univ.                                     |
| Guoqiang Yang                                                                                                                              | AVIC Xi'an Flight Automatic Control Research Institute           | Chengcheng Han Naval Aviation Univ.                                                                           | Jinhe Yu Naval Aviation Univ.                                    |
| Dongliang Song                                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute           | Dong Yue Naval Aviation Univ.                                                                                 | 08:30-12:00 C12.63                                               |
| Mingming Tian                                                                                                                              | AVIC Xi'an Flight Automatic Control Research Institute           | <b>356</b> <i>PIAL: Physics-informed adaptive LSTM for few-shot battery SOH prediction in UAVs</i>            | Jingyan Zhao Northwestern Polytechnical Univ.                    |
| Yiming Du                                                                                                                                  | Shenyang Aerospace Univ.                                         | Hongwu Xu Aerospace Standardization                                                                           |                                                                  |
| 08:30-12:00                                                                                                                                | C12.56                                                           |                                                                                                               |                                                                  |
| <b>1432</b> <i>基于高精度同步的飞控软件虚拟仿真验证技术</i>                                                                                                    | Yongyi Liu AVIC Shenyang Aircraft Design and Research Institute  |                                                                                                               |                                                                  |
| Chong Zhen                                                                                                                                 | AVIC Shenyang Aircraft Design and Research Institute             |                                                                                                               |                                                                  |
| Hongrun Yin                                                                                                                                | AVIC Shenyang Aircraft Design and Research Institute             |                                                                                                               |                                                                  |

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|                                                                                                                                     | Research Institute                                                                | Linyi Zhi                                                                                                                                       | Aircraft Strength Research Institute                   |
| Xiaoxiang Hu                                                                                                                        | Northwestern Polytechnical Univ.                                                  |                                                                                                                                                 | of China                                               |
| Yuewen Wang                                                                                                                         | Northwestern Polytechnical Univ.                                                  | Zhuang Xie                                                                                                                                      | AVIC Xi'an Flight Automatic                            |
| Chen Yang                                                                                                                           | Northwestern Polytechnical Univ.                                                  |                                                                                                                                                 | Control Research Institute                             |
| 08:30-12:00                                                                                                                         | C12.64                                                                            | 08:30-12:00                                                                                                                                     | C12.70                                                 |
| <b>583</b> <i>General quality characteristics co-simulation based on logical and physical model mapping</i>                         |                                                                                   | <b>1636</b> <i>Analysis of deep learning-based DDoS defense strategies for UAV networks</i>                                                     |                                                        |
| Lina Qiao                                                                                                                           | China Electronic Product Reliability and Environmental Testing Research Institute | Zhiqiang Liu                                                                                                                                    | Guilin Univ. Of Aerospace Technology                   |
| Fan Zhang                                                                                                                           | China Electronic Product Reliability and Environmental Testing Research Institute | Lijun Xu                                                                                                                                        | Guilin Univ. of Aerospace Technology                   |
| Duoja Huang                                                                                                                         | China Electronic Product Reliability and Environmental Testing Research Institute | Zeyu Tang                                                                                                                                       | Guilin Univ. of Aerospace Technology                   |
| 08:30-12:00                                                                                                                         | C12.65                                                                            | 08:30-12:00                                                                                                                                     | C12.71                                                 |
| <b>801</b> <i>水平安定面作动系统的安全控制架构研究</i>                                                                                                |                                                                                   | <b>1705</b> <i>Design of a real-time monitoring system for FL51 wind tunnel VFD based on virtual instruments</i>                                |                                                        |
| Zhenxin Yan                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute                            | Yutong Sun                                                                                                                                      | AVIC Aerodynamics Research Institute                   |
| Le Song                                                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute                            | Yuanshou Li                                                                                                                                     | AVIC Aerodynamics Research Institute                   |
| Kunxiao Tian                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                            | Songchen Han                                                                                                                                    | AVIC Aerodynamics Research Institute                   |
| Siyuan Cai                                                                                                                          | AVIC Xi'an Flight Automatic Control Research Institute                            | Dan Jia                                                                                                                                         | AVIC Aerodynamics Research Institute                   |
| Linguan Jiao                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                            | 08:30-12:00                                                                                                                                     | C12.72                                                 |
| 08:30-12:00                                                                                                                         | C12.66                                                                            | <b>1316</b> <i>Research on airworthiness compliance flight test verification methods for minimum control speed in the air of civil aircraft</i> |                                                        |
| <b>867</b> <i>Research on automatic grouping and configuration technology of flight parameter based on ARINC 767 standard</i>       |                                                                                   | Haijun Ma                                                                                                                                       | Civil Aircraft Flight Test Center                      |
| Zhu Li                                                                                                                              | Hangzhou Dianzi Univ.                                                             | 08:30-12:00                                                                                                                                     | C12.73                                                 |
| Jingyu Zhang                                                                                                                        | Hangzhou Dianzi Univ.                                                             | <b>1370</b> <i>Research on verification method of airworthiness compliance of lightning protection clause for civil aircraft</i>                |                                                        |
| Shuangyun Ma                                                                                                                        | Hangzhou Dianzi Univ.                                                             | Yan Liu                                                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00                                                                                                                         | C12.67                                                                            | Chao Zhang                                                                                                                                      | AVIC Aerospace Systems Co.,Ltd.                        |
| <b>1098</b> <i>QCCS: A scoring method for evaluating quantum code comments</i>                                                      |                                                                                   | Li Li                                                                                                                                           | AVIC Xi'an Flight Automatic Control Research Institute |
| Jinlong Wen                                                                                                                         | Beihang Univ.                                                                     | 08:30-12:00                                                                                                                                     | C12.74                                                 |
| Xiaohan Yu                                                                                                                          | Beihang Univ.                                                                     | <b>1735</b> <i>Safety assessment of eVTOL power systems under different tilt mechanism configurations</i>                                       |                                                        |
| Beibei Yin                                                                                                                          | Beihang Univ.                                                                     | Jianzhong Yang                                                                                                                                  | Civil Aviation Univ. of China                          |
| 08:30-12:00                                                                                                                         | C12.68                                                                            | Baosong Ji                                                                                                                                      | Civil Aviation Univ. of China                          |
| <b>1430</b> <i>SAST+SCA 融合漏洞监测技术在飞控领域的应用</i>                                                                                        |                                                                                   | Xiaozhe Sun                                                                                                                                     | Civil Aviation Univ. of China                          |
| Qi Zhang                                                                                                                            | AVIC Shenyang Aircraft Design and Research Institute                              | 08:30-12:00                                                                                                                                     | C12.75                                                 |
| Dapeng Zhou                                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute                              | <b>1752</b> <i>Construction and evaluation of a college students' mental health teaching model based on connectivism</i>                        |                                                        |
| Shuangfei Fu                                                                                                                        | AVIC Shenyang Aircraft Design and Research Institute                              | Shuailing Zhu                                                                                                                                   | Guilin Univ. of Aerospace Technology                   |
| Ting Wang                                                                                                                           | AVIC Shenyang Aircraft Design and Research Institute                              | Wei Liu                                                                                                                                         | Guilin Univ. of Aerospace Technology                   |
| 08:30-12:00                                                                                                                         | C12.69                                                                            | 08:30-12:00                                                                                                                                     | C12.76                                                 |
| <b>1597</b> <i>Testability modeling method for civil aircraft fly-by-wire flight control systems oriented to airline operations</i> |                                                                                   | <b>323</b> <i>Case-based learning in intelligent control theory curriculum: an integrated design case for aerial combat decision-making</i>     |                                                        |
| Renqing Zhai                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute                            | Lingyu Yang                                                                                                                                     | Beihang Univ.                                          |
| Mingzhuang Zhang                                                                                                                    | AVIC Xi'an Flight Automatic Control Research Institute                            | Jie Yuan                                                                                                                                        | Beihang Univ.                                          |
|                                                                                                                                     |                                                                                   | Jing Zhang                                                                                                                                      | Beihang Univ.                                          |
|                                                                                                                                     |                                                                                   | Weiqi Li                                                                                                                                        | Beihang Univ.                                          |
|                                                                                                                                     |                                                                                   | 08:30-12:00                                                                                                                                     | C12.77                                                 |
|                                                                                                                                     |                                                                                   | <b>547</b> <i>An experimental method for flight quality improvement integrating curriculum-based ideological and political education</i>        |                                                        |
|                                                                                                                                     |                                                                                   | Xiaoguang Wang                                                                                                                                  | Air Force Engineering Univ.                            |
|                                                                                                                                     |                                                                                   | Xiaoping Wang                                                                                                                                   | Air Force Engineering Univ.                            |
|                                                                                                                                     |                                                                                   | Hongbo Li                                                                                                                                       | Air Force Engineering Univ.                            |
|                                                                                                                                     |                                                                                   | 08:30-12:00                                                                                                                                     | C12.78                                                 |
|                                                                                                                                     |                                                                                   | <b>1427</b> <i>From "basic verification" to "intelligent computing integration": practical computer teaching paradigm</i>                       |                                                        |

*reconstruction in local applied universities*

|                                                                                                                                                                                            |                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Hua Yang                                                                                                                                                                                   | Guilin Univ. of Aerospace Technology             |
| Shiwei Wei                                                                                                                                                                                 | Guilin Univ. of Aerospace Technology             |
| Jing Huang                                                                                                                                                                                 | Guilin Univ. of Aerospace Technology             |
| Wei Liu                                                                                                                                                                                    | Guilin Univ. of Aerospace Technology             |
| 08:30-12:00                                                                                                                                                                                | C12.79                                           |
| <b>1439</b> <i>Research on the reform of human resource management talent training in the context of artificial intelligence</i>                                                           |                                                  |
| Binghui Luo                                                                                                                                                                                | Guilin Univ. of Aerospace Technology             |
| 08:30-12:00                                                                                                                                                                                | C12.80                                           |
| <b>1452</b> <i>Reconstructing hadoop teaching in the iterative process of big data technology</i>                                                                                          |                                                  |
| Ping Sun                                                                                                                                                                                   | Guilin Normal Univ.                              |
| Yong Zhang                                                                                                                                                                                 | Guilin Univ. of Aerospace Technology             |
| 08:30-12:00                                                                                                                                                                                | C12.81                                           |
| <b>1454</b> <i>Is the construction of demonstrative industry colleges conducive to enhancing students' employability? A case study of the jd intelligent supply chain industry college</i> |                                                  |
| Bian Tang                                                                                                                                                                                  | Guilin Univ. of Aerospace Technology             |
| Pengfei Guo                                                                                                                                                                                | Chongqing Technology and Business Univ.          |
| Yuelan Shi                                                                                                                                                                                 | Guangxi Normal Univ.                             |
| 08:30-12:00                                                                                                                                                                                | C12.82                                           |
| <b>1608</b> <i>Educational innovation practice of "hang v" intelligent team based on unmanned vehicles</i>                                                                                 |                                                  |
| Xinhong Yang                                                                                                                                                                               | Guilin Univ. of Aerospace Technology             |
| Shudao Wang                                                                                                                                                                                | Guilin Univ. of Aerospace Technology             |
| Beini Wang                                                                                                                                                                                 | EMC Information Technology R&D(Beijing)Co., Ltd. |
| Tingpeng Li                                                                                                                                                                                | Guilin Univ. of Aerospace Technology             |
| Lingling Guan                                                                                                                                                                              | Guilin Univ. of Aerospace Technology             |
| Jiliang Yi                                                                                                                                                                                 | Guilin Univ. of Aerospace Technology             |
| 08:30-12:00                                                                                                                                                                                | C12.83                                           |
| <b>1655</b> <i>"AI+工业"赋能交通运输（民航机务工程）专业的智能信息处理课程体系重构与实践</i>                                                                                                                                 |                                                  |
| Kun Wu                                                                                                                                                                                     | Beihang Univ.                                    |
| Jiao Jia                                                                                                                                                                                   | Beihang Univ.                                    |
| Huaxin Qiu                                                                                                                                                                                 | Beihang Univ.                                    |
| Wei Lan                                                                                                                                                                                    | Beihang Univ.                                    |
| 08:30-12:00                                                                                                                                                                                | C12.84                                           |
| <b>1692</b> <i>Exploration of typical application cases in matrix theory and its applications: reinforcement learning-based cooperative control of multi-agent systems</i>                 |                                                  |
| Haibo Gu                                                                                                                                                                                   | Beihang Univ.                                    |
| Qingkang Meng                                                                                                                                                                              | Beihang Univ.                                    |
| 08:30-12:00                                                                                                                                                                                | C12.85                                           |
| <b>454</b> <i>Distributed collaborative LIDAR SLAM based on BTC descriptors</i>                                                                                                            |                                                  |
| Yuxing Shi                                                                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics    |
| Jiong Li                                                                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics    |
| Pin Lyu                                                                                                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics    |
| Jizhou Lai                                                                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics    |
| Diyi Xiao                                                                                                                                                                                  | Nanjing Univ. of Aeronautics and Astronautics    |

|                                                                                                                                                     |                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
|                                                                                                                                                     | Astronautics                                      |
| Yuxuan Chen                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     |
| 08:30-12:00                                                                                                                                         | C12.86                                            |
| <b>676</b> <i>Topological skeleton-guided viewpoint generation and utility evaluation for autonomous exploration in unknown indoor environments</i> |                                                   |
| Yicong Chen                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     |
| Ziyu Zheng                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| Jie Chen                                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics     |
| Pin Lyu                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics     |
| Jizhou Lai                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| Cheng Yuan                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| 08:30-12:00                                                                                                                                         | C12.87                                            |
| <b>693</b> <i>Hierarchical autonomous exploration via global sequence planning and local distance-field-constrained path optimization</i>           |                                                   |
| Wenxuan Zeng                                                                                                                                        | AVIC First Aircraft Design and Research Institute |
| Ziyu Zheng                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| Yicong Chen                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     |
| Jizhou Lai                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| Pin Lyu                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics     |
| Cheng Yuan                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics     |
| 08:30-12:00                                                                                                                                         | C12.88                                            |
| <b>1138</b> <i>A lightweight method for constructing structural semantic maps based on multi-sensor fusion in indoor environments</i>               |                                                   |
| Ruien Mao                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics     |
| Jiaxuan Wang                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics     |
| Wenxuan Zeng                                                                                                                                        | Avionics System Design Institute                  |
| Jiazhou Lai                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics     |
| Pin Lyu                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics     |
| 08:30-12:00                                                                                                                                         | C12.89                                            |
| <b>248</b> <i>Scenario-driven design of next-generation air traffic management systems</i>                                                          |                                                   |
| Mengjin Qu                                                                                                                                          | Tsinghua Univ.                                    |
| Shihong Li                                                                                                                                          | Tsinghua Univ.                                    |
| Pengpeng Guo                                                                                                                                        | Tsinghua Univ.                                    |
| Ziang Wang                                                                                                                                          | Tsinghua Univ.                                    |
| Qing Li                                                                                                                                             | Tsinghua Univ.                                    |
| 08:30-12:00                                                                                                                                         | C12.90                                            |
| <b>639</b> <i>Application of a controller design method based on the integration of structure search and parameter optimization to a</i>            |                                                   |

*launch vehicle attitude control system*

|               |                   |
|---------------|-------------------|
| Kan Yang      | 92942 Unit of PLA |
| Ming Xiao     | 92942 Unit of PLA |
| Shuailei Wang | 92942 Unit of PLA |
| Yajie Du      | 92942 Unit of PLA |
| Qing Li       | Tsinghua Univ.    |
| 08:30-12:00   | C12.91            |

**654** *Robust control for helicopters under tail rotor stuck faults using NDO-INDI and RIFTC*

|                |                                               |
|----------------|-----------------------------------------------|
| Liyan Feng     | Nanjing Univ. of Aeronautics and Astronautics |
| Panpan Xiong   | Nanjing Univ. of Aeronautics and Astronautics |
| Shouzhao Sheng | Nanjing Univ. of Aeronautics and Astronautics |
| 08:30-12:00    | C12.92                                        |

**659** *Intelligent decision-making and control for helicopter autorotation flare landing based on SAC and INDI*

|                |                                               |
|----------------|-----------------------------------------------|
| Dongyang Fan   | Nanjing Univ. of Aeronautics and Astronautics |
| Yanfeng Liu    | Nanjing Univ. of Aeronautics and Astronautics |
| Panpan Xiong   | Nanjing Univ. of Aeronautics and Astronautics |
| Shouzhao Sheng | Nanjing Univ. of Aeronautics and Astronautics |
| 08:30-12:00    | C12.93                                        |

**753** *A causal-aware safety control framework for human-machine systems based on CPSS*

|              |                |
|--------------|----------------|
| Shihong Li   | Tsinghua Univ. |
| Yu Jin       | Tsinghua Univ. |
| Mengjin Qu   | Tsinghua Univ. |
| Pengpeng Guo | Tsinghua Univ. |
| Qing Li      | Tsinghua Univ. |
| 08:30-12:00  | C12.94         |

**888** *Application of large language models in UAV swarm command and control tasks*

|             |                                                        |
|-------------|--------------------------------------------------------|
| Liang Yu    | AVIC Xi'an Flight Automatic Control Research Institute |
| Xinzhe Lei  | AVIC Xi'an Flight Automatic Control Research Institute |
| 08:30-12:00 | C12.95                                                 |

**804** *A stochastic optimization approach to heterogeneous satellite scheduling under cloud uncertainty*

|             |               |
|-------------|---------------|
| Jian Kuang  | Sichuan Univ. |
| Bin Li      | Sichuan Univ. |
| 08:30-12:00 | C12.96        |

**854** *DMPC for UAV formation with adaptive connectivity maintenance*

|             |                                                      |
|-------------|------------------------------------------------------|
| Ming Yang   | Sichuan Univ.                                        |
| Qi Zhang    | AVIC Shenyang Aircraft Design and Research Institute |
| Bin Li      | Sichuan Univ.                                        |
| 08:30-12:00 | C12.97                                               |

**1021** *Distributed multi-agent PPO for joint trajectory and resource allocation in networked radar environments*

|              |               |
|--------------|---------------|
| Wenhao Zhang | Sichuan Univ. |
|--------------|---------------|

|             |               |
|-------------|---------------|
| Bin Li      | Sichuan Univ. |
| 08:30-12:00 | C12.98        |

**1132** *Multi-constraint obstacle avoidance formation control for fixed-wing UAVs with active disturbance rejection*

|             |                                 |
|-------------|---------------------------------|
| Yuteng Lin  | Beijing Institute of Technology |
| Junhui Liu  | Beijing Institute of Technology |
| Yankai Wang | Beijing Institute of Technology |
| Jiaqi Jiang | Beijing Institute of Technology |
| Xiuyun Meng | Beijing Institute of Technology |
| 08:30-12:00 | C12.99                          |

**1572** *Adaptive ESKF-based visual-inertial relative pose estimation of a UAV-borne structured target*

|             |                                                |
|-------------|------------------------------------------------|
| Ruibin Pi   | National Space Science Center, CAS             |
| Peng Han    | National Space Science Center, CAS             |
| Ziyang Xu   | National Space Science Center, CAS             |
| Qiang Yu    | National Space Science Center, CAS             |
| Yangang Yin | Guilin Feiyu Technology Incorporated Co., Ltd. |
| 08:30-12:00 | C12.100                                        |

**1607** *World-model reinforcement learning for impact-angle-constrained integrated guidance and control*

|              |                                 |
|--------------|---------------------------------|
| Yuze Guo     | Beijing Institute of Technology |
| Junhui Liu   | Beijing Institute of Technology |
| Chunyu Li    | Beijing Institute of Technology |
| Jianan Wang  | Beijing Institute of Technology |
| Jiayuan Shan | Beijing Institute of Technology |
| 08:30-12:00  | C12.101                         |

**1667** *DriftDiTDehaze: drifting model-based dehazing network for aerial visual place recognition*

|              |                                 |
|--------------|---------------------------------|
| Mengyu Zhang | Beijing Institute of Technology |
| Jianan Wang  | Beijing Institute of Technology |
| Jiaqi Jiang  | Beijing Institute of Technology |
| Chunyu Li    | Beijing Institute of Technology |
| Jiayuan Shan | Beijing Institute of Technology |
| 08:30-12:00  | C12.102                         |

**282** *A multi-strategy improved crayfish optimization algorithm for unmanned aerial vehicle path planning*

|              |                           |
|--------------|---------------------------|
| Wanying Ruan | Shijiazhuang Tiedao Univ. |
| Yarong Wang  | Shijiazhuang Tiedao Univ. |
| Yichao Chen  | Shijiazhuang Tiedao Univ. |
| Bin Wang     | Shijiazhuang Tiedao Univ. |
| 08:30-12:00  | C12.103                   |

**398** *ROI-ATTNet ++ : drivable area detection of mine fused with ROI extraction and attention mechanism*

|             |                           |
|-------------|---------------------------|
| Deli Yan    | Shijiazhuang Tiedao Univ. |
| Dongwei Li  | Shijiazhuang Tiedao Univ. |
| Jiakai Yang | Shijiazhuang Tiedao Univ. |
| Wencan Liu  | Shijiazhuang Tiedao Univ. |
| 08:30-12:00 | C12.104                   |

**621** *Adaptive search and interception strategy for attack-defense games under asymmetric visibility occlusion*

|              |               |
|--------------|---------------|
| Yihao Chen   | Sichuan Univ. |
| Songyi Dian  | Sichuan Univ. |
| Bin Guo      | Sichuan Univ. |
| Hongwei Fang | Sichuan Univ. |
| 08:30-12:00  | C12.105       |

**258** *Main satellite attitude dynamics of space tether formation*

|                                                                                                                                                |                                                              |  |                                                                                                                                                  |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <i>considering deployment mechanism coupling</i>                                                                                               |                                                              |  | Yingquan Nie                                                                                                                                     | Xiangtan Univ.                                      |
| Ying Zhang                                                                                                                                     | Northwestern Polytechnical Univ.                             |  | Zurong Wu                                                                                                                                        | Xiangtan Univ.                                      |
| Changqing Wang                                                                                                                                 | Northwestern Polytechnical Univ.                             |  | Wenrui Shi                                                                                                                                       | Xiangtan Univ.                                      |
| Hongshi Lu                                                                                                                                     | Northwestern Polytechnical Univ.                             |  |                                                                                                                                                  |                                                     |
| Aijun Li                                                                                                                                       | Northwestern Polytechnical Univ.                             |  | 08:30-12:00                                                                                                                                      | C12.112                                             |
| 08:30-12:00                                                                                                                                    | C12.106                                                      |  | <b>1302</b> <i>Tip clearance protection for coaxial compound helicopters based on peak response estimation</i>                                   |                                                     |
| <b>610</b> <i>Improved RTMpose-based keypoint detection and 3d mapping for space non-cooperative targets</i>                                   |                                                              |  | Sijie Dai                                                                                                                                        | Northwestern Polytechnical Univ.                    |
| Chaoshuo Liu                                                                                                                                   | Northwestern Polytechnical Univ.                             |  | Yinchao Chen                                                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute |
| Changqing Wang                                                                                                                                 | Northwestern Polytechnical Univ.                             |  | Zhenyu Wang                                                                                                                                      | AVIC Chengdu Aircraft Design and Research Institute |
| Zhengchen Fan                                                                                                                                  | Northwestern Polytechnical Univ.                             |  | Zhong Wang                                                                                                                                       | Northwestern Polytechnical Univ.                    |
| Guangdong Zhang                                                                                                                                | Northwestern Polytechnical Univ.                             |  | Yan Li                                                                                                                                           | Northwestern Polytechnical Univ.                    |
| Xiangdong Sheng                                                                                                                                | China Merchants Bank Network Technology (Shenzhen) Co., Ltd. |  | 08:30-12:00                                                                                                                                      | C12.113                                             |
| 08:30-12:00                                                                                                                                    | C12.107                                                      |  | <b>514</b> <i>Polarization-aware incremental HRRP recognition with mild energy constraint</i>                                                    |                                                     |
| <b>1624</b> <i>Research on unsteady aerodynamic modeling based on flow separation model and deep neural network</i>                            |                                                              |  | Xiaoyu Xu                                                                                                                                        | Naval Aviation Univ.                                |
| Zhigang Wang                                                                                                                                   | Shanghai Aircraft Flight Test Co.,Ltd.                       |  | Mingbo Zhu                                                                                                                                       | Naval Aviation Univ.                                |
| Rui Zhao                                                                                                                                       | Northwestern Polytechnical Univ.                             |  | Bo Dan                                                                                                                                           | Naval Aviation Univ.                                |
| Yi Mi                                                                                                                                          | Shanghai Aircraft Flight Test Co.,Ltd.                       |  | Zhengwu Li                                                                                                                                       | Naval Aviation Univ.                                |
| Jiaxiang Han                                                                                                                                   | Northwestern Polytechnical Univ.                             |  | 08:30-12:00                                                                                                                                      | C12.114                                             |
| 08:30-12:00                                                                                                                                    | C12.108                                                      |  | <b>599</b> <i>An oFAST-rBRIEF and genetic-algorithm-based coarse-to-fine method for infrared and visible image registration of circuit board</i> |                                                     |
| <b>466</b> <i>Environmentally aware adaptive path planning for low-altitude urban drones heuristic search framework</i>                        |                                                              |  | Hui Li                                                                                                                                           | Naval Aviation Univ.                                |
| Ruijie Song                                                                                                                                    | Hohai Univ.                                                  |  | Heng Li                                                                                                                                          | Naval Aviation Univ.                                |
| Haohan Zhang                                                                                                                                   | Hohai Univ.                                                  |  | Yanzi Miao                                                                                                                                       | China Univ. of Mining and Technology                |
| Liangdong Wen                                                                                                                                  | Hohai Univ.                                                  |  | Zhiyang Xu                                                                                                                                       | China Univ. of Mining and Technology                |
| 08:30-12:00                                                                                                                                    | C12.109                                                      |  | Xiuzhen Wu                                                                                                                                       | Naval Aviation Univ.                                |
| <b>491</b> <i>Prescribed-Time attitude control for loitering munitions</i>                                                                     |                                                              |  | 08:30-12:00                                                                                                                                      | C12.115                                             |
| Lei Su                                                                                                                                         | Xi'an Modern Control Technology Research Institute           |  | <b>798</b> <i>A spatial gating and scale-adaptive approach for dense UAV crowd tracking</i>                                                      |                                                     |
| Jianwei Li                                                                                                                                     | Xi'an Modern Control Technology Research Institute           |  | Yong Liang                                                                                                                                       | Naval Aviation Univ.                                |
| Tao Yu                                                                                                                                         | Xi'an Modern Control Technology Research Institute           |  | Zhengwu Li                                                                                                                                       | Naval Aviation Univ.                                |
| Gang Wang                                                                                                                                      | Xi'an Modern Control Technology Research Institute           |  | Shi Yan                                                                                                                                          | Naval Aviation Univ.                                |
| Xingchen Li                                                                                                                                    | Xi'an Modern Control Technology Research Institute           |  | Xiaoyu Xu                                                                                                                                        | Naval Aviation Univ.                                |
| 08:30-12:00                                                                                                                                    | C12.110                                                      |  | 08:30-12:00                                                                                                                                      | C12.116                                             |
| <b>961</b> <i>Prescribed-time attitude tracking control of rigid spacecraft with guaranteed performance under arbitrary initial conditions</i> |                                                              |  | <b>1190</b> <i>Research on initial alignment method for dual-axis rotation modulation inertial navigation system</i>                             |                                                     |
| Shuzong Xie                                                                                                                                    | Zhejiang Univ. of Science and Technology                     |  | Ruitao Li                                                                                                                                        | Naval Aeronautical Univ.                            |
| Junyu Chen                                                                                                                                     | Zhejiang Univ. of Science and Technology                     |  | Shi Yan                                                                                                                                          | Naval Aeronautical Univ.                            |
| Xiaoyu Yang                                                                                                                                    | Zhejiang Univ. of Technology                                 |  | 08:30-12:00                                                                                                                                      | C12.117                                             |
| Jiahao Huang                                                                                                                                   | Zhejiang Univ. of Science and Technology                     |  | <b>1192</b> <i>基于引导形态学规划的低空高速突防航迹生成方法</i>                                                                                                        |                                                     |
| Qiang Chen                                                                                                                                     | Zhejiang Univ. of Technology                                 |  | Shi Yan                                                                                                                                          | Naval Aeronautical Univ.                            |
| Beiping Hou                                                                                                                                    | Zhejiang Univ. of Science and Technology                     |  | Guilin Wu                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics       |
| 08:30-12:00                                                                                                                                    | C12.111                                                      |  | Yong Liang                                                                                                                                       | Naval Aeronautical Univ.                            |
| <b>1267</b> <i>基于预设轨迹的变体飞行器鲁棒预定时间跟踪控制</i>                                                                                                      |                                                              |  | 08:30-12:00                                                                                                                                      | C12.118                                             |
| Lin He                                                                                                                                         | Xiangtan Univ.                                               |  | <b>1289</b> <i>基于时间同步的多无人机协同环绕控制</i>                                                                                                             |                                                     |
|                                                                                                                                                |                                                              |  | Yahui Qi                                                                                                                                         | Naval Aeronautical Univ.                            |
|                                                                                                                                                |                                                              |  | Luyu Liu                                                                                                                                         | Naval Aeronautical Univ.                            |
|                                                                                                                                                |                                                              |  | Xiuzhen Wu                                                                                                                                       | Naval Aeronautical Univ.                            |
|                                                                                                                                                |                                                              |  | 08:30-12:00                                                                                                                                      | C12.119                                             |
|                                                                                                                                                |                                                              |  | <b>1720</b> <i>Target allocation method for UAV swarm collaborative rescue based on SA-PSO</i>                                                   |                                                     |
|                                                                                                                                                |                                                              |  | Shicheng Xiong                                                                                                                                   | Unit 92942 of the PLA                               |
|                                                                                                                                                |                                                              |  | Shuailei Wang                                                                                                                                    | Unit 92942 of the PLA                               |

|                                                                                                                                                       |                                                       |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--|--|
| XueLiang Tian                                                                                                                                         | Unit 92942 of the PLA                                 |  |  |
| 08:30-12:00                                                                                                                                           | C12.120                                               |  |  |
| <b>427</b> Domain generalization for wind turbine defect detection under adverse weather conditions                                                   |                                                       |  |  |
| Jinhan Zhou                                                                                                                                           | Shantou Univ.                                         |  |  |
| Jingwei Sun                                                                                                                                           | Shantou Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.121                                               |  |  |
| <b>650</b> Towards real-time UAV-anti-UAV tracking: an embedded hardware platform and lightweight benchmark                                           |                                                       |  |  |
| Yunsong Bai                                                                                                                                           | Sun Yat-sen Univ.                                     |  |  |
| Zhe Zhang                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| Ruhai Long                                                                                                                                            | Sun Yat-sen Univ.                                     |  |  |
| Mingyuan Li                                                                                                                                           | Sun Yat-sen Univ.                                     |  |  |
| Chengwei Li                                                                                                                                           | Sun Yat-sen Univ.                                     |  |  |
| Yong Wang                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| Shunan Wu                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| ZhiGang Wu                                                                                                                                            | Sun Yat-sen Univ.                                     |  |  |
| 08:30-12:00                                                                                                                                           | C12.122                                               |  |  |
| <b>679</b> Occlusion-aware data augmentation for domain generalization in wind turbine blade instance segmentation                                    |                                                       |  |  |
| Shuxing He                                                                                                                                            | Shantou Univ.                                         |  |  |
| Jingwei Sun                                                                                                                                           | Shantou Univ.                                         |  |  |
| Mingwei Wang                                                                                                                                          | Shantou Univ.                                         |  |  |
| Shuonan Zheng                                                                                                                                         | Shantou Univ.                                         |  |  |
| Lishuang Yao                                                                                                                                          | Shantou Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.123                                               |  |  |
| <b>1094</b> On the transferability of DINO-GFSA to nighttime satellite-thermal geo-localization                                                       |                                                       |  |  |
| Yuanshen Guo                                                                                                                                          | Sun Yat-sen Univ.                                     |  |  |
| Beier Hu                                                                                                                                              | Sun Yat-sen Univ.                                     |  |  |
| Zihao Hua                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| Yong Wang                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| Shunan Wu                                                                                                                                             | Sun Yat-sen Univ.                                     |  |  |
| ZhiGang Wu                                                                                                                                            | Sun Yat-sen Univ.                                     |  |  |
| 08:30-12:00                                                                                                                                           | C12.124                                               |  |  |
| <b>1164</b> An improved YOLO method with feature enhancement and attention guidance for wind turbine blade defect detection in complex scenarios      |                                                       |  |  |
| Jingwei Sun                                                                                                                                           | Shantou Univ.                                         |  |  |
| Mingwei Wang                                                                                                                                          | Shantou Univ.                                         |  |  |
| Zexiao Wei                                                                                                                                            | Shantou Univ.                                         |  |  |
| Kaibing Zhou                                                                                                                                          | Shantou Univ.                                         |  |  |
| Jie Guo                                                                                                                                               | Shantou Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.125                                               |  |  |
| <b>1713</b> Research on a wind turbine blade damage detection model based on an improved YOLOv5                                                       |                                                       |  |  |
| Haohan Wu                                                                                                                                             | Shantou Univ.                                         |  |  |
| Kunyu Li                                                                                                                                              | Shantou Univ.                                         |  |  |
| Zexiao Wei                                                                                                                                            | Shantou Univ.                                         |  |  |
| Jingwei Sun                                                                                                                                           | Shantou Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.126                                               |  |  |
| <b>200</b> Research on ground taxiing deviation correction for UAV                                                                                    |                                                       |  |  |
| Jingjing He                                                                                                                                           | AVIC the First Aircraft Institute                     |  |  |
| Zhixuan Su                                                                                                                                            | AVIC the First Aircraft Institute                     |  |  |
| Xiaolei Ma                                                                                                                                            | AVIC the First Aircraft Institute                     |  |  |
| Haogang Zhao                                                                                                                                          | AVIC the First Aircraft Institute                     |  |  |
| 08:30-12:00                                                                                                                                           | C12.127                                               |  |  |
| <b>1061</b> Integrated management and control design method for UAV airborne equipment                                                                |                                                       |  |  |
| Yanhao Liu                                                                                                                                            | AVIC the First Aircraft Institute                     |  |  |
| Yan Zhu                                                                                                                                               | AVIC the First Aircraft Institute                     |  |  |
| 08:30-12:00                                                                                                                                           | C12.128                                               |  |  |
| <b>205</b> Gated predictive attention transformer for multi-agent BVR air combat under partial observability                                          |                                                       |  |  |
| Zheng Guo                                                                                                                                             | Beihang Univ.                                         |  |  |
| Jianglong Yu                                                                                                                                          | Beihang Univ.                                         |  |  |
| Yiming Chen                                                                                                                                           | Beihang Univ.                                         |  |  |
| Kanghao Zhang                                                                                                                                         | Beihang Univ.                                         |  |  |
| Zhang Ren                                                                                                                                             | Beihang Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.129                                               |  |  |
| <b>559</b> Teaching reform and development of a flagship course in guidance and control under the "double first-class" initiative                     |                                                       |  |  |
| Jianglong Yu                                                                                                                                          | Beihang Univ.                                         |  |  |
| Linpu Cai                                                                                                                                             | Beihang Univ.                                         |  |  |
| Xi Wang Dong                                                                                                                                          | Beihang Univ.                                         |  |  |
| Zhang Ren                                                                                                                                             | Beihang Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.130                                               |  |  |
| <b>1175</b> Modeling and simulation of elastic projectiles at high angles of attack                                                                   |                                                       |  |  |
| Yanhong Wei                                                                                                                                           | Beihang Univ.                                         |  |  |
| Jianglong Yu                                                                                                                                          | Beihang Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.131                                               |  |  |
| <b>1356</b> Time-coordinated trajectory planning for multi-UAV systems in bounded crosswinds: an analytical dimensionality-reduction memetic approach |                                                       |  |  |
| Hou Yi                                                                                                                                                | Beihang Univ.                                         |  |  |
| Jianglong Yu                                                                                                                                          | Beihang Univ.                                         |  |  |
| Xianyi Yang                                                                                                                                           | Beihang Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.132                                               |  |  |
| <b>1405</b> Cooperative kalman filtering for target acceleration estimation with LSTM-based covariance prediction                                     |                                                       |  |  |
| Changhai Wang                                                                                                                                         | Beijing Institute of Astronautical System Engineering |  |  |
| Yu Hu                                                                                                                                                 | Beijing Institute of Astronautical System Engineering |  |  |
| Jianglong Yu                                                                                                                                          | Beihang Univ.                                         |  |  |
| Xi Wang Dong                                                                                                                                          | Beihang Univ.                                         |  |  |
| Qingdong Li                                                                                                                                           | Beihang Univ.                                         |  |  |
| 08:30-12:00                                                                                                                                           | C12.133                                               |  |  |
| <b>1092</b> 基于切换事件触发的导弹指定精度制导律研究                                                                                                                      |                                                       |  |  |
| Yuxin Gao                                                                                                                                             | Tianjin Sino-German Univ. of Applied Sciences         |  |  |
| Jingliang Sun                                                                                                                                         | Beijing Institute of Technology                       |  |  |
| Lian Chen                                                                                                                                             | Tianjin Sino-German Univ. of Applied Sciences         |  |  |
| Donglin Zhou                                                                                                                                          | Tianjin Sino-German Univ. of Applied Sciences         |  |  |
| 08:30-12:00                                                                                                                                           | C12.134                                               |  |  |
| <b>1583</b> Clutter-aware query assignment for small object detection in aerial imagery                                                               |                                                       |  |  |
| Chenxi Zhang                                                                                                                                          | Beijing Univ. of Technology                           |  |  |
| Quan Hao                                                                                                                                              | Beijing Univ. of Technology                           |  |  |
| Heng Deng                                                                                                                                             | Beijing Univ. of Technology                           |  |  |
| Liguo Zhang                                                                                                                                           | Beijing Univ. of Technology                           |  |  |

|                                                                                                                                                     |                                                                                                          |  |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|------------------------|
| 08:30-12:00                                                                                                                                         | C12.135                                                                                                  |  |                        |
| <b>1144</b> <i>Frequency modulation is not dead: the implementation of the large dynamic range, high accuracy, and low noise HRG</i>                |                                                                                                          |  |                        |
| Kaichen Yan                                                                                                                                         | Northwestern Polytechnical Univ.                                                                         |  |                        |
| Xiaoxu Wang                                                                                                                                         | Northwestern Polytechnical Univ.                                                                         |  |                        |
| Rao Wang                                                                                                                                            | Northwestern Polytechnical Univ.                                                                         |  |                        |
| Lei Fu                                                                                                                                              | Northwestern Polytechnical Univ.                                                                         |  |                        |
| Qianbo Lu                                                                                                                                           | Northwestern Polytechnical Univ.                                                                         |  |                        |
| 08:30-12:00                                                                                                                                         | C12.136                                                                                                  |  |                        |
| <b>201</b> <i>Quantum single-photon detection-oriented fast X-ray pulsar period estimation method</i>                                               |                                                                                                          |  |                        |
| Tianhao Xie                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| Xiaoyu Yang                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| Xin Ma                                                                                                                                              | Beihang Univ.                                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.137                                                                                                  |  |                        |
| <b>1116</b> <i>Influence analysis of polarization azimuth drift error in comagnetometers</i>                                                        |                                                                                                          |  |                        |
| Lele Ma                                                                                                                                             | Beihang Univ.                                                                                            |  |                        |
| Haoying Pang                                                                                                                                        | Beihang Univ.                                                                                            |  |                        |
| Jixi Lu                                                                                                                                             | Beihang Univ.                                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.138                                                                                                  |  |                        |
| <b>1446</b> <i>SERF 惯性测量气室高精度交流温控系统设计</i>                                                                                                           |                                                                                                          |  |                        |
| Chenran Liu                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| Wenfeng Fan                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| Can Wang                                                                                                                                            | Hangzhou Institute of Extremely-Weak Magnetic Field Major National Science and Technology Infrastructure |  |                        |
| 08:30-12:00                                                                                                                                         | C12.139                                                                                                  |  |                        |
| <b>658</b> <i>Magnetic signal detection and feature analysis of lung dust simulants based on a 64-channel atomic magnetometer array</i>             |                                                                                                          |  |                        |
| Zhen Zhai                                                                                                                                           | China Jiliang Univ.                                                                                      |  |                        |
| Xinxu Zhou                                                                                                                                          | National Institute of Extremely-Weak Magnetic Field Infrastructure                                       |  |                        |
| Baosheng Wang                                                                                                                                       | National Institute of Extremely-Weak Magnetic Field Infrastructure                                       |  |                        |
| Xiaole Han                                                                                                                                          | National Institute of Extremely-Weak Magnetic Field Infrastructure                                       |  |                        |
| 08:30-12:00                                                                                                                                         | C12.140                                                                                                  |  |                        |
| <b>1500</b> <i>Magnetic-field-enhanced modulation transfer spectroscopy of the 770 nm potassium atomic transition</i>                               |                                                                                                          |  |                        |
| Le Wang                                                                                                                                             | Beihang Univ.                                                                                            |  |                        |
| Xinxu Zhou                                                                                                                                          | Beihang Univ.                                                                                            |  |                        |
| Wenlei Zhao                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.141                                                                                                  |  |                        |
| <b>1523</b> <i>Precision temperature control and wideband servo techniques for PDH frequency stabilization</i>                                      |                                                                                                          |  |                        |
| Tiantian Guo                                                                                                                                        | Beihang Univ.                                                                                            |  |                        |
| Xinxu Zhou                                                                                                                                          | Beihang Univ.                                                                                            |  |                        |
| Zhaoyang Cao                                                                                                                                        | Beihang Univ.                                                                                            |  |                        |
| Wenlei Zhao                                                                                                                                         | Beihang Univ.                                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.142                                                                                                  |  |                        |
| <b>734</b> <i>基于可变组件复用的飞控系统软件技术研究</i>                                                                                                               |                                                                                                          |  |                        |
| Yongyi Liu                                                                                                                                          | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| Zhigang Wang                                                                                                                                        | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| Yixuan Wu                                                                                                                                           | AVIC Shenyang Aircraft Design                                                                            |  |                        |
|                                                                                                                                                     |                                                                                                          |  | and Research Institute |
| Limeng Zhao                                                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| 08:30-12:00                                                                                                                                         | C12.143                                                                                                  |  |                        |
| <b>757</b> <i>The prediction of missile aerodynamic characteristics under body separation wake interference</i>                                     |                                                                                                          |  |                        |
| Jianwen Zang                                                                                                                                        | Dalian Univ. of Technology                                                                               |  |                        |
| Ming Yan                                                                                                                                            | Dalian Univ. of Technology                                                                               |  |                        |
| Yue Zhang                                                                                                                                           | Dalian Univ. of Technology                                                                               |  |                        |
| Yanqi Feng                                                                                                                                          | Sun Yat-sen Univ.                                                                                        |  |                        |
| Kai Liu                                                                                                                                             | Dalian Univ. of Technology                                                                               |  |                        |
| 08:30-12:00                                                                                                                                         | C12.144                                                                                                  |  |                        |
| <b>903</b> <i>An OS-ELM-based online residual identification method for predictive control-oriented aerodynamic modeling</i>                        |                                                                                                          |  |                        |
| Zeyu Jin                                                                                                                                            | Dalian Univ. of Technology                                                                               |  |                        |
| Kai Liu                                                                                                                                             | Dalian Univ. of Technology                                                                               |  |                        |
| Qingfeng Zhao                                                                                                                                       | Dalian Univ. of Technology                                                                               |  |                        |
| Ming Yan                                                                                                                                            | Dalian Univ. of Technology                                                                               |  |                        |
| 08:30-12:00                                                                                                                                         | C12.145                                                                                                  |  |                        |
| <b>1638</b> <i>Redundant flight control system integrator design methods</i>                                                                        |                                                                                                          |  |                        |
| Yanguo Hu                                                                                                                                           | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| Yifan Qi                                                                                                                                            | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| Yuxiang Qiu                                                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| Jingling Gui                                                                                                                                        | AVIC Shenyang Aircraft Design and Research Institute                                                     |  |                        |
| 08:30-12:00                                                                                                                                         | C12.146                                                                                                  |  |                        |
| <b>1147</b> <i>Adaptive control for multi-UAV cooperative transportation based on integral backstepping and geometric sliding mode</i>              |                                                                                                          |  |                        |
| Yunjie Lei                                                                                                                                          | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Yuxun Cao                                                                                                                                           | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Wenlai Ma                                                                                                                                           | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Wei Hao                                                                                                                                             | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Tong Mei                                                                                                                                            | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Ruian Wang                                                                                                                                          | Shandong Univ. of Aeronautics                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.147                                                                                                  |  |                        |
| <b>1149</b> <i>Anti-swing control design for quadrotor uav with elastic cable-suspended payload based on adaptive fractional-order sliding mode</i> |                                                                                                          |  |                        |
| Yuxun Cao                                                                                                                                           | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Yunjie Lei                                                                                                                                          | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Wei Hao                                                                                                                                             | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Wenlai Ma                                                                                                                                           | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Tong Mei                                                                                                                                            | Shandong Univ. of Aeronautics                                                                            |  |                        |
| Ruian Wang                                                                                                                                          | Shandong Univ. of Aeronautics                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.148                                                                                                  |  |                        |
| <b>1354</b> <i>Research on multi-agent path planning in terminal buildings based on the improved MAPPO algorithm</i>                                |                                                                                                          |  |                        |
| Guochen Niu                                                                                                                                         | Civil Aviation Univ. of China                                                                            |  |                        |
| Yi Man                                                                                                                                              | Civil Aviation Univ. of China                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.149                                                                                                  |  |                        |
| <b>1358</b> <i>一种面向消费级深度相机的计算摄影框架</i>                                                                                                               |                                                                                                          |  |                        |
| Guochen Niu                                                                                                                                         | Civil Aviation Univ. of China                                                                            |  |                        |
| Haoyu Zhou                                                                                                                                          | Civil Aviation Univ. of China                                                                            |  |                        |
| 08:30-12:00                                                                                                                                         | C12.150                                                                                                  |  |                        |

**1389** 面向动态环境的服务机器人自适应权重模型预测控制安全导航方法

|              |                               |
|--------------|-------------------------------|
| Chuansu Peng | Civil Aviation Univ. of China |
| Xiao Luo     | Civil Aviation Univ. of China |
| Haoyu Zhou   | Civil Aviation Univ. of China |
| Guochan Niu  | Civil Aviation Univ. of China |

08:30-12:00 C12.151

**1392** 基于视觉的飞行区空域入侵物追踪与轨迹预测方法

|             |                               |
|-------------|-------------------------------|
| Guochan Niu | Civil Aviation Univ. of China |
| Zhihao Lv   | Civil Aviation Univ. of China |

08:30-12:00 C12.152

**577** *Intelligent identification of flight vehicle under incomplete information conditions*

|               |                                                    |
|---------------|----------------------------------------------------|
| Zhengquan Liu | Rocket Force Univ. of Engineering                  |
| Yang Guo      | Rocket Force Univ. of Engineering                  |
| Haitao Song   | Rocket Force Univ. of Engineering                  |
| Xiaoyu Ma     | Rocket Force Univ. of Engineering                  |
| Meixi Xu      | Rocket Force Univ. of Engineering                  |
| Jian Zhou     | Xi'an Modern Control Technology Research Institute |

08:30-12:00 C12.153

**619** *Modeling dual-point total-field magnetic velocity observation with optical-pump magnetometers*

|                |                                             |
|----------------|---------------------------------------------|
| Changchao Wang | Zhejiang Univ.                              |
| Mingxian Fu    | Zhejiang Univ.                              |
| XiaoXiang Liu  | Zhejiang Univ.                              |
| Shuai Zhao     | Jiangxi Qiushi Academy of Advanced Research |
| Tengchao Huang | Zhejiang Univ.                              |
| Yilan Zhou     | Zhejiang Univ.                              |

08:30-12:00 C12.154

**635** *A method for vector magnetic measurement data compensation based on total field optimization*

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| Dehui Zhang    | Rocket Force Univ. of Engineering                                             |
| Ting Li        | Rocket Force Univ. of Engineering                                             |
| Jinsheng Zhang | Rocket Force Univ. of Engineering                                             |
| Xiaoyu Ma      | Rocket Force Univ. of Engineering                                             |
| Jingya Chen    | Rocket Force Univ. of Engineering                                             |
| Yao Luo        | China Aero Geophysical Survey and Remote Sensing Center for Natural Resources |
| Shihua Liu     | China Aero Geophysical Survey and Remote Sensing Center for Natural Resources |

08:30-12:00 C12.155

**642** *INER-SSM: State space modeling for inertial navigation error dynamics in high-dynamic environments*

|                |                                             |
|----------------|---------------------------------------------|
| Mingxian Fu    | Zhejiang Univ.                              |
| Changchao Wang | Zhejiang Univ.                              |
| XiaoXiang Liu  | Zhejiang Univ.                              |
| Shuai Zhao     | Jiangxi Qiushi Academy of Advanced Research |
| Yilan Zhou     | Zhejiang Univ.                              |
| Tengchao Huang | Zhejiang Univ.                              |

08:30-12:00 C12.156

**394** *Multi-UAV cooperative interception method based on improved self-organizing model*

|            |                                                        |
|------------|--------------------------------------------------------|
| Wenjin Liu | AVIC Xi'an Flight Automatic Control Research institute |
| Ke Yu      | AVIC Xi'an Flight Automatic Control Research institute |
| Nan Han    | AVIC Xi'an Flight Automatic Control Research institute |
| Chao Jiang | AVIC Xi'an Flight Automatic Control Research institute |

08:30-12:00 C12.157

**1155** *A goal-oriented multi-agent pursuit method for unmanned surface vessels based on MADDPG-HER*

|               |                                                     |
|---------------|-----------------------------------------------------|
| Tianlin Chen  | Shanghai Univ.                                      |
| Xiaoqing Chen | National Innovation Institute of Defense Technology |
| Zhifei Xi     | National Innovation Institute of Defense Technology |
| Rui Song      | Shanghai Univ.                                      |
| Rong Feng     | National Innovation Institute of Defense Technology |
| Dongke Liu    | Shanghai Univ.                                      |
| Yan Peng      | Shanghai Univ.                                      |

08:30-12:00 C12.158

**1214** *TriMamba-OC: Tri-branch temporal perception for USV collision avoidance under ocean current disturbances*

|              |                                             |
|--------------|---------------------------------------------|
| Yu Zhang     | Shanghai Univ.                              |
| Xiangfeng Ma | CSSC Systems Engineering Research Institute |
| Rui Song     | Shanghai Univ.                              |
| Hanxiao Liu  | Shanghai Univ.                              |
| Yan Peng     | Shanghai Univ.                              |

08:30-12:00 C12.159

**1348** *A causal attention-enhanced UAV intent recognition framework for low-altitude safety protection decision-making*

|              |                                                         |
|--------------|---------------------------------------------------------|
| Jinyu Ma     | Univ. of Shanghai for science and technology            |
| Yang Zhang   | No. 92728 Unit of PLA                                   |
| Yunxiao Liu  | China Aeronautical Radio Electronics Research Institute |
| Jianliang Ai | Fudan Univ.                                             |
| Han Li       | Univ. of Shanghai for Science and Technology            |

08:30-12:00 C12.160

**1355** *A review of automated course of action generation technologies for aviation equipment*

|                |                                                         |
|----------------|---------------------------------------------------------|
| Liangfeng Chen | Univ. of Shanghai for Science and Technology            |
| Yang Zhang     | Naval Aeronautical Univ.                                |
| Yunxiao Liu    | China Aeronautical Radio Electronics Research Institute |
| Jianliang Ai   | Fudan Univ.                                             |
| Han Li         | Univ. of Shanghai for Science and Technology            |

08:30-12:00 C12.161

**580** *Heterogeneous UAV air combat cooperative decision-making via situation-based hierarchical reinforcement learning*

|              |               |
|--------------|---------------|
| Qing Zhang   | Beihang Univ. |
| Yangzhu Wang | Beihang Univ. |

|                                                                                                                                              |                                                          |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--|--|
| Xiaoman Zhang                                                                                                                                | Beihang Univ.                                            |  |  |
| Kun Wu                                                                                                                                       | Beihang Univ.                                            |  |  |
| Huaxin Qiu                                                                                                                                   | Beihang Univ.                                            |  |  |
| 08:30-12:00                                                                                                                                  | C12.162                                                  |  |  |
| <b>803</b> <i>Distributed approach for multi-satellite task allocation based on potential game and dynamic programming</i>                   |                                                          |  |  |
| Junchi Shi                                                                                                                                   | Beijing Univ. of Technology                              |  |  |
| Changhao Sun                                                                                                                                 | China Academy of Space Technology                        |  |  |
| Xiangyin Zhang                                                                                                                               | Beijing Univ. of Technology                              |  |  |
| 08:30-12:00                                                                                                                                  | C12.163                                                  |  |  |
| <b>976</b> <i>Vertical overload prediction during aircraft landing based on GRU-attention model enhanced by holistic swarm optimization</i>  |                                                          |  |  |
| Wubin Huang                                                                                                                                  | Beihang Univ.                                            |  |  |
| Huaxin Qiu                                                                                                                                   | Beihang Univ.                                            |  |  |
| Yangzhu Wang                                                                                                                                 | Beihang Univ.                                            |  |  |
| Wei Lan                                                                                                                                      | Beihang Univ.                                            |  |  |
| Yang Meng                                                                                                                                    | Beihang Univ.                                            |  |  |
| Li Shen                                                                                                                                      | Beihang Univ.                                            |  |  |
| 08:30-12:00                                                                                                                                  | C12.164                                                  |  |  |
| <b>1130</b> <i>Performance analysis of a space-based optical observation system for geostationary orbit</i>                                  |                                                          |  |  |
| Ying Yang                                                                                                                                    | China Academy of Space Technology                        |  |  |
| Changhao Sun                                                                                                                                 | China Academy of Space Technology                        |  |  |
| Qingrui Zhou                                                                                                                                 | China Academy of Space Technology                        |  |  |
| 08:30-12:00                                                                                                                                  | C12.165                                                  |  |  |
| <b>1365</b> 基于大语言模型多智能体协同的卫星动态调度冲突消解策略                                                                                                       |                                                          |  |  |
| Ying Cheng                                                                                                                                   | Hefei Univ. of Technology                                |  |  |
| Haiquan Sun                                                                                                                                  | Hefei Univ. of Technology                                |  |  |
| Junting Wang                                                                                                                                 | Hefei Univ. of Technology                                |  |  |
| Wei Xia                                                                                                                                      | Hefei Univ. of Technology                                |  |  |
| 08:30-12:00                                                                                                                                  | C12.166                                                  |  |  |
| <b>189</b> <i>Performance-guaranteed prescribed-times optimized control of quadrotor UAVs with asymmetric constraints and disturbances</i>   |                                                          |  |  |
| Ce Wang                                                                                                                                      | Anhui Univ. of Technology                                |  |  |
| Zhengguo Huang                                                                                                                               | Anhui Univ. of Technology                                |  |  |
| XiangYu Xu                                                                                                                                   | Anhui Univ. of Technology                                |  |  |
| Jing Wang                                                                                                                                    | Anhui Univ. of Technology                                |  |  |
| Hao Shen                                                                                                                                     | Anhui Univ. of Technology                                |  |  |
| Lei Su                                                                                                                                       | Anhui Univ. of Technology                                |  |  |
| 08:30-12:00                                                                                                                                  | C12.167                                                  |  |  |
| <b>582</b> <i>Adaptive noise-aware robust information-consensus EKF for distributed bearing-only localization in non-coplanar rendezvous</i> |                                                          |  |  |
| Zihan Zhen                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| Zengliang Han                                                                                                                                | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| Min Wan                                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| 08:30-12:00                                                                                                                                  | C12.168                                                  |  |  |
| <b>692</b> 基于 DQN 载核辐射监测无人机路径规划算法研究                                                                                                          |                                                          |  |  |
| Xinyu Yang                                                                                                                                   | Taiyuan Univ. of Technology                              |  |  |
| Rong Li                                                                                                                                      | Taiyuan Univ. of Technology                              |  |  |
| Guoqiang Li                                                                                                                                  | Shanxi Key Laboratory of Nuclear and Radiation Emergency |  |  |
| Xinying Xu                                                                                                                                   | Taiyuan Univ. of Technology                              |  |  |
| 08:30-12:00                                                                                                                                  | C12.169                                                  |  |  |
| <b>853</b> 无人直升机有限时间非对称约束抗干扰飞行跟踪控制                                                                                                           |                                                          |  |  |
| Ruihan He                                                                                                                                    | Xi'an Univ. of Technology                                |  |  |
| Yankai Li                                                                                                                                    | Xi'an Univ. of Technology                                |  |  |
| Yihan Wang                                                                                                                                   | Xi'an Univ. of Technology                                |  |  |
| Dongping Li                                                                                                                                  | Xi'an Technological Univ.                                |  |  |
| Shuyi Shao                                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| Pu Zhang                                                                                                                                     | Xi'an Univ. of Technology                                |  |  |
| Yuan Chen                                                                                                                                    | Xi'an Univ. of Technology                                |  |  |
| 08:30-12:00                                                                                                                                  | C12.170                                                  |  |  |
| <b>1536</b> <i>Resilient average consensus against collusive network attacks</i>                                                             |                                                          |  |  |
| Qiu Li                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| Bin Du                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics            |  |  |
| 08:30-12:00                                                                                                                                  | C12.171                                                  |  |  |
| <b>1736</b> <i>Development of a quadrotor UAV experimental platform for education</i>                                                        |                                                          |  |  |
| WenXue Bao                                                                                                                                   | Jiangsu Univ. of Science and Technology                  |  |  |
| Hui Ye                                                                                                                                       | Jiangsu Univ. of Science and Technology                  |  |  |
| Meng Ni                                                                                                                                      | Jiangsu Univ. of Science and Technology                  |  |  |
| Yaohua Shen                                                                                                                                  | Jiangsu Univ. of Science and Technology                  |  |  |
| 08:30-12:00                                                                                                                                  | C12.172                                                  |  |  |
| <b>131</b> <i>Research on a deep learning-based aircraft skin defect detection and recognition system</i>                                    |                                                          |  |  |
| Shun Wang                                                                                                                                    | Qilu Univ. of Technology                                 |  |  |
| Yiqun Lv                                                                                                                                     | Qilu Univ. of Technology                                 |  |  |
| Qingzhao Jia                                                                                                                                 | Qilu Univ. of Technology                                 |  |  |
| Yanqiang Li                                                                                                                                  | Qilu Univ. of Technology                                 |  |  |
| Daifeng Zhang                                                                                                                                | Qilu Univ. of Technology                                 |  |  |
| 08:30-12:00                                                                                                                                  | C12.173                                                  |  |  |
| <b>132</b> <i>Time-domain UVLM aerodynamic modeling and validation for wind gust response in high aspect ratio UAVs</i>                      |                                                          |  |  |
| Qingzhao Jia                                                                                                                                 | Qilu Univ. of Technology                                 |  |  |
| Shun Wang                                                                                                                                    | Qilu Univ. of Technology                                 |  |  |
| Yiqun Lv                                                                                                                                     | Qilu Univ. of Technology                                 |  |  |
| Yanqiang Li                                                                                                                                  | Qilu Univ. of Technology                                 |  |  |
| Daifeng Zhang                                                                                                                                | Qilu Univ. of Technology                                 |  |  |
| <b>D1</b>                                                                                                                                    | <b>1st Floor VIP Room</b>                                |  |  |
| <b>Swarm GNC</b>                                                                                                                             | <b>1 层 贵宾厅</b>                                           |  |  |
| Chairs: Zhenghao Ni                                                                                                                          |                                                          |  |  |
| 15:45-15:53                                                                                                                                  | D1.1                                                     |  |  |
| <b>477</b> <i>UAV formation cooperative control under communication constraints via improved pigeon-inspired optimization</i>                |                                                          |  |  |
| Zhenghao Ni                                                                                                                                  | Beihang Univ.                                            |  |  |
| Haibin Duan                                                                                                                                  | Beihang Univ.                                            |  |  |
| 15:53-16:01                                                                                                                                  | D1.2                                                     |  |  |
| <b>478</b> <i>Parameter design for UAV autonomous landing via nonlinear adaptive and opposition pigeon-inspired optimization</i>             |                                                          |  |  |
| Xiaoran Li                                                                                                                                   | Beihang Univ.                                            |  |  |
| Yimin Deng                                                                                                                                   | Beihang Univ.                                            |  |  |
| Yongbin Sun                                                                                                                                  | Beihang Univ.                                            |  |  |
| Haibin Duan                                                                                                                                  | Beihang Univ.                                            |  |  |
| 16:01-16:09                                                                                                                                  | D1.3                                                     |  |  |
| <b>553</b> <i>Cauchy-Gaussian adaptive mutation pigeon-inspired optimization for integral sliding mode control of aerial manipulator</i>     |                                                          |  |  |

|                                                                                                              |                                               |                                                                                                      |                                                        |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Deshuang Zhang                                                                                               | Beihang Univ.                                 | 17:05-17:13                                                                                          | D1.11                                                  |
| Chen Wei                                                                                                     | Beihang Univ.                                 | 974 A multi-agent test case generation framework for military GNC software                           |                                                        |
| Haibin Duan                                                                                                  | Beihang Univ.                                 | Gang Yang                                                                                            | AVIC Xi'an Flight Automatic Control Research Institute |
| 16:09-16:17                                                                                                  | D1.4                                          | Jia Tian                                                                                             | AVIC Xi'an Flight Automatic Control Research Institute |
| 1550 Graph convolutional network guided artificial hummingbird clustering topology optimization for FANETS   |                                               |                                                                                                      |                                                        |
| Zhuolin Xing                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics | 17:13-17:21                                                                                          | D1.12                                                  |
| Ke Zhang                                                                                                     | Nanjing Univ. of Aeronautics and Astronautics | 1093 P3RAG: Process parameter planning via retrieval-augmented generation                            |                                                        |
| Bin Jiang                                                                                                    | Nanjing Univ. of Aeronautics and Astronautics | Yihui Wang                                                                                           | Beijing Institute of Technology                        |
| Wanglei Cheng                                                                                                | Nanjing Univ. of Aeronautics and Astronautics | Meiling Wang                                                                                         | Beijing Institute of Technology                        |
| 16:17-16:25                                                                                                  | D1.5                                          | Xiaohan He                                                                                           | Beijing Institute of Technology                        |
| 240 融合障碍函数的拉格朗日安全强化学习无人机动态避让规划                                                                               |                                               |                                                                                                      |                                                        |
| Zan Ma                                                                                                       | Civil Aviation Univ. of China                 | Yinchi Li                                                                                            | Beijing Institute of Technology                        |
| Chunlin He                                                                                                   | Civil Aviation Univ. of China                 | Ming Jian                                                                                            | Beijing Institute of Technology                        |
| Liqin Yan                                                                                                    | Civil Aviation Univ. of China                 | Shuming Zhang                                                                                        | Beijing Institute of Technology                        |
| Jie Bai                                                                                                      | Civil Aviation Univ. of China                 | 17:21-17:29                                                                                          | D1.13                                                  |
| 16:25-16:33                                                                                                  | D1.6                                          | 1244 基于瞬态感知 Shapelet 与集成相关性剪枝的多传感器液压系统故障诊断                                                           |                                                        |
| 480 Data-driven modeling of collective pigeon motion via behavior cloning                                    |                                               |                                                                                                      |                                                        |
| Yichen Tao                                                                                                   | Beihang Univ.                                 | Lu Lu                                                                                                | Nanjing Univ. of Aeronautics and Astronautics          |
| Haibin Duan                                                                                                  | Beihang Univ.                                 | Yajie Ma                                                                                             | Nanjing Univ. of Aeronautics and Astronautics          |
| Mengzhen Huo                                                                                                 | Beihang Univ.                                 | Bin Jiang                                                                                            | Nanjing Univ. of Aeronautics and Astronautics          |
| 16:33-16:41                                                                                                  | D1.7                                          | Qian Wang                                                                                            | Nanjing Univ. of Aeronautics and Astronautics          |
| 518 A lightweight YOLOv5-FFM model for UAV-based occluded pedestrian detection                               |                                               |                                                                                                      |                                                        |
| Xiaotong Zou                                                                                                 | Beihang Univ.                                 | 17:29-17:37                                                                                          | D1.14                                                  |
| Zhihao Cai                                                                                                   | Beihang Univ.                                 | 1394 Fixed-topology formation circumnavigation tracking control for second-order multi-agent systems |                                                        |
| Jiang Zhao                                                                                                   | Beihang Univ.                                 | Changhai Wang                                                                                        | Tsinghua Univ.                                         |
| Yingxun Wang                                                                                                 | Beihang Univ.                                 | Yu Hu                                                                                                | Beijing Institute of Astronautical System Engineering  |
| 16:41-16:49                                                                                                  | D1.8                                          | 17:37-17:45                                                                                          | D1.15                                                  |
| 687 Research on a quantitative evaluation method for drill bit wear based on 3D scanning and computer vision |                                               |                                                                                                      |                                                        |
| Yuanfei Zhang                                                                                                | China Univ. of Petroleum                      | 1498 Research on adaptive step length estimation based on CNN-BiLSTM                                 |                                                        |
| Yu Song                                                                                                      | China Univ. of Petroleum                      | Miao Zhang                                                                                           | Nanjing Univ. of Aeronautics and Astronautics          |
| Kun Jiang                                                                                                    | China Univ. of Petroleum                      | Zhi Xiong                                                                                            | Nanjing Univ. of Aeronautics and Astronautics          |
| 16:49-16:57                                                                                                  | D1.9                                          | Xiaodong Li                                                                                          | Nanjing Univ. of Aeronautics and Astronautics          |
| 838 Disturbance modeling and compensation for quadrotors in confined spaces                                  |                                               |                                                                                                      |                                                        |
| Huarui Xu                                                                                                    | Harbin Institute of Technology                | Yan Cui                                                                                              | Nanjing Univ. of Aeronautics and Astronautics          |
| Xu Wang                                                                                                      | Harbin institute of Technology                | Ling Zhang                                                                                           | Nanjing Univ. of Aeronautics and Astronautics          |
| Rui Zhou                                                                                                     | Harbin Institute of Technology                | D2 2nd Floor Yangshuo Room                                                                           |                                                        |
| Yanfang Liu                                                                                                  | Harbin Institute of Technology                | Distributed GNC 2 层 阳朔厅                                                                              |                                                        |
| Zhan Li                                                                                                      | Harbin Institute of Technology                | Chairs: Zhihua Cui                                                                                   |                                                        |
| 16:57-17:05                                                                                                  | D1.10                                         | 15:45-15:53                                                                                          | D2.1                                                   |
| 938 Target allocation under logical constraints based on decision-focused learning                           |                                               |                                                                                                      |                                                        |
| Haoxuan Zhang                                                                                                | Shanghai Jiao Tong Univ.                      | 1699 多无人机电力协同巡检的高维多目标多任务编队优化                                                                         |                                                        |
| Chenggang Wang                                                                                               | Shanghai Jiao Tong Univ.                      | Zhihua Cui                                                                                           | Taiyuan Univ. of Science and Technology                |
| Bochen Li                                                                                                    | Shanghai Jiao Tong Univ.                      | Hongyan Jiang                                                                                        | Taiyuan Univ. of Science and Technology                |
| Lu Ding                                                                                                      | Guang Xi Univ.                                | Ling Wang                                                                                            | Tsinghua Univ.                                         |
| Dan Huang                                                                                                    | Shanghai Jiao Tong Univ.                      | Tianhao Zhao                                                                                         | Taiyuan Univ. of Science and                           |
| Lei Song                                                                                                     | Shanghai Jiao Tong Univ.                      |                                                                                                      |                                                        |
| Huaping Liu                                                                                                  | Tsinghua Univ.                                |                                                                                                      |                                                        |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|                                                                                                                                                                           | Technology                                       | Huijun Zhao                                                                                                        | North Univ. of China                      |
| Xingjuan Cai                                                                                                                                                              | Taiyuan Univ. of Science and                     | Xiaochen Liu                                                                                                       | North Univ. of China                      |
|                                                                                                                                                                           | Technology                                       | Chong Shen                                                                                                         | North Univ. of China                      |
| 15:53-16:01                                                                                                                                                               | D2.2                                             | 16:49-16:57                                                                                                        | D2.9                                      |
| <b>302</b> Communication-efficient distributed equilibrium seekings for cluster games: A compressed gradient tracking approach                                            |                                                  | <b>527</b> A fast and accurate feature-attention-based stereo visual inertial odometry method for autonomous robot |                                           |
| Fan Li                                                                                                                                                                    | Northeastern Univ.                               | Kezhi Wang                                                                                                         | Univ. of Science and Technology of China  |
| Kunpeng Zhang                                                                                                                                                             | Northeastern Univ.                               | Leyang Wang                                                                                                        | Univ. of Science and Technology of China  |
| Lei Xu                                                                                                                                                                    | KTH Royal Institute of Technology                | Zonghai Chen                                                                                                       | Univ. of Science and Technology of China  |
| Tao Yang                                                                                                                                                                  | Northeastern Univ.                               | Jikai Wang                                                                                                         | Univ. of Science and Technology of China  |
| 16:01-16:09                                                                                                                                                               | D2.3                                             | 16:57-17:05                                                                                                        | D2.10                                     |
| <b>1461</b> A generic algorithm framework for distributed optimization over time-varying networks with communication delays and its extension to Nash equilibrium seeking |                                                  | <b>1468</b> Monte carlo pose uncertainty analysis for failure prediction in ORB-SLAM3                              |                                           |
| Jie Liu                                                                                                                                                                   | Southeast Univ.                                  | Bohuan Xue                                                                                                         | South China Normal Univ.                  |
| 16:09-16:17                                                                                                                                                               | D2.4                                             | Zihao Zhu                                                                                                          | South China Normal Univ.                  |
| <b>1227</b> LAIO: A lightweight instantaneous neural inertial odometry for real-time UAV state estimation                                                                 |                                                  | Shangqiu Shan                                                                                                      | Space Engineering Univ.                   |
| Weijie Sang                                                                                                                                                               | Beijing Information Science and Technology Univ. | Brian C.W. Kei                                                                                                     | The Hong Kong Polytechnic Univ.           |
| Zhiqiang Yan                                                                                                                                                              | Beijing Information Science and Technology Univ. | 17:05-17:13                                                                                                        | D2.11                                     |
| Chunyu Li                                                                                                                                                                 | Beijing Institute of Technology                  | <b>1504</b> SSI-PR: A selective structure injection framework for robust multi-modal place recognition             |                                           |
| Ziyang Meng                                                                                                                                                               | Tsinghua Univ.                                   | Zhiqiang Yang                                                                                                      | Zhejiang Univ. of Technology              |
| 16:17-16:25                                                                                                                                                               | D2.5                                             | Jintao Cheng                                                                                                       | Hong Kong Univ. of Science and Technology |
| <b>1261</b> Closed-form quaternion estimation for GNSS/accelerometer/magnetometer attitude determination with analytical covariance                                       |                                                  | Jiehao Luo                                                                                                         | South China Normal Univ.                  |
| Yang Liu                                                                                                                                                                  | The Hong Kong Univ. of Science and Technology    | 17:13-17:21                                                                                                        | D2.12                                     |
| Fulong Ma                                                                                                                                                                 | The Hong Kong Univ. of Science and Technology    | <b>1678</b> Lift-off spoofing detection for GNSS/5G/INS tightly-coupled systems                                    |                                           |
| Yang Yu                                                                                                                                                                   | The Hong Kong Univ. of Science and Technology    | Zihao Li                                                                                                           | Beihang Univ.                             |
| 16:25-16:33                                                                                                                                                               | D2.6                                             | Yanhong Kou                                                                                                        | Beihang Univ.                             |
| <b>1274</b> Experimental validation of analytical multi-sensor attitude estimation for fixed-wing MAVs                                                                    |                                                  | 17:21-17:29                                                                                                        | D2.13                                     |
| Yang Liu                                                                                                                                                                  | The Hong Kong Univ. of Science and Technology    | <b>760</b> A learning-based visual-inertial SLAM framework with dense bundle adjustment                            |                                           |
| Fulong Ma                                                                                                                                                                 | The Hong Kong Univ. of Science and Technology    | Weiyan Zhao                                                                                                        | Beijing Institute of Technology           |
| Yang Yu                                                                                                                                                                   | The Hong Kong Univ. of Science and Technology    | Jun Zhu                                                                                                            | Tsinghua Univ.                            |
| 16:33-16:41                                                                                                                                                               | D2.7                                             | Jiawei Zhao                                                                                                        | Xi'an Research Institute of Hi-tech       |
| <b>1342</b> Research on performance evaluation methods of multi-regional high-density and high-revisit dynamic target tracking and observation system                     |                                                  | Tao Xue                                                                                                            | Tsinghua Univ.                            |
| Rong Ma                                                                                                                                                                   | China Academy of Space Technology                | Tao Zhang                                                                                                          | Tsinghua Univ.                            |
| Qingrui Zhou                                                                                                                                                              | China Academy of Space Technology                | 17:29-17:37                                                                                                        | D2.14                                     |
| Luojia Hu                                                                                                                                                                 | China Academy of Space Technology                | <b>1408</b> 高精度位移传感电路标定用电容器                                                                                        |                                           |
| Jingdong Diao                                                                                                                                                             | China Academy of Space Technology                | Guyi Xu                                                                                                            | Tsinghua Univ.                            |
| Changhao Sun                                                                                                                                                              | China Academy of Space Technology                | Yuchi Meng                                                                                                         | Tsinghua Univ.                            |
| 16:41-16:49                                                                                                                                                               | D2.8                                             | Xiaoxia He                                                                                                         | Tsinghua Univ.                            |
| <b>381</b> 融合地平线几何约束与光流运动特性的无人机自适应强跟踪姿态估计                                                                                                                                 |                                                  | Zewen Wan                                                                                                          | Beijing Jiaotong Univ.                    |
| Shan Li                                                                                                                                                                   | North Univ. of China                             | Ziao Zhang                                                                                                         | Beijing Jiaotong Univ.                    |
| Xindong Wu                                                                                                                                                                | North Univ. of China                             | Shuotian Shi                                                                                                       | Beijing Jiaotong Univ.                    |
|                                                                                                                                                                           |                                                  | Ze Liu                                                                                                             | Beijing Jiaotong Univ.                    |
|                                                                                                                                                                           |                                                  | 17:37-17:45                                                                                                        | D2.15                                     |
|                                                                                                                                                                           |                                                  | <b>1616</b> Adaptive nonlinear guidance law for high speed vehicles following planned waypoints                    |                                           |
|                                                                                                                                                                           |                                                  | Jiayi Yuan                                                                                                         | Fudan Univ.                               |
|                                                                                                                                                                           |                                                  | Jianliang Ai                                                                                                       | Fudan Univ.                               |
|                                                                                                                                                                           |                                                  | <b>D3</b> 2nd Floor Lipu Room                                                                                      |                                           |
|                                                                                                                                                                           |                                                  | <b>Aerospace GNC</b> 2层 荔浦厅                                                                                        |                                           |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--|
| Chairs: Enjiao Zhao                                                                                                                                    |                                                     |  |
| 15:45-15:53                                                                                                                                            | D3.1                                                |  |
| <b>435</b> 基于双站立体几何与 SRCKF 的地月空间非合作目标短弧初始确定方法研究                                                                                                        |                                                     |  |
| Yichen Yang                                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics       |  |
| Youtao Gao                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics       |  |
| 15:53-16:01                                                                                                                                            | D3.2                                                |  |
| <b>1106</b> Propellant-based center-of-mass trimming strategy for hybrid orbit transfer: minimizing coupled disturbances under engineering constraints |                                                     |  |
| Tianyao Zhang                                                                                                                                          | China Academy of Space Technology                   |  |
| Qingjun Zhang                                                                                                                                          | China Academy of Space Technology                   |  |
| Jie Liu                                                                                                                                                | China Academy of Space Technology                   |  |
| Liangbo Zhao                                                                                                                                           | China Academy of Space Technology                   |  |
| Pengfei Xiao                                                                                                                                           | China Academy of Space Technology                   |  |
| Yuanqing Zhao                                                                                                                                          | China Academy of Space Technology                   |  |
| Chongzhou Yu                                                                                                                                           | China Academy of Space Technology                   |  |
| Ruiqi Sun                                                                                                                                              | China Academy of Space Technology                   |  |
| Xiaorui Li                                                                                                                                             | China Academy of Space Technology                   |  |
| Hong Wang                                                                                                                                              | Beijing Institute of Control Engineering            |  |
| Jin Xiao                                                                                                                                               | Beihang Univ.                                       |  |
| 16:01-16:09                                                                                                                                            | D3.3                                                |  |
| <b>750</b> Incremental composition of local CBFs for safe spacecraft navigation in unknown environments                                                |                                                     |  |
| Xian Li                                                                                                                                                | Shanghai Univ.                                      |  |
| Zhenning Zhang                                                                                                                                         | Shanghai Univ.                                      |  |
| Wenbo Li                                                                                                                                               | Beijing Institute of Control Engineering            |  |
| Liang Xu                                                                                                                                               | Shanghai Univ.                                      |  |
| 16:09-16:17                                                                                                                                            | D3.4                                                |  |
| <b>883</b> An improved YOLOv11-based small target detection algorithm for UAV forest fire detection                                                    |                                                     |  |
| Siyu Wang                                                                                                                                              | Xi'an Univ. of Technology                           |  |
| Lingxia Mu                                                                                                                                             | Xi'an Univ. of Technology                           |  |
| Youmin Zhang                                                                                                                                           | Concordia Univ.                                     |  |
| Nan Feng                                                                                                                                               | Univ. of Science and Technology Beijing             |  |
| Xianghong Xue                                                                                                                                          | Xi'an Univ. of Technology                           |  |
| 16:17-16:25                                                                                                                                            | D3.5                                                |  |
| <b>1380</b> 面向区域观测任务的多飞行器协同规划强化学习方法                                                                                                                    |                                                     |  |
| Haowen Tian                                                                                                                                            | Beihang Univ.                                       |  |
| Hao Liu                                                                                                                                                | Beihang Univ.                                       |  |
| Yuheng Sun                                                                                                                                             | Beihang Univ.                                       |  |
| Wenbing Chen                                                                                                                                           | AVIC Chengdu Aircraft Design and Research Institute |  |
| 16:25-16:33                                                                                                                                            | D3.6                                                |  |
| <b>250</b> Research on path planning for unmanned surface vehicles in narrow waterways based on improved PPO algorithm                                 |                                                     |  |
| Xinhao Bao                                                                                                                                             | Harbin Engineering Univ.                            |  |
| Enjiao Zhao                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Yaping Du                                                                                                                                              | No.703 Research Institute of CSSC                   |  |
| Xu Su                                                                                                                                                  | No.703 Research Institute of CSSC                   |  |
| 16:33-16:41                                                                                                                                            | D3.7                                                |  |
| <b>252</b> An extended NMPC framework with exponential barrier and terminal safety shielding for UUV obstacle avoidance                                |                                                     |  |
| Feifan Feng                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Enjiao Zhao                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Yerui Wang                                                                                                                                             | Harbin Engineering Univ.                            |  |
| Xu Su                                                                                                                                                  | No.703 Research Institute of CSSC                   |  |
| 16:41-16:49                                                                                                                                            | D3.8                                                |  |
| <b>310</b> The environmental safety risk assessment method considering weight optimization for ocean passenger ships                                   |                                                     |  |
| Shibo Yin                                                                                                                                              | CSSC Marine Technology Co., Ltd                     |  |
| Qiming Zhang                                                                                                                                           | CSSC Marine Technology Co., Ltd                     |  |
| Jun Shi                                                                                                                                                | CSSC Marine Technology Co., Ltd                     |  |
| 16:49-16:57                                                                                                                                            | D3.9                                                |  |
| <b>546</b> Voronoi skeleton-based path planning with topology switching for unmanned surface vehicles                                                  |                                                     |  |
| Runtong Kou                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Enjiao Zhao                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Yuxin Zhao                                                                                                                                             | Harbin Engineering Univ.                            |  |
| 16:57-17:05                                                                                                                                            | D3.10                                               |  |
| <b>967</b> AUV path planning with cross-attention and teacher-guided deep reinforcement learning                                                       |                                                     |  |
| Lupan Zhang                                                                                                                                            | Harbin Engineering Univ.                            |  |
| 17:05-17:13                                                                                                                                            | D3.11                                               |  |
| <b>596</b> Access path planning for target survey-line access of a survey vessel under ocean current effects                                           |                                                     |  |
| Yifan Fu                                                                                                                                               | Harbin Engineering Univ.                            |  |
| Enjiao Zhao                                                                                                                                            | Harbin Engineering Univ.                            |  |
| Yerui Wang                                                                                                                                             | Harbin Engineering Univ.                            |  |
| 17:13-17:21                                                                                                                                            | D3.12                                               |  |
| <b>1264</b> Adaptive LQ control for the vertical-plane motion of a variable-buoyancy underwater vehicle                                                |                                                     |  |
| Pengfei Cai                                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics       |  |
| Liyan Wen                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics       |  |
| Bin Jiang                                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics       |  |
| Yajie Ma                                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics       |  |
| 17:21-17:29                                                                                                                                            | D3.13                                               |  |
| <b>430</b> Robust formation tracking control of AUVs subject to lumped disturbances via distributed sliding mode tube-based MPC                        |                                                     |  |
| HuangZhi Yu                                                                                                                                            | National Univ. of Defense Technology                |  |
| Bo Wang                                                                                                                                                | National Univ. of Defense Technology                |  |
| Yifeng Niu                                                                                                                                             | National Univ. of Defense Technology                |  |
| 17:29-17:37                                                                                                                                            | D3.14                                               |  |
| <b>1579</b> Variance-aware fusion guidance with motion prediction for maneuvering target interception                                                  |                                                     |  |
| Hao Wu                                                                                                                                                 | Harbin Institute of Technology                      |  |
| XiaoJun Ban                                                                                                                                            | Harbin Institute of Technology                      |  |
| Di Zhou                                                                                                                                                | Harbin Institute of Technology                      |  |
| 17:37-17:45                                                                                                                                            | D3.15                                               |  |
| <b>937</b> Cooperative localization and cooperative guidance based on leader-follower framework with intermittent measurements                         |                                                     |  |
| Yunji Jiang                                                                                                                                            | Beijing Institute of Technology                     |  |
| Junhui Liu                                                                                                                                             | Beijing institute of technology                     |  |
| Shen Kang                                                                                                                                              | Beijing Galactic Energy Space Technology Co., Ltd.  |  |
| jiayuan shan                                                                                                                                           | Beijing Institute of Technology                     |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Yankai Wang                                                                                                                                        | Beijing institute of technology                | Xiaoxuan Gao                                                                                                                    | Beihang Univ.                                          |
| <b>D4</b>                                                                                                                                          | <b>2nd Floor Nanning Room1</b>                 | Yongqiong Yuan                                                                                                                  | China Electronics Technology                           |
| <b>Cooperative GNC</b>                                                                                                                             | <b>2 层 南宁厅 1</b>                               |                                                                                                                                 | Group Corporation                                      |
| Chairs: Guofei Li                                                                                                                                  |                                                | Yang Yuan                                                                                                                       | Beihang Univ.                                          |
| 15:45-15:53                                                                                                                                        | D4.1                                           | Haibin Duan                                                                                                                     | Beihang Univ.                                          |
| <b>1291</b> 多飞行器多目标动态分配协同制导方法                                                                                                                      |                                                | 16:41-16:49                                                                                                                     | D4.8                                                   |
| Yanan Chang                                                                                                                                        | Northwestern Polytechnical Univ.               | <b>1062</b> <i>An MPSP-based fixed-wing UAV formation assembly guidance method</i>                                              |                                                        |
| Qingpu Tang                                                                                                                                        | Northwestern Polytechnical Univ.               | Huitao Yang                                                                                                                     | Beijing Institute of Technology                        |
| Jiyu Xia                                                                                                                                           | Beijing Institute of Electronic Engineering    | Qiuqiu Wen                                                                                                                      | Beijing Institute of Technology                        |
| Guofei Li                                                                                                                                          | Northwestern Polytechnical Univ.               | 16:49-16:57                                                                                                                     | D4.9                                                   |
| 15:53-16:01                                                                                                                                        | D4.2                                           | <b>1312</b> <i>Robust control for quadrotor UAV precise formation based on virtual control network and ADRC</i>                 |                                                        |
| <b>1162</b> 基于改进量子粒子群算法的中继卫星任务调度                                                                                                                   |                                                | Jie Li                                                                                                                          | Beijing Institute of Technology                        |
| Chuchu Han                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics  | Yuanqing Xia                                                                                                                    | Beijing Institute of Technology                        |
| Yajie Ma                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics  | 16:57-17:05                                                                                                                     | D4.10                                                  |
| Bin Jiang                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics  | <b>1404</b> <i>Distributed linear time-varying formation maneuvering for networked UAV systems with input saturation</i>        |                                                        |
| Wenxuan Wang                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics  | Yulin Kang                                                                                                                      | Univ. of Electronic Science and Technology of China    |
| 16:01-16:09                                                                                                                                        | D4.3                                           | Jinghan Fu                                                                                                                      | Univ. of Electronic Science and Technology of China    |
| <b>1295</b> <i>Distributed cooperative task allocation for heterogeneous UAV swarms under complex constraints: An OCF game approach</i>            |                                                | Mengji Shi                                                                                                                      | Univ. of Electronic Science and Technology of China    |
| Haofan Wang                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics  | Weihao Li                                                                                                                       | Univ. of Electronic Science and Technology of China    |
| Yajie Ma                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics. | Yu Wu                                                                                                                           | Univ. of Electronic Science and Technology of China    |
| Bin Jiang                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics. | Kaiyu Qin                                                                                                                       | Univ. of Electronic Science and Technology of China    |
| Hang Yu                                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics. | 17:05-17:13                                                                                                                     | D4.11                                                  |
| 16:09-16:17                                                                                                                                        | D4.4                                           | <b>242</b> <i>Online affine formation parameter planning for robot swarms in underground tunnel environments</i>                |                                                        |
| <b>814</b> <i>DMPC based on koopman operator for multi-UGV collision avoidance</i>                                                                 |                                                | XiaoSheng Sun                                                                                                                   | Nanjing Univ. of Aeronautics and Astronautics          |
| Chenhao Shao                                                                                                                                       | Sichuan Univ.                                  | Kenan Yong                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics          |
| Bin Li                                                                                                                                             | Sichuan Univ.                                  | Mou Chen                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics          |
| 16:17-16:25                                                                                                                                        | D4.5                                           | Shuyi Shao                                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics          |
| <b>522</b> <i>Uncertainty-aware distributed formation control for multi-UAV systems via robust control barrier functions and visual estimation</i> |                                                | 17:13-17:21                                                                                                                     | D4.12                                                  |
| Zhaobang Li                                                                                                                                        | National Univ. of Defense Technology           | <b>554</b> <i>LLM-guided multi-robots formation navigation with predictive safety filtering via sampling-based optimization</i> |                                                        |
| Ruixiang He                                                                                                                                        | National Univ. of Defense Technology           | Boxiang Li                                                                                                                      | Beihang Univ.                                          |
| Yang Li                                                                                                                                            | National Univ. of Defence Technology           | Yuwei Zhang                                                                                                                     | Beihang Univ.                                          |
| Yike Xiao                                                                                                                                          | National Univ. of Defense Technology           | Xingjian Wang                                                                                                                   | Beihang Univ.                                          |
| 16:25-16:33                                                                                                                                        | D4.6                                           | Shaoping Wang                                                                                                                   | Beihang Univ.                                          |
| <b>702</b> <i>A real-time obstacle avoidance system for synergistic drone swarm in dense environments</i>                                          |                                                | Gavrilov Alexander I.                                                                                                           | Bauman Moscow State Technical Univ.                    |
| Hao Zhang                                                                                                                                          | Beijing Institute of Technology                | Xi Wang                                                                                                                         | Suzhou Tiantong Weishi Electronic Technology Co., Ltd. |
| Zihao Wei                                                                                                                                          | Beijing Institute of Technology                | 17:21-17:29                                                                                                                     | D4.13                                                  |
| Hang Xiao                                                                                                                                          | Beijing Institute of Technology                | <b>774</b> <i>Analysis of key constraints for automatic formation control in large-scale aerial delivery scenarios</i>          |                                                        |
| Kai Shen                                                                                                                                           | Beijing Institute of Technology                | Song Wang                                                                                                                       | AVIC Beijing Keeven Aviation Instrument Co.Ltd.        |
| Xuan Xiao                                                                                                                                          | Beijing Institute of Technology                |                                                                                                                                 |                                                        |
| 16:33-16:41                                                                                                                                        | D4.7                                           |                                                                                                                                 |                                                        |
| <b>471</b> <i>A pigeon-inspired optimization method for UAV formation transformation based on reinforcement learning algorithm</i>                 |                                                |                                                                                                                                 |                                                        |

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|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Jiawei Xu                                                                                                                         | AVIC Beijing Keeven Aviation Instrument Co.Ltd.     | Yanpeng Jia                                                                                                                          | Shenyang Institute of Automation          |
| Mengfan Liu                                                                                                                       | AVIC Beijing Keeven Aviation Instrument Co.Ltd.     | Xianyuan Zhu                                                                                                                         | Shenyang Univ. of Chemical Technology     |
| Yang Liu                                                                                                                          | AVIC Beijing Keeven Aviation Instrument Co.Ltd.     | 16:17-16:25                                                                                                                          | D5.5                                      |
| 17:29-17:37                                                                                                                       | D4.14                                               | <b>1493</b> <i>An energy-aware multi-agent solution for coverage in complex irregular regions</i>                                    |                                           |
| <b>1535</b> <i>Reform practice of graduate experimental course in detection technology aimed at cultivating research literacy</i> |                                                     | Mingyue Tu                                                                                                                           | Southeast Univ.                           |
| Gang Wang                                                                                                                         | Beijing Univ. of Posts and Telecommunications       | He Wang                                                                                                                              | Southeast Univ.                           |
| Haixia Zhang                                                                                                                      | Beijing Univ. of Posts and Telecommunications       | Wenwu Yu                                                                                                                             | Southeast Univ.                           |
| 17:37-17:45                                                                                                                       | D4.15                                               | 16:25-16:33                                                                                                                          | D5.6                                      |
| <b>579</b> <i>Low-altitude route network planning methods: a comprehensive survey</i>                                             |                                                     | <b>1221</b> <i>Design and implementation of integrated digital-physical visual flight test platform for unmanned aerial vehicles</i> |                                           |
| Duo Qi                                                                                                                            | Air Force Engineering Univ.                         | Yuze Zhou                                                                                                                            | Beijing Institute of Technology           |
| Beipo Su                                                                                                                          | Air Force Engineering Univ.                         | Junzhi Li                                                                                                                            | Beijing Institute of Technology           |
| Jiangbin Dai                                                                                                                      | Air Force Engineering Univ.                         | Yang Song                                                                                                                            | Beijing Institute of Technology           |
| Xiaoyue Ren                                                                                                                       | Air Force Engineering Univ.                         | Jingliang Sun                                                                                                                        | Beijing Institute of Technology           |
| Xingyu He                                                                                                                         | Air Force Engineering Univ.                         | Teng Long                                                                                                                            | Beijing Institute of Technology           |
| <b>D5</b>                                                                                                                         | <b>2nd Floor Nanning Room2</b>                      | 16:33-16:41                                                                                                                          | D5.7                                      |
| <b>Smart GNC</b>                                                                                                                  | <b>2 层 南宁厅 2</b>                                    | <b>909</b> <i>Continuous dual-ball throwing and catching via reinforcement learning with fine-grained rewards</i>                    |                                           |
| Chairs: Wenwu Zhu                                                                                                                 |                                                     | Jieqian Sun                                                                                                                          | Tsinghua Univ.                            |
| 15:45-15:53                                                                                                                       | D5.1                                                | Fengbo Lan                                                                                                                           | Tsinghua Univ.                            |
| <b>1066</b> <i>Multi-agent large language models for connectivity restoration in damaged graphs</i>                               |                                                     | Hengxuan Xu                                                                                                                          | Tsinghua Univ.                            |
| Ruilin Wang                                                                                                                       | Univ. of Chinese Academy of Science                 | Ziye Zhang                                                                                                                           | Tsinghua Univ.                            |
| Xiaolin Ai                                                                                                                        | Univ. of Chinese Academy of Science                 | Tao Xue                                                                                                                              | Tsinghua Univ.                            |
| Yang Xu                                                                                                                           | Beihang Univ.                                       | Tao Zhang                                                                                                                            | Tsinghua Univ.                            |
| 15:53-16:01                                                                                                                       | D5.2                                                | 16:41-16:49                                                                                                                          | D5.8                                      |
| <b>1731</b> <i>Research on a hybrid autonomous decision-making method for UAVs based on behavior trees</i>                        |                                                     | <b>999</b> <i>Meta-reinforcement learning with unified rewards for versatile multi-tool mobile manipulation</i>                      |                                           |
| Chunfeng Luo                                                                                                                      | AVIC Chengdu Aircraft Design and Research Institute | Fengbo Lan                                                                                                                           | Tsinghua Univ.                            |
| TianCai Wan                                                                                                                       | AVIC Chengdu Aircraft Design and Research Institute | Ziye Zhang                                                                                                                           | Tsinghua Univ.                            |
| Hui Li                                                                                                                            | AVIC Chengdu Aircraft Design and Research Institute | Hengxuan Xu                                                                                                                          | Tsinghua Univ.                            |
| Tao Wang                                                                                                                          | AVIC Chengdu Aircraft Design and Research Institute | Jieqian Sun                                                                                                                          | Tsinghua Univ.                            |
| Ke Shi                                                                                                                            | AVIC Chengdu Aircraft Design and Research Institute | Tao Xue                                                                                                                              | Tsinghua Univ.                            |
| 16:01-16:09                                                                                                                       | D5.3                                                | Tao Zhang                                                                                                                            | Tsinghua Univ.                            |
| <b>997</b> <i>OSM-based robot path planning with global right-side correction and local efficient optimization</i>                |                                                     | 16:49-16:57                                                                                                                          | D5.9                                      |
| Chenxi Shao                                                                                                                       | Northwestern Polytechnical Univ.                    | <b>241</b> <i>Safety-constrained path planning for UAV inspection in a substation-related transmission tower scenario</i>            |                                           |
| Yu Fang                                                                                                                           | Northwestern Polytechnical Univ.                    | Qinan Zhang                                                                                                                          | Univ. of Science and Technology of China  |
| Anmin Huang                                                                                                                       | Northwestern Polytechnical Univ.                    | Hongbing Luo                                                                                                                         | Univ. of Science and Technology of China  |
| Junhua Gou                                                                                                                        | Northwestern Polytechnical Univ.                    | Wen Wang                                                                                                                             | State Grid Anhui Electric Power Co., Ltd. |
| Renyuan Zhang                                                                                                                     | Northwestern Polytechnical Univ.                    | Wenjun Lv                                                                                                                            | Univ. of Science and Technology of China  |
| 16:09-16:17                                                                                                                       | D5.4                                                | Jian Di                                                                                                                              | Univ. of Science and Technology of China  |
| <b>1456</b> <i>DE-planner: an efficient end-to-end dynamic framework for UAV navigation</i>                                       |                                                     | Yu Kang                                                                                                                              | Univ. of Science and Technology of China  |
| Jiawei Yao                                                                                                                        | Shenyang Univ. of Technology                        | 16:57-17:05                                                                                                                          | D5.10                                     |
| Ting Wang                                                                                                                         | Shenyang Institute of Automation                    | <b>953</b> <i>LSTM-MPC: physically feasible and interpretable trajectory prediction</i>                                              |                                           |
| Fengkui Cao                                                                                                                       | Shenyang Institute of Automation                    | Jinwei Liu                                                                                                                           | Univ. of Science and Technology of China  |
|                                                                                                                                   |                                                     | Pengfei Li                                                                                                                           | Univ. of Science and Technology of China  |
|                                                                                                                                   |                                                     | Qianqian Zhang                                                                                                                       | Anhui Univ.                               |

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|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Yunbo Zhao                                                                                                                                  | Univ. of Science and Technology of China               | Bowei Wang                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute |
| Yu Kang                                                                                                                                     | Univ. of Science and Technology of China               | Xiaole Xu                                                                                                         | AVIC Xi'an Flight Automatic Control Research Institute |
| 17:05-17:13                                                                                                                                 | D5.11                                                  | Xiwen Yao                                                                                                         | Northwestern Polytechnical Univ.                       |
| 391 Task planning and decision-making for domestic service robots via the fusion method of linear temporal logic and reinforcement learning |                                                        |                                                                                                                   |                                                        |
| Hailong Xu                                                                                                                                  | Hefei Univ. of Technology                              | Keyan Hu                                                                                                          | Northwestern Polytechnical Univ.                       |
| Yongzheng Cong                                                                                                                              | Hefei Univ. of Technology                              | Jing Ni                                                                                                           | Aviation industry Chengdu aircraft design institute    |
| Haibo Du                                                                                                                                    | Hefei Univ. of Technology                              | Wanhan Xue                                                                                                        | Northwestern Polytechnical Univ.                       |
| Lanlin Yu                                                                                                                                   | Hefei Univ. of Technology                              | Boyang Gao                                                                                                        | Northwestern Polytechnical Univ.                       |
| Wenwu Zhu                                                                                                                                   | Hefei Univ. of Technology                              | Xiaoxiong Liu                                                                                                     | Northwestern Polytechnical Univ.                       |
| 17:13-17:21                                                                                                                                 | D5.12                                                  | 16:01-16:09                                                                                                       | D6.3                                                   |
| 549 Constrained iterative LQR trajectory planning based on homotopy class constraints and higher-order dynamic optimization                 |                                                        |                                                                                                                   |                                                        |
| Junquan Hong                                                                                                                                | Hefei Univ. of Technology                              | Janman Guo                                                                                                        | Tiangong Univ.                                         |
| Haibo Du                                                                                                                                    | Hefei Univ. of Technology                              | Liya Li                                                                                                           | Harbin Engineering Univ.                               |
| Lanlin Yu                                                                                                                                   | Hefei Univ. of Technology                              | Hengbo Ren                                                                                                        | Eastcompeace Technology Co., Ltd.                      |
| Wenwu Zhu                                                                                                                                   | Hefei Univ. of Technology                              | Shuangshi Zhao                                                                                                    | Tianjin Keyvia Electric Co., Ltd                       |
| Xunhong Sun                                                                                                                                 | Hefei Univ. of Technology                              | 16:09-16:17                                                                                                       | D6.4                                                   |
| 17:21-17:29                                                                                                                                 | D5.13                                                  | 847 Research on urban air-ground collaborative unmanned delivery algorithms based on multi-objective optimization |                                                        |
| Haoran Zhang                                                                                                                                | Hefei Univ. of Technology                              | Changyin Dong                                                                                                     | Northwestern Polytechnical Univ.                       |
| Haibo Du                                                                                                                                    | Hefei Univ. of Technology                              | Wentao He                                                                                                         | Northwestern Polytechnical Univ.                       |
| Xunhong Sun                                                                                                                                 | Hefei Univ. of Technology                              | 16:17-16:25                                                                                                       | D6.5                                                   |
| xiaochuan li                                                                                                                                | Hefei Univ. of Technology                              | 866 Multi-node random search with adaptive pheromone for 3D cooperative target search of multi-UAV systems        |                                                        |
| Wenwu Zhu                                                                                                                                   | Hefei Univ. of Technology                              | Peng Xiao                                                                                                         | Northwestern Polytechnical Univ.                       |
| Lanlin Yu                                                                                                                                   | Hefei Univ. of Technology                              | Yu Pan                                                                                                            | Northwestern Polytechnical Univ.                       |
| 17:29-17:37                                                                                                                                 | D5.14                                                  | Yanning Wang                                                                                                      | Northwestern Polytechnical Univ.                       |
| 452 Research on simplified algorithm of UAS geofence based on security detection                                                            |                                                        |                                                                                                                   |                                                        |
| Shidai Qiu                                                                                                                                  | Air Force Engineering Univ.                            | Changyin Dong                                                                                                     | Northwestern Polytechnical Univ.                       |
| Qixi Fu                                                                                                                                     | Air Force Engineering Univ.                            | 16:25-16:33                                                                                                       | D6.6                                                   |
| Duo Qi                                                                                                                                      | Air Force Engineering Univ.                            | 874 Feasible-corridor-based offline planning for tethered multi-UAV payload transportation                        |                                                        |
| Yajun Zhang                                                                                                                                 | Unit 93685 of PLA                                      | Yu Pan                                                                                                            | Northwestern Polytechnical Univ.                       |
| 17:37-17:45                                                                                                                                 | D5.15                                                  | Li Ni                                                                                                             | Northwestern Polytechnical Univ.                       |
| 1199 Multi-objective 3D UAV path planning method with robust threat evaluation and risk-adaptive parameter regulation                       |                                                        |                                                                                                                   |                                                        |
| Chenyang Sun                                                                                                                                | Air Force Engineering Univ.                            | Peng Xiao                                                                                                         | Northwestern Polytechnical Univ.                       |
| Xingyu He                                                                                                                                   | Air Force Engineering Univ.                            | Fengcheng An                                                                                                      | Northwestern Polytechnical Univ.                       |
| Duo Qi                                                                                                                                      | Air Force Engineering Univ.                            | Baokun Sun                                                                                                        | Northwestern Polytechnical Univ.                       |
| Xiaoyue Ren                                                                                                                                 | Air Force Engineering Univ.                            | 16:33-16:41                                                                                                       | D6.7                                                   |
| D6 2nd Floor Nanning Room3                                                                                                                  |                                                        |                                                                                                                   |                                                        |
| Unmanned GNC 2 层 南宁厅 3                                                                                                                      |                                                        |                                                                                                                   |                                                        |
| Chairs: Xiaoxuan Gao                                                                                                                        |                                                        |                                                                                                                   |                                                        |
| 15:45-15:53                                                                                                                                 | D6.1                                                   | 956 PINN-driven energy-aware 3D trajectory optimization for quadrotor UAVs                                        |                                                        |
| 1152 Aerial target reconnaissance and localization algorithm based on twin rendering matching                                               |                                                        |                                                                                                                   |                                                        |
| Weitong Liu                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute | WeiJia Luo                                                                                                        | Northwestern Polytechnical Univ.                       |
| Shaolong Song                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute | Changyin Dong                                                                                                     | Northwestern Polytechnical Univ.                       |
| YunLong Fan                                                                                                                                 | AVIC Xi'an Flight Automatic Control Research Institute | KangXi Shi                                                                                                        | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | Yu Pan                                                                                                            | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | Yanning Wang                                                                                                      | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | Fengcheng An                                                                                                      | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | 16:41-16:49                                                                                                       | D6.8                                                   |
| 964 城市跨域协同作战指挥控制架构建模综述与框架研究                                                                                                                 |                                                        |                                                                                                                   |                                                        |
|                                                                                                                                             |                                                        | Kunlin He                                                                                                         | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | Yunshan Deng                                                                                                      | Beijing Institute of Technology                        |
|                                                                                                                                             |                                                        | Yu Pan                                                                                                            | Northwestern Polytechnical Univ.                       |
|                                                                                                                                             |                                                        | 16:49-16:57                                                                                                       | D6.9                                                   |
| 1027 A boundary regularization method for multi-UAV coverage                                                                                |                                                        |                                                                                                                   |                                                        |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <i>planning</i>                                                                                                                                                         |                                       | Shady Sadek                                                                                                                                                                        | International Academy for Engineering and Media Science                                                  |
| Yaning Wang                                                                                                                                                             | Northwestern Polytechnical Univ.      | 15:53-16:01                                                                                                                                                                        | D7.2                                                                                                     |
| Li Ni                                                                                                                                                                   | Northwestern Polytechnical Univ.      | <b>1533</b> <i>KGLM-HCC: Knowledge-guided lightweight modeling for noninvasive grading of hepatocellular carcinoma</i>                                                             |                                                                                                          |
| Peng Xiao                                                                                                                                                               | Northwestern Polytechnical Univ.      | Chao Ye                                                                                                                                                                            | Guilin Univ. of Electronic Technology                                                                    |
| Fengcheng An                                                                                                                                                            | Northwestern Polytechnical Univ.      | Bao Feng                                                                                                                                                                           | Guilin Univ. of Aerospace Technology                                                                     |
| WeiJia Luo                                                                                                                                                              | Northwestern Polytechnical Univ.      | Yu Liu                                                                                                                                                                             | Guilin Univ. of Aerospace Technology                                                                     |
| 16:57-17:05                                                                                                                                                             | D6.10                                 | Jin Cui                                                                                                                                                                            | Jiangmen Central Hospital                                                                                |
| <b>1040</b> <i>CSAP: A spatially-aware and speed-adaptive trajectory planning framework for autonomous UAV</i>                                                          |                                       | Zhixin Luo                                                                                                                                                                         | Jiangmen Central Hospital                                                                                |
| Fengcheng An                                                                                                                                                            | Northwestern Polytechnical Univ.      | Fan Lin                                                                                                                                                                            | The First Affiliated Hospital of Shenzhen Univ., Health Science Center, ShenzhenSecond People's Hospital |
| Li Ni                                                                                                                                                                   | Northwestern Polytechnical Univ.      | Enming Cui                                                                                                                                                                         | Jiangmen Central Hospital                                                                                |
| BenBo Zhu                                                                                                                                                               | Northwestern Polytechnical Univ.      | 16:01-16:09                                                                                                                                                                        | D7.3                                                                                                     |
| Yaning Wang                                                                                                                                                             | Northwestern Polytechnical Univ.      | <b>1560</b> <i>Cross-modal attention interaction fusion framework for multimodal representation learning</i>                                                                       |                                                                                                          |
| Yu Pan                                                                                                                                                                  | Northwestern Polytechnical Univ.      | Siyun Wang                                                                                                                                                                         | Guangxi Univ. of Science and Technology                                                                  |
| Peng Xiao                                                                                                                                                               | Northwestern Polytechnical Univ.      | Xisheng Dai                                                                                                                                                                        | Guangxi Univ. of Science and Technology                                                                  |
| WeiJia Luo                                                                                                                                                              | Northwestern Polytechnical Univ.      | Jin Cui                                                                                                                                                                            | Jiangmen Central Hospital                                                                                |
| 17:05-17:13                                                                                                                                                             | D6.11                                 | Bao Feng                                                                                                                                                                           | Guilin Univ. of Aerospace Technology                                                                     |
| <b>1043</b> <i>Cooperative guidance with impact angle and time constraints for multiple UAVs</i>                                                                        |                                       | Enming Cui                                                                                                                                                                         | Jiangmen Central Hospital                                                                                |
| Jiashuo Liang                                                                                                                                                           | Northwestern Polytechnical Univ.      | 16:09-16:17                                                                                                                                                                        | D7.4                                                                                                     |
| Jianghang Ge                                                                                                                                                            | Northwestern Polytechnical Univ.      | <b>1564</b> <i>Advancements in experimental paradigms for EEG-based intelligent emotion perception: A review</i>                                                                   |                                                                                                          |
| Ban Wang                                                                                                                                                                | Northwestern Polytechnical Univ.      | Jin Feng                                                                                                                                                                           | Guilin Normal College                                                                                    |
| 17:13-17:21                                                                                                                                                             | D6.12                                 | Jing He                                                                                                                                                                            | Guilin Univ. of Aerospace Technology                                                                     |
| <b>1180</b> <i>Dual-band passive perception for UAV navigation in dark and smoky environments</i>                                                                       |                                       | Junwei Huang                                                                                                                                                                       | Guilin Normal College                                                                                    |
| Shurui Dong                                                                                                                                                             | Northwestern Polytechnical Univ.      | Yunde Li                                                                                                                                                                           | Guilin Univ. of Aerospace Technology                                                                     |
| Ni Li                                                                                                                                                                   | Northwestern Polytechnical Univ.      | Chengliang Jiang                                                                                                                                                                   | Guilin Univ. of Aerospace Technology                                                                     |
| 17:21-17:29                                                                                                                                                             | D6.13                                 | Bao Feng                                                                                                                                                                           | Guilin Univ. of Aerospace Technology                                                                     |
| <b>1300</b> <i>A cognitive state-driven closed-loop adaptive decision-making framework for MUM-T systems</i>                                                            |                                       | 16:17-16:25                                                                                                                                                                        | D7.5                                                                                                     |
| Kang Xi Shi                                                                                                                                                             | Northwestern Polytechnical Univ.      | <b>1648</b> <i>Ce-doped Sr<sub>0.5</sub>Ba<sub>0.5</sub>Fe<sub>12</sub>O<sub>19</sub> hexaferrites with tailored electromagnetic parameters for broadband microwave absorption</i> |                                                                                                          |
| Yunshan Deng                                                                                                                                                            | Beijing Institute of Technology       | Shunkang Pan                                                                                                                                                                       | Guilin Univ. of Aerospace Technology                                                                     |
| WeiJia Luo                                                                                                                                                              | Northwestern Polytechnical Univ.      | Xing Liu                                                                                                                                                                           | Hezhou Univ.                                                                                             |
| 17:29-17:37                                                                                                                                                             | D6.14                                 | Lichun Cheng                                                                                                                                                                       | Guilin Univ. of Electronic Technology                                                                    |
| <b>1414</b> <i>面向对地观测的平流层飞艇集群部署研究</i>                                                                                                                                   |                                       | Shanlin Sun                                                                                                                                                                        | Guilin Univ. of Aerospace Technology                                                                     |
| Minyu Liu                                                                                                                                                               | National Univ. of Defense Technology  | 16:25-16:33                                                                                                                                                                        | D7.6                                                                                                     |
| Xiaolong Deng                                                                                                                                                           | National Univ. of Defense Technology  | <b>1718</b> <i>Bidirectional mutual-guided fusion of CT-pathology multi-source information for prognosis prediction in clear cell renal cell carcinoma</i>                         |                                                                                                          |
| Zhenyu Ma                                                                                                                                                               | National Univ. of Defense Technology  | Zhaole Yu                                                                                                                                                                          | Guilin Univ. of Aerospace Technology                                                                     |
| Xixiang Yang                                                                                                                                                            | National Univ. of Defense Technology  | Changyi Ma                                                                                                                                                                         | Jiangmen Central Hospital                                                                                |
| 17:37-17:45                                                                                                                                                             | D6.15                                 | Bao Feng                                                                                                                                                                           | Guilin Univ. of Aerospace Technology                                                                     |
| <b>1431</b> <i>利用可变风场的推进受限平流层浮空器导航策略</i>                                                                                                                                |                                       | Jin Cui                                                                                                                                                                            | Jiangmen Central Hospital                                                                                |
| Yuan Long                                                                                                                                                               | National Univ. of Defense Technology  | Shike Long                                                                                                                                                                         | Guangxi Key Laboratory of Low-Altitude Unmanned Autonomous Systems                                       |
| Xiaolong Deng                                                                                                                                                           | National Univ. of Defense Technology  | Yan Lei                                                                                                                                                                            | Jiangmen Central Hospital                                                                                |
| Xixiang Yang                                                                                                                                                            | National Univ. of Defense Technology  | Enming Cui                                                                                                                                                                         | Jiangmen Central Hospital                                                                                |
| Fangchao Bai                                                                                                                                                            | National Univ. of Defense Technology  | 16:33-16:41                                                                                                                                                                        | D7.7                                                                                                     |
| Minyu Liu                                                                                                                                                               | National Univ. of Defense Technology  | <b>354</b> <i>Flow field simulation and analysis of electrochemical</i>                                                                                                            |                                                                                                          |
| <b>D7</b> <b>2nd Floor Longsheng Room</b>                                                                                                                               |                                       |                                                                                                                                                                                    |                                                                                                          |
| <b>Pattern GNC</b> <b>2 层 龙胜厅</b>                                                                                                                                       |                                       |                                                                                                                                                                                    |                                                                                                          |
| Chairs: Yongjun Wang                                                                                                                                                    |                                       |                                                                                                                                                                                    |                                                                                                          |
| 15:45-15:53                                                                                                                                                             | D7.1                                  |                                                                                                                                                                                    |                                                                                                          |
| <b>1527</b> <i>Comparative analysis and design evolution of magnetic-integrated LCL-based filters for high-frequency harmonic suppression in avionics power systems</i> |                                       |                                                                                                                                                                                    |                                                                                                          |
| Maged Al-Barashi                                                                                                                                                        | Guilin Univ. of Aerospace Technology  |                                                                                                                                                                                    |                                                                                                          |
| Yongjun Wang                                                                                                                                                            | Guilin Univ. of Aerospace Technology  |                                                                                                                                                                                    |                                                                                                          |
| Xinya An                                                                                                                                                                | Guilin Univ. of Aerospace Technology  |                                                                                                                                                                                    |                                                                                                          |
| Mohammed Alameer                                                                                                                                                        | Guilin Univ. of Electronic Technology |                                                                                                                                                                                    |                                                                                                          |

*machining of micro-holes in precision parts*

|               |                                 |
|---------------|---------------------------------|
| Tao Zhang     | AVIC. Qing'An Group., Co., Ltd. |
| Kun Li        | AVIC. Qing'An Group., Co., Ltd. |
| Yongpeng Wang | AVIC. Qing'An Group., Co., Ltd. |
| Yunlong Gao   | AVIC. Qing'An Group., Co., Ltd. |
| Dongdong Yin  | AVIC. Qing'An Group., Co., Ltd. |

16:41-16:49 D7.8

**1195** *Design and research of permanent magnet synchronous motor for high-lift systems in wide-body aircraft*

|             |                                 |
|-------------|---------------------------------|
| Feng Liu    | AVIC. Qing'An Group., Co., Ltd. |
| Bo Wang     | AVIC. Qing'An Group., Co., Ltd. |
| Wenjing Cui | AVIC. Qing'An Group., Co., Ltd. |
| Shuwen Feng | AVIC. Qing'An Group., Co., Ltd. |

16:49-16:57 D7.9

**789** *A guidance law design method based on line-of-sight angle nonlinear anti-saturation*

|               |                      |
|---------------|----------------------|
| Lei Junwei    | Naval Aviation Univ. |
| Heng Li       | Naval Aviation Univ. |
| Yuliang Cheng | Naval Aviation Univ. |
| Chao Dong     | Naval Aviation Univ. |

16:57-17:05 D7.10

**886** *FT-transformer-based prediction of bow-wave-induced drogue aerodynamic loads*

|                |                                                                                                |
|----------------|------------------------------------------------------------------------------------------------|
| Lin Xu         | Nanjing Univ. of Aeronautics and Astronautics                                                  |
| Zikang Su      | Nanjing Univ. of Aeronautics and Astronautics                                                  |
| Jinjin Wan     | AVIC Luoyang Institute of Electro-Optical Equipment                                            |
| Chaoqiang Zhao | AVIC Luoyang Institute of Electro-Optical Equipment                                            |
| ChangLin Luo   | National Center (Sichuan) of Technology Innovation for Advanced Aviation Equipment Corporation |
| Xinru Wang     | Nanjing Univ. of Aeronautics and Astronautics                                                  |
| ChangHui Jiang | Nanjing Univ. of Aeronautics and Astronautics                                                  |

17:05-17:13 D7.11

**526** *Solution and visualization system design of unmanned system cooperative navigation for real-time application*

|              |                                               |
|--------------|-----------------------------------------------|
| Huiming Wang | Nanjing Univ. of Aeronautics and Astronautics |
| Ling Zhang   | Nanjing Univ. of Aeronautics and Astronautics |
| Haoyu Zhou   | Nanjing Univ. of Aeronautics and Astronautics |
| Zihao Jin    | Nanjing Univ. of Aeronautics and Astronautics |
| Yilin Yang   | Nanjing Univ. of Aeronautics and Astronautics |
| Zhi Xiong    | Nanjing Univ. of Aeronautics and Astronautics |

17:13-17:21 D7.12

**766** *System-level modeling and dynamic characteristic analysis of a servo-pendulous accelerometer*

|           |                                                  |
|-----------|--------------------------------------------------|
| Lixia Fan | AVIC Beijing Keeven Aviation Instrument Co., Ltd |
|-----------|--------------------------------------------------|

|             |                                                  |
|-------------|--------------------------------------------------|
| Chuanmin Qi | AVIC Beijing Keeven Aviation Instrument Co., Ltd |
|-------------|--------------------------------------------------|

|            |                                                      |
|------------|------------------------------------------------------|
| Shumei Han | AVIC Shenyang Aircraft Design and Research Institute |
|------------|------------------------------------------------------|

|               |                                                  |
|---------------|--------------------------------------------------|
| Zhenwang Yang | AVIC Beijing Keeven Aviation Instrument Co., Ltd |
|---------------|--------------------------------------------------|

17:21-17:29 D7.13

**1008** *Scenario-driven system evaluation: Metric organization and method validation*

|              |                |
|--------------|----------------|
| Mengjin Qu   | Tsinghua Univ. |
| Xinran Chang | Tsinghua Univ. |
| Long He      | Tsinghua Univ. |
| Yining Yao   | Tsinghua Univ. |
| Qing Li      | Tsinghua Univ. |

17:29-17:37 D7.14

**1139** *Few-shot threat intelligence extraction for CPS security towards knowledge graph construction*

|                 |                |
|-----------------|----------------|
| Zi Ye           | Zhejiang Univ. |
| Chengcheng Zhao | Zhejiang Univ. |
| Jiahao Weng     | Zhejiang Univ. |
| Yucheng Ruan    | Zhejiang Univ. |
| Peng Cheng      | Zhejiang Univ. |

17:37-17:45 D7.15

**351** *Optimization design of surface textures for a grease lubricated shaft-bushing system*

|             |                                 |
|-------------|---------------------------------|
| Kun Li      | AVIC. Qing'An Group .,Co., Ltd. |
| Yunlong Gao | AVIC. Qing'An Group .,Co., Ltd. |
| Tao Zhang   | AVIC. Qing'An Group .,Co., Ltd. |
| Hui Zhang   | Xi'an Jiaotong Univ.            |

**D8** **2nd Floor Guilin Room 1**  
**Classic GNC** **2 层 桂林厅 1**

Chairs: Zhaoyu Zhang

15:45-15:53 D8.1

**1013** *Prediction-assisted observation subset selection for space-based angle-only tracking*

|             |                                      |
|-------------|--------------------------------------|
| Fansen Zhou | National Univ. of Defense Technology |
| Xin Wen     | National Univ. of Defense Technology |
| Wei Zheng   | National Univ. of Defense Technology |

15:53-16:01 D8.2

**1712** *Test framework design for intelligent traversal fault injection, diagnosis and identification of satellites*

|              |                                          |
|--------------|------------------------------------------|
| Zhe Wang     | Beijing Institute of Control Engineering |
| Jianmin Zhou | Beijing Institute of Control Engineering |
| Lixin Pan    | Beijing Institute of Control Engineering |

16:01-16:09 D8.3

**331** *Development and engineering application challenges of air-to-air refueling technology for U.S. aircraft*

|               |                                                   |
|---------------|---------------------------------------------------|
| Jiaju Wu      | AVIC First Aircraft Design and Research Institute |
| Ning Yu       | AVIC First Aircraft Design and Research Institute |
| Feihong Jiang | AVIC First Aircraft Design and Research Institute |
| Tian Zhao     | AVIC First Aircraft Design and Research Institute |

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|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------|---------------------------------------------------|
| 16:09-16:17                                                                                                                             | D8.4                                                   | Hao Li                         | AVIC First Aircraft Design and Research Institute |
| <b>332</b> Automatic alignment of semi-physical platform design and experimental verification                                           |                                                        |                                |                                                   |
| Zhengbo Zhu                                                                                                                             | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Jiaju Wu                                                                                                                                | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| 16:17-16:25                                                                                                                             | D8.5                                                   | Xinhui Zhang                   | AVIC First Aircraft Design and Research Institute |
| <b>396</b> On the search algorithm for atmospheric characteristic parameters in three-dimensional point cloud domain based on hash grid |                                                        |                                |                                                   |
| Yuxiang Zhang                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Feihong Jiang                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Xin Zhang                                                                                                                               | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Mingjie Li                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| 16:25-16:33                                                                                                                             | D8.6                                                   | Min Zhang                      | AVIC First Aircraft Design and Research Institute |
| <b>408</b> A precise trajectory control method for large aircraft without air incidence angle feedback                                  |                                                        |                                |                                                   |
| Cihang Wu                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute |                                |                                                   |
| Yang Meng                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute |                                |                                                   |
| Erzhuo Niu                                                                                                                              | AVIC Xi'an Flight Automatic Control Research Institute |                                |                                                   |
| Yuyan Cao                                                                                                                               | AVIC Xi'an Flight Automatic Control Research Institute |                                |                                                   |
| Ke Yu                                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute |                                |                                                   |
| 16:33-16:41                                                                                                                             | D8.7                                                   | Linhan He                      | AVIC First Aircraft Design and Research Institute |
| <b>417</b> Contribution research on embedded air data solving algorithm based on reptile search algorithm optimized neural network      |                                                        |                                |                                                   |
| Hao Li                                                                                                                                  | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Yinglong Wang                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Hang Chen                                                                                                                               | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Shimin Liu                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Letian Zhao                                                                                                                             | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| 16:41-16:49                                                                                                                             | D8.8                                                   | Wenjing Liao                   | AVIC First Aircraft Design and Research Institute |
| <b>567</b> Task assignment for heterogeneous UAV swarm based on an improved multi-objective grey wolf optimization algorithm            |                                                        |                                |                                                   |
| Yan Zhang                                                                                                                               | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Hang Chen                                                                                                                               | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Letian Zhao                                                                                                                             | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Shimin Liu                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| 16:49-16:57                                                                                                                             | D8.9                                                   | Hui Shen                       | AVIC First Aircraft Design and Research Institute |
| <b>663</b> Research on human-computer interaction design of civil aircraft flight control system                                        |                                                        |                                |                                                   |
|                                                                                                                                         |                                                        |                                |                                                   |
| 16:57-17:05                                                                                                                             | D8.10                                                  | Yingyi Bao                     | AVIC First Aircraft Design and Research Institute |
| <b>833</b> Analysis of reset fault characteristics of MIL1394B bus and fault tolerance design of airborne system                        |                                                        |                                |                                                   |
| Yueming Zhao                                                                                                                            | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
|                                                                                                                                         |                                                        |                                |                                                   |
| 17:05-17:13                                                                                                                             | D8.11                                                  | Min Zhang                      | AVIC First Aircraft Design and Research Institute |
| <b>865</b> Path planning for UAV based on improved particle swarm optimization algorithm                                                |                                                        |                                |                                                   |
|                                                                                                                                         |                                                        |                                |                                                   |
| 17:13-17:21                                                                                                                             | D8.12                                                  | Beilei Yang                    | AVIC First Aircraft Design and Research Institute |
| <b>934</b> Research on the initial state of the flight control law fader                                                                |                                                        |                                |                                                   |
| Yuxiang Zhang                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
|                                                                                                                                         |                                                        |                                |                                                   |
| 17:21-17:29                                                                                                                             | D8.13                                                  |                                |                                                   |
| <b>1111</b> Design and implementation of an integrated control system for aircraft cockpit control devices                              |                                                        |                                |                                                   |
| Linya Yang                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Xiantong Chen                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Zhenyun Shi                                                                                                                             | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| <b>D9</b>                                                                                                                               |                                                        | <b>2nd Floor Guilin Room 2</b> |                                                   |
| <b>Multi-agent GNC</b>                                                                                                                  |                                                        | <b>2 层 桂林厅 2</b>               |                                                   |
| Chairs: Zirui Cheng                                                                                                                     |                                                        |                                |                                                   |
| 15:45-15:53                                                                                                                             | D9.1                                                   |                                |                                                   |
| <b>169</b> Cooperative path planning and finite-time control for UAV formation with obstacle avoidance                                  |                                                        |                                |                                                   |
| Shichao Ma                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Wenqian Zhang                                                                                                                           | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Yukun Yang                                                                                                                              | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Zhiyu Li                                                                                                                                | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Hao Li                                                                                                                                  | AVIC First Aircraft Design and Research Institute      |                                |                                                   |
| Hou Lin                                                                                                                                 | AVIC Xi'an Flight Automatic                            |                                |                                                   |

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|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
|                                                                                                                                | Control Research Institute                             |                                                                                                                                                                 | Research Institute                                 |
| Qiang Tang                                                                                                                     | AVIC First Aircraft Design and Research Institute      | Guoda Cheng                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| Xianglun Zhang                                                                                                                 | AVIC First Aircraft Design and Research Institute      | Heng Zhang                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| 15:53-16:01                                                                                                                    | D9.2                                                   | Shaoxian Ma                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| <b>1076</b> <i>Research on fixed-wing target UAVs' tracking and distance maintenance task based on improved SAC method</i>     |                                                        | Tianyu Huang                                                                                                                                                    | AVIC First Aircraft Design and Research Institute  |
| Jinpeng Wang                                                                                                                   | AVIC Xi'an Flight Automatic Control Research Institute | Baichuan Zhang                                                                                                                                                  | AVIC First Aircraft Design and Research Institute  |
| Lin Hou                                                                                                                        | AVIC Xi'an Flight Automatic Control Research Institute | Zirui Cheng                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| Qiang Tang                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute | 16:25-16:33                                                                                                                                                     | D9.6                                               |
| Jinzhao Zhang                                                                                                                  | AVIC Xi'an Flight Automatic Control Research Institute | <b>1270</b> <i>Research on intelligent route planning algorithm based on value iteration network</i>                                                            |                                                    |
| Yukun Yang                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute | Yanwei Du                                                                                                                                                       | AVIC First Aircraft Design and Research Institute  |
| Jiayun Wen                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute | Shaoxian Ma                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| Zhiyu Li                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute | Heng Zhang                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| Ling Zuo                                                                                                                       | AVIC Xi'an Flight Automatic Control Research Institute | Mingdong Qi                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| 16:01-16:09                                                                                                                    | D9.3                                                   | Zirui Cheng                                                                                                                                                     | AVIC First Aircraft Design and Research Institute  |
| <b>1148</b> <i>MSCA-Unet: Lightweight U-Net network for sea ice semantic segmentation</i>                                      |                                                        | 16:33-16:41                                                                                                                                                     | D9.7                                               |
| YiFan Ge                                                                                                                       | AVIC First Aircraft Design and Research Institute      | <b>1315</b> <i>Real-time simulation system for UAV swarms based on container technology</i>                                                                     |                                                    |
| Li Su                                                                                                                          | Harbin Engineering Univ.                               | Yukun Yang                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| Shaolong Song                                                                                                                  | AVIC First Aircraft Design and Research Institute      | Yongtao Peng                                                                                                                                                    | AVIC First Aircraft Design and Research Institute  |
| Bowei Wang                                                                                                                     | AVIC Xi'an Flight Automatic Control Research Institute | Wenqian Zhang                                                                                                                                                   | AVIC First Aircraft Design and Research Institute  |
| Xiaole Xu                                                                                                                      | AVIC Xi'an Flight Automatic Control Research Institute | Shichao Ma                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| 16:09-16:17                                                                                                                    | D9.4                                                   | Zhiyu Li                                                                                                                                                        | AVIC First Aircraft Design and Research Institute  |
| <b>1200</b> <i>An accelerated branch and bound algorithm for heterogeneous UAV task allocation under the mixed constraints</i> |                                                        | Jiayun Wen                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| Baichuan Zhang                                                                                                                 | AVIC First Aircraft Design and Research Institute      | Jinpeng Wang                                                                                                                                                    | AVIC First Aircraft Design and Research Institute  |
| Guoliang Yang                                                                                                                  | AVIC First Aircraft Design and Research Institute      | Qiang Tang                                                                                                                                                      | AVIC First Aircraft Design and Research Institute  |
| Zirui Cheng                                                                                                                    | AVIC First Aircraft Design and Research Institute      | Xianglun Zhang                                                                                                                                                  | AVIC First Aircraft Design and Research Institute  |
| Tianyu Huang                                                                                                                   | AVIC First Aircraft Design and Research Institute      | 16:41-16:49                                                                                                                                                     | D9.8                                               |
| Heng Zhang                                                                                                                     | AVIC First Aircraft Design and Research Institute      | <b>1330</b> <i>Research on key technologies of FPGA modular development architecture for radar signal acquisition system for swarm unmanned aerial vehicles</i> |                                                    |
| Yicong Li                                                                                                                      | AVIC First Aircraft Design and Research Institute      | Yike Wang                                                                                                                                                       | Xi'an Modern Control Technology Research Institute |
| Shaoxin Ma                                                                                                                     | AVIC First Aircraft Design and Research Institute      | Yu Liu                                                                                                                                                          | Xi'an Modern Control Technology Research Institute |
| 16:17-16:25                                                                                                                    | D9.5                                                   | Hang Xu                                                                                                                                                         | Xi'an Modern Control Technology Research Institute |
| <b>1257</b> <i>Dynamic attack task replanning for multi-UAV systems based on improved contract net protocol</i>                |                                                        |                                                                                                                                                                 |                                                    |
| Guangen Gao                                                                                                                    | AVIC First Aircraft Design and                         |                                                                                                                                                                 |                                                    |

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|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Songkun Yan                                                                                                               | Xi'an Modern Control Technology Research Institute | Shichao Ma                                                                                                 | AVIC First Aircraft Design and Research Institute |
| Yiming Li                                                                                                                 | Xi'an Institute of Applied Optics                  | 17:21-17:29                                                                                                | D9.13                                             |
| 16:49-16:57                                                                                                               | D9.9                                               | <b>754</b> Robust control method for autonomous attack guidance of six-degree-of-freedom UAV model         |                                                   |
| <b>350</b> Research on multi-UAV cooperative 3D trajectory planning based on improved A* algorithm                        |                                                    | Yicong Li                                                                                                  | AVIC First Aircraft Design and Research Institute |
| Yilin Xun                                                                                                                 | Xi'an Modern Control Technology Research Institute | Zhongjun Qu                                                                                                | AVIC First Aircraft Design and Research Institute |
| Hang Xu                                                                                                                   | Xi'an Modern Control Technology Research Institute | Zhe Wang                                                                                                   | AVIC First Aircraft Design and Research Institute |
| Yu Liu                                                                                                                    | Xi'an Modern Control Technology Research Institute | Baichuan Zhang                                                                                             | AVIC First Aircraft Design and Research Institute |
| Shichao Ma                                                                                                                | AVIC First Aircraft Design and Research Institute  | Zirui Cheng                                                                                                | AVIC First Aircraft Design and Research Institute |
| 16:57-17:05                                                                                                               | D9.10                                              | Zhen Yang                                                                                                  | Northwestern Polytechnical Univ.                  |
| <b>357</b> A study on control optimization methods for clustered UAV electric sservos incorporating expert PID strategies |                                                    | 17:29-17:37                                                                                                | D9.14                                             |
| Yunkai Ma                                                                                                                 | Xi'an Modern Control Technology Research Institute | <b>970</b> Research on reinforcement learning-based Multi-UAV cooperative target approaching strategy      |                                                   |
| Ping Li                                                                                                                   | Xi'an Modern Control Technology Research Institute | Hao Li                                                                                                     | AVIC First Aircraft Design and Research Institute |
| Lisha Yao                                                                                                                 | Xi'an Modern Control Technology Research Institute | Yongtao Peng                                                                                               | AVIC First Aircraft Design and Research Institute |
| TianHao Yang                                                                                                              | Xi'an Modern Control Technology Research Institute | 17:37-17:45                                                                                                | D9.15                                             |
| Wentao Feng                                                                                                               | Xi'an Modern Control Technology Research Institute | <b>995</b> Multi-UAV cooperative reconnaissance task assignment method based on CBBA algorithm             |                                                   |
| Rizhong Wang                                                                                                              | Xi'an Modern Control Technology Research Institute | Tianyu Huang                                                                                               | AVIC First Aircraft Design and Research Institute |
| 17:05-17:13                                                                                                               | D9.11                                              | Liu Gao                                                                                                    | AVIC First Aircraft Design and Research Institute |
| <b>475</b> Adaptive interacting multiple model fusion filtering for UAV formation target tracking                         |                                                    | Zirui Cheng                                                                                                | AVIC First Aircraft Design and Research Institute |
| Haozhe He                                                                                                                 | Xi'an Modern Control Technology Research Institute | Heng Zhang                                                                                                 | AVIC First Aircraft Design and Research Institute |
| Kang Zhao                                                                                                                 | Xi'an Modern Control Technology Research Institute | Baichuan Zhang                                                                                             | AVIC First Aircraft Design and Research Institute |
| Bo Fu                                                                                                                     | Xi'an Modern Control Technology Research Institute | Shichao Ma                                                                                                 | AVIC First Aircraft Design and Research Institute |
| Junmin Zhao                                                                                                               | Xi'an Modern Control Technology Research Institute | <b>D10</b> 2nd Floor VIP Room 2                                                                            |                                                   |
| Zhongyun Fan                                                                                                              | Xi'an Modern Control Technology Research Institute | <b>Confrontation GNC</b> 2层 贵宾厅 2                                                                          |                                                   |
| 17:13-17:21                                                                                                               | D9.12                                              | Chairs: Mengyun Wang                                                                                       |                                                   |
| <b>520</b> Multi-Constraint cooperative attack path planning for manned and UAV collaborative ground attack               |                                                    | 15:45-15:53                                                                                                | D10.1                                             |
| Zirui Cheng                                                                                                               | AVIC First Aircraft Design and Research Institute  | <b>752</b> Affine formation control for fixed-wing UAVs with formation maintenance and obstacle avoidance  |                                                   |
| Mingdong Qi                                                                                                               | AVIC First Aircraft Design and Research Institute  | Tianyu Li                                                                                                  | Northwestern Polytechnical Univ.                  |
| Tianyu Huang                                                                                                              | AVIC First Aircraft Design and Research Institute  | Yiwei Zhang                                                                                                | Northwestern Polytechnical Univ.                  |
| Yicong Li                                                                                                                 | AVIC First Aircraft Design and Research Institute  | Jingping Shi                                                                                               | Northwestern Polytechnical Univ.                  |
| Baichuan Zhang                                                                                                            | AVIC First Aircraft Design and Research Institute  | Yongxi Lyu                                                                                                 | Northwestern Polytechnical Univ.                  |
| Heng Zhang                                                                                                                | AVIC First Aircraft Design and Research Institute  | 15:53-16:01                                                                                                | D10.2                                             |
|                                                                                                                           |                                                    | <b>776</b> Multi-UAV cooperative pursuit of an evader with a reach-avoid strategy in obstacle environments |                                                   |
|                                                                                                                           |                                                    | Wei Zhang                                                                                                  | National Univ. of Defense Technology              |
|                                                                                                                           |                                                    | Mengyun Wang                                                                                               | National Univ. of Defense Technology              |
|                                                                                                                           |                                                    | Zhan Chen                                                                                                  | National Univ. of Defense Technology              |
|                                                                                                                           |                                                    | Kunzhong Miao                                                                                              | National Univ. of Defense Technology              |
|                                                                                                                           |                                                    | Jing Fu                                                                                                    | National Univ. of Defense Technology              |
|                                                                                                                           |                                                    | Yifeng Niu                                                                                                 | National Univ. of Defense Technology              |

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| 16:01-16:09                                                                                                                          | D10.3                                                                               |                                                                                                                                              | Astronautics                                                                        |
| <b>375</b> <i>An omnidirectional turn control law based on the gauss pseudospectral method</i>                                       |                                                                                     | 16:41-16:49                                                                                                                                  | D10.8                                                                               |
| Hongyu Zhao                                                                                                                          | Shanghai Electro-Mechanical Engineering Institute                                   | <b>638</b> <i>Distributed nonlinear model predictive control based UAV-USV formation control</i>                                             |                                                                                     |
| Tianyu Zheng                                                                                                                         | Shanghai Electro-Mechanical Engineering Institute                                   | Yaxuan Yin                                                                                                                                   | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Lin Qi                                                                                                                               | Shanghai Electro-Mechanical Engineering Institute                                   | Mingrui Hao                                                                                                                                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Xinpeng Xu                                                                                                                           | Shanghai Electro-Mechanical Engineering Institute                                   | Xiaoyu Zhuang                                                                                                                                | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Zhijun Luo                                                                                                                           | Shanghai Academy of Spaceflight Technology                                          |                                                                                                                                              |                                                                                     |
| 16:09-16:17                                                                                                                          | D10.4                                                                               | 16:49-16:57                                                                                                                                  | D10.9                                                                               |
| <b>424</b> <i>FOV-constrained cooperative coverage optimization for optimal mid-to-terminal handover point selection</i>             |                                                                                     | <b>645</b> <i>强化学习的理论与发展趋势研究</i>                                                                                                             |                                                                                     |
| Haobo Xie                                                                                                                            | China Airborne Missile Academy                                                      | Sichan Xu                                                                                                                                    | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Yanke Xu                                                                                                                             | China Airborne Missile Academy                                                      | Fengyi Li                                                                                                                                    | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Long Wang                                                                                                                            | China Airborne Missile Academy                                                      |                                                                                                                                              |                                                                                     |
| 16:17-16:25                                                                                                                          | D10.5                                                                               | 16:57-17:05                                                                                                                                  | D10.10                                                                              |
| <b>473</b> <i>An image quality assessment algorithm based on perceptual tasks</i>                                                    |                                                                                     | <b>940</b> <i>Trajectory optimization and intelligent guidance for ascent phase of aerospace vehicles</i>                                    |                                                                                     |
| Siting Peng                                                                                                                          | Beijing Electro-Mechanical Engineering Institute                                    | Jieming Li                                                                                                                                   | Dalian Univ. of Technology                                                          |
| Hanyong Wang                                                                                                                         | Sichuan Univ.                                                                       | Shuaibin An                                                                                                                                  | Dalian Univ. of Technology                                                          |
| Sichang Peng                                                                                                                         | Jiangnan Design Institute of Machinery and Electricity                              | Guan Wang                                                                                                                                    | Dalian Univ. of Technology                                                          |
| Yuxiao Pei                                                                                                                           | Beijing Electro-Mechanical Engineering Institute                                    | Feng Yang                                                                                                                                    | Dalian Univ. of Technology                                                          |
| Chuang Song                                                                                                                          | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation | Kai Liu                                                                                                                                      | Dalian Univ. of Technology                                                          |
| Jiajia Zhao                                                                                                                          | Beijing Electro-Mechanical Engineering Institute                                    |                                                                                                                                              |                                                                                     |
| 16:25-16:33                                                                                                                          | D10.6                                                                               | 17:05-17:13                                                                                                                                  | D10.11                                                                              |
| <b>474</b> <i>A multi-sensor cooperative spatial configuration decision algorithm based on optimization of detection performance</i> |                                                                                     | <b>1314</b> <i>Time-Series-Aware multi-agent reinforcement learning guidance for cooperative interception</i>                                |                                                                                     |
| Siting Peng                                                                                                                          | Beijing Electro-Mechanical Engineering Institute                                    | Siyu Li                                                                                                                                      | Harbin Institute of Technology                                                      |
| Sichang Peng                                                                                                                         | Jiangnan Design Institute of Machinery and Electricity                              | Xinran Zhang                                                                                                                                 | Harbin Institute of Technology                                                      |
| Hanyong Wang                                                                                                                         | Sichuan Univ.                                                                       | Yuhao Yan                                                                                                                                    | Harbin Institute of Technology                                                      |
| Yuxiao Pei                                                                                                                           | Beijing Electro-Mechanical Engineering Institute                                    | Zhaochen Lin                                                                                                                                 | Harbin Institute of Technology                                                      |
| Chuang Song                                                                                                                          | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation | Fenghua He                                                                                                                                   | Harbin Institute of Technology                                                      |
| Jiajia Zhao                                                                                                                          | Beijing Electro-Mechanical Engineering Institute                                    |                                                                                                                                              |                                                                                     |
| 16:33-16:41                                                                                                                          | D10.7                                                                               | 17:13-17:21                                                                                                                                  | D10.12                                                                              |
| <b>608</b> <i>基于模糊自适应判决与图一致性过滤的低轨目标甚短弧测角初轨关联方法</i>                                                                                   |                                                                                     | <b>1383</b> <i>Multi-Agent path planning for Dubins vehicles via heading-evolution-guided MAPPO</i>                                          |                                                                                     |
| Yicheng Zhou                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics                                       | Jiashuai Si                                                                                                                                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Hongyu Su                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics                                       | Hancchen Lu                                                                                                                                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
| Baichun Gong                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics                                       | Mingrui Hai                                                                                                                                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
|                                                                                                                                      |                                                                                     | Jin Cheng                                                                                                                                    | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |
|                                                                                                                                      |                                                                                     | 17:21-17:29                                                                                                                                  | D10.13                                                                              |
|                                                                                                                                      |                                                                                     | <b>1674</b> <i>Research progress in cooperative navigation technology: a review of architectures, fusion methods, and development trends</i> |                                                                                     |
|                                                                                                                                      |                                                                                     | Jinrong Fan                                                                                                                                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation |

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|------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Hang Zhang                   | Intelligent Agent Cooperation                                                                                    | 15:45-17:45                                                                                                            | D12.3                                                     |
|                              | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation                              | <b>386 Robust visual-inertial odometry using learning-based features for embedded platforms</b>                        |                                                           |
| Mingrui Hao                  | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation                              | Yuhang Zhang                                                                                                           | Beijing Institute of Technology                           |
|                              |                                                                                                                  | Yuanchao Qiu                                                                                                           | Beijing Institute of Technology                           |
| Xujun Guan                   | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation                              | Yan Yang                                                                                                               | Beijing Institute of Technology                           |
|                              |                                                                                                                  | Haikuo Liu                                                                                                             | Beijing Institute of Technology                           |
| Xiaomeng Bai                 | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation                              | Changkun Du                                                                                                            | Intelligent Science and Technology Academy Limited, CASIC |
|                              |                                                                                                                  | Zhen Li                                                                                                                | Beijing Institute of Technology                           |
| Tao Li                       | National Key Laboratory of Complex System Control and Intelligent Agent Cooperation                              | 15:45-17:45                                                                                                            | D12.4                                                     |
|                              |                                                                                                                  | <b>415 Perception-aware trajectory and yaw optimization for UAVs in unknown weak-texture environments</b>              |                                                           |
| 17:29-17:37                  | D10.14                                                                                                           | Yan Yang                                                                                                               | Beijing Institute of Technology                           |
|                              | <b>1083 Proactive interception and capture of tumbling targets via Koopman-based DAW-MPC</b>                     | Ting Zhang                                                                                                             | Beijing Institute of Technology                           |
| Ze Yang                      | Shanghai Aerospace System Engineering Institute                                                                  | Yuanchao Qiu                                                                                                           | Beijing Institute of Technology                           |
|                              |                                                                                                                  | Yuhang Zhang                                                                                                           | Beijing Institute of Technology                           |
| Guanglie Yang                | Shanghai Aerospace System Engineering Institute                                                                  | Haikuo Liu                                                                                                             | Beijing Institute of Technology                           |
|                              |                                                                                                                  | Changkun Du                                                                                                            | Intelligent Science and Technology Academy Limited, CASIC |
| Xiaokun Liu                  | Shanghai Aerospace System Engineering Institute                                                                  | Zhen Li                                                                                                                | Beijing Institute of Technology                           |
|                              |                                                                                                                  | 15:45-17:45                                                                                                            | D12.5                                                     |
| Zongxiang Jin                | Shanghai Aerospace System Engineering Institute                                                                  | <b>510 Optimal slip ratio fuzzy estimation algorithm based on information-gated and multi-time-scale memory fusion</b> |                                                           |
|                              |                                                                                                                  | He Zheng                                                                                                               | Beijing Institute of Technology                           |
| 17:37-17:45                  | D10.15                                                                                                           | Xuefei Mao                                                                                                             | Beijing Institute of Technology                           |
|                              | <b>1248 Airborne gimbal control for moving target tracking: design and experiments via UDE-MPC</b>               | Zhen Li                                                                                                                | Beijing Institute of Technology                           |
| Qiuhan Chen                  | Harbin Institute of Technology                                                                                   | 15:45-17:45                                                                                                            | D12.6                                                     |
|                              |                                                                                                                  | <b>286 Non-singular fast terminal sliding-mode fault-tolerant attitude control for small size unmanned helicopter</b>  |                                                           |
| Shiyao Li                    | Harbin Institute of Technology                                                                                   | Aochen Ma                                                                                                              | Tianjin Univ.                                             |
|                              |                                                                                                                  | Bin Xian                                                                                                               | Tianjin Univ.                                             |
| Rui Xing                     | Harbin Institute of Technology                                                                                   | 15:45-17:45                                                                                                            | D12.7                                                     |
|                              |                                                                                                                  | <b>321 Predefined-time longitudinal tracking control for morphing hypersonic aircraft under external disturbances</b>  |                                                           |
| Bohan Wu                     | Harbin Institute of Technology                                                                                   | Yuanhang Yang                                                                                                          | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  | Yuehui Ji                                                                                                              | Tianjin Univ. of Technology                               |
| Baoqing Yang                 | Harbin Institute of Technology                                                                                   | Junjie Liu                                                                                                             | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  | Xuewen Zhao                                                                                                            | Tianjin Univ. of Technology                               |
| <b>D12 2nd Floor Aisel</b>   |                                                                                                                  | Qiang Gao                                                                                                              | Tianjin Univ. of Technology                               |
| <b>Poster Session 2 层连廊厅</b> |                                                                                                                  | 15:45-17:45                                                                                                            | D12.8                                                     |
| Chairs: Yichen Tao           |                                                                                                                  | <b>433 Hierarchical reinforcement learning with adaptive self-play for multi-UCAV cooperative air combat</b>           |                                                           |
|                              |                                                                                                                  | Haoming Dou                                                                                                            | Tianjin Univ. of Technology                               |
| 15:45-17:45                  | D12.1                                                                                                            | Bingcong Zou                                                                                                           | Tianjin Univ. of Technology                               |
|                              | <b>1459 XGrid-mapping: Explicit-implicit hybrid grid submaps for efficient incremental neural LiDAR mapping</b>  | Yuehui Ji                                                                                                              | Tianjin Univ. of Technology                               |
| Zeqing Song                  | Shanghai Jiao Tong Univ.                                                                                         | Jianyun Ni                                                                                                             | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  | Junjie Liu                                                                                                             | Tianjin Univ. of Technology                               |
| Zhongmiao Yan                | Shanghai Jiao Tong Univ.                                                                                         | 15:45-17:45                                                                                                            | D12.9                                                     |
|                              |                                                                                                                  | <b>602 Multi-UAV suspension system control based on actor-critic algorithm</b>                                         |                                                           |
| Junyuan Deng                 | The Hong Kong Univ. of Science and Technology                                                                    | Ruoxin Sun                                                                                                             | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  | Fengxiao Zhang                                                                                                         | State Grid Tianjin Electric Power Company                 |
| Songpengcheng Xia            | Shanghai Jiao Tong Univ.                                                                                         | Tian Xie                                                                                                               | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  | Jigang Tong                                                                                                            | Tianjin Univ. of Technology                               |
| Xiang Mu                     | Horizon Robotics Inc.                                                                                            | Sen Yang                                                                                                               | Tianjin Univ. of Technology                               |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Qi Wu                        | ByteDance Inc.                                                                                                   |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Ling Pei                     | Shanghai Jiao Tong Univ.                                                                                         |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| 15:45-17:45                  | D12.2                                                                                                            |                                                                                                                        |                                                           |
|                              | <b>1574 SemGeoNav: A safety-guided visual navigation approach with semantic reasoning and geometric planning</b> |                                                                                                                        |                                                           |
| Yu Liu                       | National Univ. of Defense Technology                                                                             |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Zongyang Chen                | National Univ. of Defense Technology                                                                             |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Yan Guo                      | National Univ. of Defense Technology                                                                             |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Chao Liu                     | National Univ. of Defense Technology                                                                             |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |
| Xianfei Pan                  | National Univ. of Defense Technology                                                                             |                                                                                                                        |                                                           |
|                              |                                                                                                                  |                                                                                                                        |                                                           |

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| 15:45-17:45                                                                                                                                             | D12.10                                                   |  |  |
| <b>494</b> <i>Error suppression method for HRG inertial navigation system based on combined modulation of single-axis rotation and virtual rotation</i> |                                                          |  |  |
| Yutao Wu                                                                                                                                                | National Univ. of Defense Technology                     |  |  |
| Hongjie Meng                                                                                                                                            | National Univ. of Defense Technology                     |  |  |
| Qixin Lou                                                                                                                                               | National Univ. of Defense Technology                     |  |  |
| Huiping Li                                                                                                                                              | National Univ. of Defense Technology                     |  |  |
| Chao Liu                                                                                                                                                | National Univ. of Defense Technology                     |  |  |
| Tian Lan                                                                                                                                                | National Univ. of Defense Technology                     |  |  |
| Xudong Yu                                                                                                                                               | National Univ. of Defense Technology                     |  |  |
| 15:45-17:45                                                                                                                                             | D12.11                                                   |  |  |
| <b>828</b> <i>Robust filtering for SINS/GNSS integrated navigation using multiple fading factors and robust weighting</i>                               |                                                          |  |  |
| Jiaxi Guo                                                                                                                                               | Chengdu Univ.                                            |  |  |
| Li Luo                                                                                                                                                  | Chengdu Univ.                                            |  |  |
| Ling Luo                                                                                                                                                | Chengdu Univ.                                            |  |  |
| Yidong Shen                                                                                                                                             | Chengdu Univ.                                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.12                                                   |  |  |
| <b>885</b> <i>Suppression of environmental disturbances and intrinsic noise in fiber-optic gyroscopes via a fused dual-coil configuration</i>           |                                                          |  |  |
| Zihan Gao                                                                                                                                               | Central South Univ.                                      |  |  |
| YanJun Chen                                                                                                                                             | Central South Univ.                                      |  |  |
| Lin Xu                                                                                                                                                  | Central South Univ.                                      |  |  |
| Hao Jiang                                                                                                                                               | Central South Univ.                                      |  |  |
| Wenbo Wang                                                                                                                                              | Peking Univ.                                             |  |  |
| Zhengbin Li                                                                                                                                             | Peking Univ.                                             |  |  |
| 15:45-17:45                                                                                                                                             | D12.13                                                   |  |  |
| <b>952</b> <i>Robust extended target tracking based on Markov switching mixture</i>                                                                     |                                                          |  |  |
| Guoqing Wang                                                                                                                                            | China Univ. of Mining and Technology                     |  |  |
| Xinxin Gu                                                                                                                                               | China Univ. of Mining and Technology                     |  |  |
| 15:45-17:45                                                                                                                                             | D12.14                                                   |  |  |
| <b>1733</b> <i>The inertial/visual asynchronous fusion algorithm for UAV under GNSS-denial environments and flight verification</i>                     |                                                          |  |  |
| Huiqing Sun                                                                                                                                             | Harbin Engineering Univ.                                 |  |  |
| Ziqiang Wang                                                                                                                                            | Harbin Engineering Univ.                                 |  |  |
| Zhongxing Gao                                                                                                                                           | Harbin Engineering Univ.                                 |  |  |
| 15:45-17:45                                                                                                                                             | D12.15                                                   |  |  |
| <b>209</b> <i>Agile trajectory tracking of quadrotor with suspended payload via PSO-based nonlinear control</i>                                         |                                                          |  |  |
| Xun Gu                                                                                                                                                  | Guiyang Univ.                                            |  |  |
| Qiang Guo                                                                                                                                               | Guiyang Univ.                                            |  |  |
| Bin Xian                                                                                                                                                | Tianjin Univ.                                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.16                                                   |  |  |
| <b>530</b> <i>Flight risk assessment for UAV free flight based on actual navigation performance</i>                                                     |                                                          |  |  |
| Yuting Dai                                                                                                                                              | Army Engineering Univ. of PLA                            |  |  |
| Jingxian Wang                                                                                                                                           | Shanghai Univ.                                           |  |  |
| Bing Xu                                                                                                                                                 | Army Engineering Univ. of PLA                            |  |  |
| Tingting Bai                                                                                                                                            | Army Engineering Univ. of PLA                            |  |  |
| Peng Xu                                                                                                                                                 | Army Engineering Univ. of PLA                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.17                                                   |  |  |
| <b>818</b> <i>基于单一腕式设备的神经惯性定位方法</i>                                                                                                                     |                                                          |  |  |
| Shiyu Bai                                                                                                                                               | The Hong Kong Polytechnic Univ.                          |  |  |
| Jingxian Wang                                                                                                                                           | Shanghai Univ.                                           |  |  |
| 15:45-17:45                                                                                                                                             | D12.18                                                   |  |  |
| <b>915</b> <i>基于触地区间气压修正与建筑模型约束的行人三维定位方法</i>                                                                                                            |                                                          |  |  |
| Jiangfeng Huang                                                                                                                                         | Chongqing Univ. of Posts and Telecommunications          |  |  |
| Jingxian Wang                                                                                                                                           | Shanghai Univ.                                           |  |  |
| Feifan Lin                                                                                                                                              | The Hong Kong Polytechnic Univ.                          |  |  |
| Yue Yu                                                                                                                                                  | The Hong Kong Polytechnic Univ.                          |  |  |
| 15:45-17:45                                                                                                                                             | D12.19                                                   |  |  |
| <b>1391</b> <i>Uncertainty-aware LiDAR traversability estimation in off-road environments</i>                                                           |                                                          |  |  |
| Haoran Wang                                                                                                                                             | Tianjin Univ.                                            |  |  |
| Hongyue Li                                                                                                                                              | Tianjin Univ.                                            |  |  |
| Rui Song                                                                                                                                                | Tianjin Univ.                                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.20                                                   |  |  |
| <b>1673</b> <i>A lightweight bilateral feature fusion module for dual-branch real-time semantic segmentation</i>                                        |                                                          |  |  |
| Zhuwei Liu                                                                                                                                              | Tianjin Univ.                                            |  |  |
| Mingxi Song                                                                                                                                             | Tianjin Univ. of Technology                              |  |  |
| Rui Song                                                                                                                                                | Tianjin Univ.                                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.21                                                   |  |  |
| <b>181</b> <i>救援未知环境下的多无人机协同目标搜索及任务分配方法研究</i>                                                                                                           |                                                          |  |  |
| Rui Wang                                                                                                                                                | Civil Aviation Univ. of China                            |  |  |
| Lianwei Sun                                                                                                                                             | Civil Aviation Univ. of China                            |  |  |
| Jiajun Lian                                                                                                                                             | Civil Aviation Univ. of China                            |  |  |
| Kaixin Yang                                                                                                                                             | Tianjin College, Univ. of Science and Technology Beijing |  |  |
| Hui Sun                                                                                                                                                 | Civil Aviation Univ. of China                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.22                                                   |  |  |
| <b>552</b> <i>A two-layer trajectory planning framework for UAVs combining TAD-RRT* and kinematic-constrained smoothing</i>                             |                                                          |  |  |
| Xin Sun                                                                                                                                                 | Civil Aviation Univ. of China                            |  |  |
| Lianxu Zhao                                                                                                                                             | Civil Aviation Univ. of China                            |  |  |
| Runqi Chai                                                                                                                                              | Beijing Institute of Technology                          |  |  |
| Senchun Chai                                                                                                                                            | Beijing Institute of Technology                          |  |  |
| 15:45-17:45                                                                                                                                             | D12.23                                                   |  |  |
| <b>1335</b> <i>Research on belief control methods for manned robot based on reinforcement learning</i>                                                  |                                                          |  |  |
| Jiting Xue                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Qingji Gao                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Yuqi Zhang                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.24                                                   |  |  |
| <b>1350</b> <i>A vision-guided staged autonomous docking method for wheeled robots</i>                                                                  |                                                          |  |  |
| Jiayuan Hu                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Qingji Gao                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Yingjie Zhu                                                                                                                                             | Civil Aviation Univ. of China                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.25                                                   |  |  |
| <b>1374</b> <i>融合感受野注意力与动态采样的 YOLOv12 多目标检测方法</i>                                                                                                       |                                                          |  |  |
| Fengfa Yue                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Yuqi Zhang                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| Mengtian Li                                                                                                                                             | Civil Aviation Univ. of China                            |  |  |
| Qingji Gao                                                                                                                                              | Civil Aviation Univ. of China                            |  |  |
| 15:45-17:45                                                                                                                                             | D12.26                                                   |  |  |
| <b>196</b> <i>Model correction method based on physics-informed Kolmogorov-Arnold network for flying-wing UAV</i>                                       |                                                          |  |  |
| Ming Yan                                                                                                                                                | Dalian Univ. of Technology                               |  |  |

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|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------|
| Heqi Li                                                                                                      | AVIC Shenyang Aircraft Design and Research Institute | <b>1231</b> A cross-sea current compensation method for SINS/DVL integrated navigation                                                | Zhenli Ju      | Zhengzhou Univ.                               |
| Qingfeng Zhao                                                                                                | Dalian Univ. of Technology                           |                                                                                                                                       | Peijia Liu     | Zhengzhou Univ.                               |
| Kai Liu                                                                                                      | Dalian Univ. of Technology                           |                                                                                                                                       | Guanghua Li    | 713 Research Institute of CSSC                |
| 15:45-17:45                                                                                                  | D12.27                                               |                                                                                                                                       | Kai Wang       | 713 Research Institute of CSSC                |
| <b>643</b> Nonsingular terminal sliding mode control for the descent phase of hypersonic reentry vehicles    |                                                      |                                                                                                                                       | Yifan Zhang    | Tianjin Zhihui Ocean Technology Co., Ltd.     |
| Shuowen Lan                                                                                                  | Dalian Univ. of Technology                           |                                                                                                                                       | 15:45-17:45    | D12.33                                        |
| Dapeng Yang                                                                                                  | AVIC Shenyang Aircraft Design and Research Institute | <b>1033</b> Dynamic task scheduling for spacecraft based on Q-learning and load balancing                                             |                |                                               |
| Jianan Qin                                                                                                   | AVIC Shenyang Aircraft Design and Research Institute |                                                                                                                                       | Linhao Wang    | Nanjing Univ. of Aeronautics and Astronautics |
| Shuo Pan                                                                                                     | AVIC Shenyang Aircraft Design and Research Institute |                                                                                                                                       | Ziquan Yu      | Nanjing Univ. of Aeronautics and Astronautics |
| Guan Wang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | Youmin Zhang   | Concordia Univ.                               |
| Yuefang Wang                                                                                                 | Dalian Univ. of Technology                           |                                                                                                                                       | 15:45-17:45    | D12.34                                        |
| 15:45-17:45                                                                                                  | D12.28                                               | <b>1035</b> Distributed fault-tolerant formation control of multiple fixed-wing UAVs under communication loss                         |                |                                               |
| <b>708</b> State estimation of flexible hypersonic vehicles using optimal sensor placement and Kalman filter |                                                      |                                                                                                                                       | Xiangyang Yuan | Nanjing Univ. of Aeronautics and Astronautics |
| Cong Luo                                                                                                     | Dalian Univ. of Technology                           |                                                                                                                                       | Ziquan Yu      | Nanjing Univ. of Aeronautics and Astronautics |
| Yu Zhang                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute  |                                                                                                                                       | Youmin Zhang   | Concordia Univ.                               |
| Guan Wang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | 15:45-17:45    | D12.35                                        |
| Xi Cheng                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute  | <b>1041</b> Fault-tolerant decision-making for target redistribution of clustered unmanned aerial vehicles under multiple constraints |                |                                               |
| Qiang Min                                                                                                    | AVIC Chengdu Aircraft Design and Research Institute  |                                                                                                                                       | Ruihan Zhu     | Nanjing Univ. of Aeronautics and Astronautics |
| 15:45-17:45                                                                                                  | D12.29                                               |                                                                                                                                       | Ziquan Yu      | Nanjing Univ. of Aeronautics and Astronautics |
| <b>711</b> Data-driven robust adaptive control for flexible hypersonic vehicles                              |                                                      |                                                                                                                                       | Youmin Zhang   | Concordia Univ.                               |
| Ming Li                                                                                                      | Dalian Univ. of Technology                           |                                                                                                                                       | 15:45-17:45    | D12.36                                        |
| Dapeng Yang                                                                                                  | AVIC Shenyang Aircraft Design and Research Institute | <b>1619</b> Safe docking strategy for UAV aerial refueling with hose whipping suppression                                             |                |                                               |
| Honglin Liu                                                                                                  | Dalian Univ. of Technology                           |                                                                                                                                       | Wenbi Zhao     | Xi'an Technological Univ.                     |
| Guan Wang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | Ying Zhao      | Northwestern Polytechnical Univ.              |
| Kai Liu                                                                                                      | Dalian Univ. of Technology                           |                                                                                                                                       | Ziquan Yu      | Nanjing Univ. of Aeronautics and Astronautics |
| 15:45-17:45                                                                                                  | D12.30                                               |                                                                                                                                       | Yaohong Qu     | Northwestern Polytechnical Univ.              |
| <b>930</b> A handling qualities evaluation method for air-breathing hypersonic vehicles in the climb phase   |                                                      |                                                                                                                                       | 15:45-17:45    | D12.37                                        |
| Peinan Ren                                                                                                   | Dalian Univ. of Technology                           | <b>188</b> Global performance-guaranteed optimized control of quadrotor UAVs via ESO-based disturbance compensation                   |                |                                               |
| Honglin Liu                                                                                                  | Dalian Univ. of Technology                           |                                                                                                                                       | Zetao Cheng    | Anhui Univ. of Technology                     |
| Shuaibin An                                                                                                  | Dalian Univ. of Technology                           |                                                                                                                                       | Hao Shen       | Anhui Univ. of Technology                     |
| Feng Yang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | Zhengguo Huang | Anhui Univ. of Technology                     |
| Guan Wang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | Ce Wang        | Anhui Univ. of Technology                     |
| Kai Liu                                                                                                      | Dalian Univ. of Technology                           |                                                                                                                                       | Shaoyu Lv      | Anhui Univ. of Technology                     |
| 15:45-17:45                                                                                                  | D12.31                                               |                                                                                                                                       | Feng Li        | Anhui Univ. of Technology                     |
| <b>998</b> Neural longitudinal control for flexible hypersonic vehicles with variable geometry inlet         |                                                      |                                                                                                                                       | 15:45-17:45    | D12.38                                        |
| Renke He                                                                                                     | Dalian Univ. of Technology                           | <b>235</b> A model-free policy iteration algorithm for discrete-time stochastic linear quadratic optimal control problem              |                |                                               |
| Xi Cheng                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute  |                                                                                                                                       | Ruining Wang   | Shandong Univ. of Science and Technology      |
| Guan Wang                                                                                                    | Dalian Univ. of Technology                           |                                                                                                                                       | Hongji Ma      | Shandong Univ. of Science and Technology      |
| Yu Zhang                                                                                                     | AVIC Chengdu Aircraft Design and Research Institute  |                                                                                                                                       | Zhen Wang      | Shandong Univ. of Science and Technology      |
| Qiang Min                                                                                                    | AVIC Chengdu Aircraft Design and Research Institute  |                                                                                                                                       |                |                                               |
| 15:45-17:45                                                                                                  | D12.32                                               |                                                                                                                                       |                |                                               |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                                                                                                                                                | Technology                               | Hailong Pei                                                                                                                        | South China Univ. of Technology                                     |
| 15:45-17:45                                                                                                                                                    | D12.39                                   | 15:45-17:45                                                                                                                        | D12.46                                                              |
| <b>369</b> <i>Output feedback sliding mode-based admissibility for uncertain singular fractional-order systems and its application to circuits and systems</i> |                                          |                                                                                                                                    |                                                                     |
| Yunrui Zhang                                                                                                                                                   | Shandong Univ. of Science and Technology | Shuo Li                                                                                                                            | Shanghai Polytechnic Univ.                                          |
| Shubin Song                                                                                                                                                    | Shandong Univ. of Science and Technology | Zihuan Cheng                                                                                                                       | Guangdong Univ. of Technology                                       |
| Feng Wang                                                                                                                                                      | Shandong Univ. of Science and Technology | 15:45-17:45                                                                                                                        | D12.47                                                              |
| Bo Meng                                                                                                                                                        | Shandong Univ. of Science and Technology | <b>1232</b> <i>6D pose estimation for UAVs using UWB range and direction-of-arrival measurements</i>                               |                                                                     |
| Zhen Wang                                                                                                                                                      | Shandong Univ. of Science and Technology | Dongsheng Zhao                                                                                                                     | Electric Power Research Institute of Guangdong Power Grid Co., Ltd. |
| 15:45-17:45                                                                                                                                                    | D12.40                                   | Huanting Ye                                                                                                                        | South China Univ. of Technology                                     |
| <b>540</b> <i>Sliding mode security control for networked singular systems against DoS attacks</i>                                                             |                                          |                                                                                                                                    |                                                                     |
| Xuetong Zhang                                                                                                                                                  | Liaocheng Univ.                          | Hailong Pei                                                                                                                        | South China Univ. of Technology                                     |
| Zihan Zhao                                                                                                                                                     | Liaocheng Univ.                          | Chaoheng Meng                                                                                                                      | South China Univ. of Technology                                     |
| Zhihao Wang                                                                                                                                                    | Liaocheng Univ.                          | Qiquan Cui                                                                                                                         | South China Univ. of Technology                                     |
| Jingyang Yu                                                                                                                                                    | Liaocheng Univ.                          | 15:45-17:45                                                                                                                        | D12.49                                                              |
| Mengke Zhou                                                                                                                                                    | Liaocheng Univ.                          | <b>1530</b> <i>Improvement and application of the Harmony SE modeling process for flight control systems</i>                       |                                                                     |
| Mengjia Li                                                                                                                                                     | Liaocheng Univ.                          | Zheng Zhang                                                                                                                        | Shanghai Dianji Univ.                                               |
| Xiaodan Du                                                                                                                                                     | Liaocheng Univ.                          | Liang Zhu                                                                                                                          | Shanghai Dianji Univ.                                               |
| Xuefei Bai                                                                                                                                                     | Liaocheng Univ.                          | Xichao Wang                                                                                                                        | Shanghai Dianji Univ.                                               |
| Guangming Zhuang                                                                                                                                               | Liaocheng Univ.                          | Jie Fang                                                                                                                           | Shanghai Maritime Univ.                                             |
| 15:45-17:45                                                                                                                                                    | D12.41                                   | Xiaobin Hao                                                                                                                        | Shanghai Dianji Univ.                                               |
| <b>871</b> <i>非周期采样下网络化控制系统零动态攻击设计与异步采样-保持检测策略</i>                                                                                                             |                                          |                                                                                                                                    |                                                                     |
| Xinru Liu                                                                                                                                                      | Liaocheng Univ.                          | 15:45-17:45                                                                                                                        | D12.50                                                              |
| Jianwei Xia                                                                                                                                                    | Liaocheng Univ.                          | <b>451</b> <i>A robust end-to-end navigation method for autonomous vehicles based on Vision Transformer</i>                        |                                                                     |
| 15:45-17:45                                                                                                                                                    | D12.42                                   | Zheng Yang                                                                                                                         | The Hong Kong Univ. of Science and Technology (Guangzhou)           |
| <b>1047</b> <i>Distributed stochastic event-triggered optimal coordination for uncertain nonlinear multi-agent systems with coupling constraints</i>           |                                          |                                                                                                                                    |                                                                     |
| Huarong Yue                                                                                                                                                    | Liaocheng Univ.                          | Kefan Jin                                                                                                                          | Shanghai Jiao Tong Univ.                                            |
| Jianwei Xia                                                                                                                                                    | Liaocheng Univ.                          | Haoang Li                                                                                                                          | The Hong Kong Univ. of Science and Technology (Guangzhou)           |
| 15:45-17:45                                                                                                                                                    | D12.43                                   | Zhe Liu                                                                                                                            | Shanghai Jiao Tong Univ.                                            |
| <b>1251</b> <i>Adaptive anti-vibration boundary control for a moving helicopter flexible slung-load system with intermittent actuator faults</i>               |                                          |                                                                                                                                    |                                                                     |
| Yihua Gao                                                                                                                                                      | Henan Univ. of Science and Technology    | 15:45-17:45                                                                                                                        | D12.51                                                              |
| Danjing Zheng                                                                                                                                                  | Henan Univ. of Science and Technology    | <b>1273</b> <i>SeqAssign: Batch task chaining in shuttle-based multi-robot systems via sequence-constrained assignment</i>         |                                                                     |
| Shuai Song                                                                                                                                                     | Henan Univ. of Science and Technology    | Jieshi Xu                                                                                                                          | Shanghai Jiao Tong Univ.                                            |
| Xiaona Song                                                                                                                                                    | Henan Univ. of Science and Technology    | Jinbao Xu                                                                                                                          | Anhui Heli Co., Ltd.                                                |
| 15:45-17:45                                                                                                                                                    | D12.44                                   | Xingyao Han                                                                                                                        | Shanghai Jiao Tong Univ.                                            |
| <b>1091</b> <i>Full-mode flight control framework for a ducted-fan tail-sitter UAV</i>                                                                         |                                          |                                                                                                                                    |                                                                     |
| Chaoheng Meng                                                                                                                                                  | South China Univ. of Technology          | Zhe Liu                                                                                                                            | Shanghai Jiao Tong Univ.                                            |
| Hailong Pei                                                                                                                                                    | South China Univ. of Technology          | 15:45-17:45                                                                                                                        | D12.52                                                              |
| Zihuan Cheng                                                                                                                                                   | Guangdong Univ. of Technology            | <b>1277</b> <i>Risk-constrained heterogeneous multi-agent reinforcement learning for electronic warfare collaborative coverage</i> |                                                                     |
| Qingxi Tang                                                                                                                                                    | Guangdong Univ. of Technology            | Yunlei Wang                                                                                                                        | Shanghai Jiao Tong Univ.                                            |
| 15:45-17:45                                                                                                                                                    | D12.45                                   | Jinxuan Shi                                                                                                                        | Shanghai Jiao Tong Univ.                                            |
| <b>1122</b> <i>An FPGA-accelerated stereo visual SLAM front-end for UAV navigation</i>                                                                         |                                          |                                                                                                                                    |                                                                     |
| Na Xing                                                                                                                                                        | South China Univ. of Technology          | Fei Wang                                                                                                                           | Southwest China Research Institute of Electronic Equipment          |
|                                                                                                                                                                |                                          | Liang Li                                                                                                                           | Southwest China Research Institute of Electronic Equipment          |
|                                                                                                                                                                |                                          | Qian Su                                                                                                                            | Southwest China Research Institute of Electronic Equipment          |
|                                                                                                                                                                |                                          | Zhe Liu                                                                                                                            | Shanghai Jiao Tong Univ.                                            |
|                                                                                                                                                                |                                          | 15:45-17:45                                                                                                                        | D12.53                                                              |
|                                                                                                                                                                |                                          | <b>1577</b> <i>FedDETR: A federated object detection framework for</i>                                                             |                                                                     |

*infrastructure-assisted indoor robots*

|               |                       |
|---------------|-----------------------|
| Weizhao Qian  | Dalian Jiaotong Univ. |
| Xuesong Zhang | Dalian Jiaotong Univ. |
| 15:45-17:45   | D12.54                |

**1618** *Attention-enhanced hierarchical reinforcement learning for evasion decision-making under adversarial maritime tracking*

|             |                                                         |
|-------------|---------------------------------------------------------|
| Changjun Hu | Shanghai Marine Electronic Equipment Research Institute |
| Chang Zhou  | Shanghai Marine Electronic Equipment Research Institute |
| Anqi Guo    | Shanghai Jiao Tong Univ.                                |
| Yunlei Wang | Shanghai Jiao Tong Univ.                                |
| Zhe Liu     | Shanghai Jiao Tong Univ.                                |
| 15:45-17:45 | D12.55                                                  |

**706** *Robust tube control for strict repeat ground track maintenance of low-Earth-orbit satellites under execution uncertainty*

|               |                   |
|---------------|-------------------|
| Jiawei Wang   | Sun Yat-sen Univ. |
| Bingqi Li     | Sun Yat-sen Univ. |
| Xianqiang Luo | Sun Yat-sen Univ. |
| Jihe Wang     | Sun Yat-sen Univ. |
| 15:45-17:45   | D12.56            |

**800** *Constellation multi-objective optimal design method based on target grouping and mixed RGT orbit types*

|              |                   |
|--------------|-------------------|
| Dan Li       | Sun Yat-sen Univ. |
| Tianjie Liu  | Sun Yat-sen Univ. |
| Chenglong Xu | Sun Yat-sen Univ. |
| Jihe Wang    | Sun Yat-sen Univ. |
| 15:45-17:45  | D12.57            |

**1126** *Fencing control of heterogeneous Euler-Lagrange swarms with application to satellite formation*

|              |                   |
|--------------|-------------------|
| Zengning Lai | Sun Yat-sen Univ. |
| Cheng Liu    | Sun Yat-sen Univ. |
| Peipei Jin   | Sun Yat-sen Univ. |
| Fan Zhang    | Sun Yat-sen Univ. |
| 15:45-17:45  | D12.58            |

**1337** *Neural network disturbance observation for spacecraft pursuit-evasion relative motion estimation*

|             |                                      |
|-------------|--------------------------------------|
| Liwei Hao   | National Univ. of Defense Technology |
| Caizhi Fan  | National Univ. of Defense Technology |
| Li Zhang    | National Univ. of Defense Technology |
| 15:45-17:45 | D12.59                               |

**1364** *Model predictive control for approach of tumbling non-cooperative targets under multiple constraints*

|             |                                      |
|-------------|--------------------------------------|
| Pengxi Fan  | National Univ. of Defense Technology |
| Liwei Hao   | National Univ. of Defense Technology |
| Caizhi Fan  | National Univ. of Defense Technology |
| Zikai Zhong | National Univ. of Defense Technology |
| Xinchen Li  | National Univ. of Defense Technology |
| 15:45-17:45 | D12.60                               |

**1547** *Multi-loop robust control for single-axis satellite attitude with moment of inertia parameter variations*

|             |                                      |
|-------------|--------------------------------------|
| Li Zhang    | National Univ. of Defense Technology |
| 15:45-17:45 | D12.61                               |

**96** *基于容错卡尔曼滤波的无人机相对定位方法*

|               |                           |
|---------------|---------------------------|
| He Song       | Xi'an Aeronautical Univ.  |
| Youjian Zhang | Xi'an Technological Univ. |

|             |                                                        |
|-------------|--------------------------------------------------------|
| Rui Zhang   | China Flight Test Establishment                        |
| Chaobo Chen | Xi'an Technological Univ.                              |
| Hao Fan     | Xi'an Technological Univ.                              |
| Zhong Li    | Xi'an Aeronautical Univ.                               |
| Zhi Wang    | AVIC Xi'an Flight Automatic Control Research Institute |

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| 15:45-17:45 | D12.62 |
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**1575** *基于改进 SOM 的多无人机协同目标分配路径规划*

|              |                                                                 |
|--------------|-----------------------------------------------------------------|
| Jiaoru Huang | Xi'an Technological Univ.                                       |
| Yanjun Zhou  | Xi'an Technological Univ.                                       |
| Chaobo Chen  | Xi'an Technological Univ.                                       |
| Yushuang Liu | Beijing System Design Institute of Electro-mechanic Engineering |

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| 15:45-17:45 | D12.63 |
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**877** *面向 PAPI 灯校验的绳驱系留无人机自抗扰控制方法*

|             |                               |
|-------------|-------------------------------|
| Yapeng Wang | Civil Aviation Univ. of China |
| Xuqiao Wang | Civil Aviation Univ. of China |

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| 15:45-17:45 | D12.64 |
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**1198** *基于偏差约束束位姿锚定的航拍图像快速拼接算法*

|            |                               |
|------------|-------------------------------|
| Qijun Luo  | Civil Aviation Univ. of China |
| Jiaqi Shao | Civil Aviation Univ. of China |
| Yipei Wang | Civil Aviation Univ. of China |
| Ziyi Zhou  | Civil Aviation Univ. of China |

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| 15:45-17:45 | D12.65 |
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**1341** *LSE-YOLOv11: Navigation light pollutant identification based on an enhanced YOLOv11 approach*

|               |                               |
|---------------|-------------------------------|
| Dandan Hu     | Civil Aviation Univ. of China |
| Zhitao Ouyang | Civil Aviation Univ. of China |
| Guochen Niu   | Civil Aviation Univ. of China |

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| 15:45-17:45 | D12.66 |
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**1344** *RBC-DETR: An enhanced real-time detector for small object detection in airfield areas*

|             |                                                                        |
|-------------|------------------------------------------------------------------------|
| Guochen Niu | Civil Aviation Univ. of China                                          |
| Hui Xu      | Civil Aviation Univ. of China                                          |
| Xiangyu Sun | Shandong Airport Management Group Yantai International Airport Co.,Ltd |

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| 15:45-17:45 | D12.67 |
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**1346** *An algorithm for detecting crowds in airport terminals based on an improved YOLOv11n model*

|              |                               |
|--------------|-------------------------------|
| Dandan Hu    | Civil Aviation Univ. of China |
| Wenshuo Ding | Civil Aviation Univ. of China |
| Guochen Niu  | Civil Aviation Univ. of China |

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| 15:45-17:45 | D12.68 |
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**1471** *Whirl flutter analysis in different flight modes of tiltrotor aircraft*

|               |                                      |
|---------------|--------------------------------------|
| Mingchun Wang | Guangdong Univ. of Technology        |
| Ruilan Chang  | Guilin Univ. of Aerospace Technology |
| Yongjun Wang  | Guilin Univ. of Aerospace Technology |

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| 15:45-17:45 | D12.69 |
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**1167** *Adaptive sliding mode control for pitch angle of solar-powered UAV*

|               |                      |
|---------------|----------------------|
| Junwei Lei    | Naval Aviation Univ. |
| Heng Li       | Naval Aviation Univ. |
| Yuliang Cheng | Naval Aviation Univ. |
| Lingling Wang | Naval Aviation Univ. |

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| 15:45-17:45 | D12.70 |
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>1168</b> <i>A fuzzy variable structure-based method for rapid overload command tracking of supersonic aircraft</i>                                     |                                 | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| Junwei Lei                                                                                                                                                | Naval Aviation Univ.            | Xuan Xiao                                                                                                                           | Beijing Institute of Technology         |
| Heng Li                                                                                                                                                   | Naval Aviation Univ.            | 15:45-17:45                                                                                                                         | D12.78                                  |
| Lingling Wang                                                                                                                                             | Naval Aviation Univ.            | <b>950</b> <i>Ballistics-knowledge guided optical array measurement for high-spinning flight vehicle tests</i>                      |                                         |
| Yuliang Cheng                                                                                                                                             | Naval Aviation Univ.            | Jiatong Wu                                                                                                                          | Beijing Institute of Technology         |
| 15:45-17:45                                                                                                                                               | D12.71                          | Haocheng Peng                                                                                                                       | Beijing Institute of Technology         |
| <b>1218</b> <i>Multi-UAV cooperative target encirclement based on extrinsic-intrinsic reward MADDPG reinforcement learning</i>                            |                                 | Meng Zhang                                                                                                                          | Beijing Institute of Technology         |
| Qiwen Wang                                                                                                                                                | Naval Aviation Univ.            | Zhihong Deng                                                                                                                        | Beijing Institute of Technology         |
| Zhicai Xiao                                                                                                                                               | Naval Aviation Univ.            | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| Bei Qian                                                                                                                                                  | Naval Aviation Univ.            | 15:45-17:45                                                                                                                         | D12.79                                  |
| Defeng Sun                                                                                                                                                | Naval Aviation Univ.            | <b>1001</b> <i>A synergetic consensus framework for tracking and terminal guidance of swarm drones</i>                              |                                         |
| 15:45-17:45                                                                                                                                               | D12.72                          | Zheng Xu                                                                                                                            | Beijing Institute of Technology         |
| <b>1396</b> <i>多无人机协同在线航迹规划</i>                                                                                                                           |                                 | Hang Xiao                                                                                                                           | Beijing Institute of Technology         |
| Gaoyang Yi                                                                                                                                                | Naval Aviation Univ.            | Hao Zhang                                                                                                                           | Beijing Institute of Technology         |
| Zhicai Xiao                                                                                                                                               | Naval Aviation Univ.            | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| Luyu Liu                                                                                                                                                  | Naval Aviation Univ.            | 15:45-17:45                                                                                                                         | D12.80                                  |
| 15:45-17:45                                                                                                                                               | D12.73                          | <b>1009</b> <i>A robust multi-sensor data fusion algorithm for high-spinning flight vehicles</i>                                    |                                         |
| <b>1407</b> <i>Fuzzy-based dynamic event-triggered formation control of manned-unmanned aerial team with prescribed-time</i>                              |                                 | Mengzhuo Xu                                                                                                                         | Beijing Institute of Technology         |
| Ning Wang                                                                                                                                                 | Naval Aviation Univ.            | Xinye Zhang                                                                                                                         | Beijing Institute of Technology         |
| Zehao Yuan                                                                                                                                                | Naval Aviation Univ.            | Yanxing Xu                                                                                                                          | Beijing Institute of Technology         |
| Jianhua Lu                                                                                                                                                | Naval Aviation Univ.            | Zhihong Deng                                                                                                                        | Beijing Institute of Technology         |
| Xiaolin Wang                                                                                                                                              | Naval Aviation Univ.            | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| 15:45-17:45                                                                                                                                               | D12.74                          | 15:45-17:45                                                                                                                         | D12.81                                  |
| <b>1416</b> <i>Fault-tolerant formation control of multi-UAV systems based on distributed augmented state observer under jointly connected topologies</i> |                                 | <b>1110</b> <i>A dynamic roll-isolation model for dual-spinning projectiles</i>                                                     |                                         |
| Bei Qian                                                                                                                                                  | Naval Aviation Univ.            | Meng Zhang                                                                                                                          | Beijing Institute of Technology         |
| Xianjun Shi                                                                                                                                               | Naval Aviation Univ.            | Jiatong Wu                                                                                                                          | Beijing Institute of Technology         |
| Zhicai Xiao                                                                                                                                               | Naval Aviation Univ.            | Mengzhuo Xu                                                                                                                         | Beijing Institute of Technology         |
| Gaoyang Yin                                                                                                                                               | Naval Aviation Univ.            | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| Defeng Sun                                                                                                                                                | Naval Aviation Univ.            | Zhihong Deng                                                                                                                        | Beijing Institute of Technology         |
| Qiwen Wang                                                                                                                                                | Naval Aviation Univ.            | 15:45-17:45                                                                                                                         | D12.82                                  |
| 15:45-17:45                                                                                                                                               | D12.75                          | <b>1163</b> <i>Physics-informed effective horizontal wind-context identification for high-spinning flight vehicles</i>              |                                         |
| <b>503</b> <i>State-dependent guidance and control for high-spinning flight vehicles</i>                                                                  |                                 | Haocheng Peng                                                                                                                       | Beijing Institute of Technology         |
| Xinye Zhang                                                                                                                                               | Beijing Institute of Technology | Mengzhuo Xu                                                                                                                         | Beijing Institute of Technology         |
| Kai Shen                                                                                                                                                  | Beijing Institute of Technology | Xinrui Luo                                                                                                                          | Beijing Institute of Technology         |
| Yingxin Liu                                                                                                                                               | Beijing Institute of Technology | Kai Shen                                                                                                                            | Beijing Institute of Technology         |
| Zhengyu Wu                                                                                                                                                | Beijing Institute of Technology | Zhihong Deng                                                                                                                        | Beijing Institute of Technology         |
| 15:45-17:45                                                                                                                                               | D12.76                          | 15:45-17:45                                                                                                                         | D12.83                                  |
| <b>742</b> <i>A LiDAR-based integrated navigation and formation maintenance method for UAV swarms</i>                                                     |                                 | <b>1285</b> <i>Trajectory-based platform recognition of rotary-wing-like and fixed-wing-like UAVs for low-altitude surveillance</i> |                                         |
| Qinglan Tu                                                                                                                                                | Beijing Institute of Technology | Junhan Zhang                                                                                                                        | Nanjing Univ. of Science and Technology |
| Kai Shen                                                                                                                                                  | Beijing Institute of Technology | Liangming Wang                                                                                                                      | Nanjing Univ. of Science and Technology |
| Yuxuan Duan                                                                                                                                               | Beijing Institute of Technology | Jian Fu                                                                                                                             | Nanjing Univ. of Science and Technology |
| Hao Zhang                                                                                                                                                 | Beijing Institute of Technology | Zhi Chen                                                                                                                            | Shanghai Univ.                          |
| Zihao Wei                                                                                                                                                 | Beijing Institute of Technology | Jinghao Gong                                                                                                                        | Nanjing Univ. of Science and Technology |
| Xuan Xiao                                                                                                                                                 | Beijing Institute of Technology | 15:45-17:45                                                                                                                         | D12.84                                  |
| 15:45-17:45                                                                                                                                               | D12.77                          | <b>1411</b> <i>Attitude control method for missile-borne coaxial UAV based on NTSMC</i>                                             |                                         |
| <b>773</b> <i>A dynamic task allocation method of UAV swarms based on semantic-driven control of LLMs</i>                                                 |                                 | Yiwei Zhang                                                                                                                         | Nanjing Univ. of Science and Technology |
| Zihao Wei                                                                                                                                                 | Beijing Institute of Technology | Jian Fu                                                                                                                             | Nanjing Univ. of Science and Technology |
| Hao Zhang                                                                                                                                                 | Beijing Institute of Technology | Zhi Chen                                                                                                                            | Shanghai Univ.                          |
| Yiheng Yang                                                                                                                                               | Beijing Institute of Technology | Kailai Hao                                                                                                                          | Nanjing Univ. of Science and Technology |
|                                                                                                                                                           |                                 | 15:45-17:45                                                                                                                         | D12.85                                  |
|                                                                                                                                                           |                                 | <b>1506</b> <i>UAV target recognition algorithm based on a lightweight</i>                                                          |                                         |

*improved YOLOv11*

|              |                                         |
|--------------|-----------------------------------------|
| Jinghao Gong | Nanjing Univ. of Science and Technology |
| Jian Fu      | Nanjing Univ. of Science and Technology |
| Zhi Chen     | Shanghai Univ.                          |
| Junhan Zhang | Nanjing Univ. of Science and Technology |
| 15:45-17:45  | D12.86                                  |

**1568** *Covariance-driven cross-layer modulation for multi-agent cooperative trajectory keeping under communication constraints*

|             |                                         |
|-------------|-----------------------------------------|
| Siqi Zhou   | Nanjing Univ. of Science and Technology |
| Jie Zhou    | Nanjing Univ. of Science and Technology |
| Jian Fu     | Nanjing Univ. of Science and Technology |
| Zhi Chen    | Shanghai Univ.                          |
| 15:45-17:45 | D12.87                                  |

**758** *Bilateral cooperative landing control for nondestructive mobile recovery of a landing-gear-free unmanned aerial vehicle*

|              |                                  |
|--------------|----------------------------------|
| Xinyu Yu     | Northwestern Polytechnical Univ. |
| Gangqi Dong  | Northwestern Polytechnical Univ. |
| Wenjuan Wang | Third Academy, CASIC             |
| Hongzhong Ma | Third Academy, CASIC             |
| 15:45-17:45  | D12.88                           |

**882** *基于混合图注意力与威胁交叉感知的多无人机协同控制研究*

|              |                                             |
|--------------|---------------------------------------------|
| Wenjia Miao  | Hiwing Aviation General Equipment Co., Ltd. |
| Wenjuan Wang | Hiwing Aviation General Equipment Co., Ltd. |
| 15:45-17:45  | D12.89                                      |

**1584** *Research on precise flight control technology of indoor quad-rotor UAV based on improved cascade PID algorithm*

|              |                      |
|--------------|----------------------|
| Zhen Wang    | Naval Aviation Univ. |
| Luyu Liu     | Naval Aviation Univ. |
| Shangcong Li | Naval Aviation Univ. |
| 15:45-17:45  | D12.90               |

**761** *Shaping DMP dynamics with embedded impedance for proactive teleoperation shared control*

|             |                                                |
|-------------|------------------------------------------------|
| Xin Huang   | Central South Univ. of Forestry and Technology |
| Haifei Chen | Central South Univ. of Forestry and Technology |
| Zhiwen He   | Central South Univ. of Forestry and Technology |
| 15:45-17:45 | D12.91                                         |

**910** *REDC-Net: Rotation-equivariant prior denoising and deep clustering for low-light robotic grasp detection*

|              |              |
|--------------|--------------|
| Jiamin Zhang | Shanxi Univ. |
| Zixin Guan   | Shanxi Univ. |
| Jing Yang    | Shanxi Univ. |
| Lu Chen      | Shanxi Univ. |
| 15:45-17:45  | D12.92       |

**1053** *Interactive mission-conditional online estimation of the zone of proximal development for robot-assisted skill training*

|             |                                                          |
|-------------|----------------------------------------------------------|
| Yang Yang   | Xi'an Shiyou Univ.                                       |
| Shaofan Guo | Institute of Xi'an Aerospace Solid Propulsion Technology |
| 15:45-17:45 | D12.93                                                   |

**1142** *Enhancing long-horizon robotic task reasoning with large language models for ambiguous human instructions*

|        |                                  |
|--------|----------------------------------|
| Qi Guo | Northwestern Polytechnical Univ. |
|--------|----------------------------------|

|                |                                  |
|----------------|----------------------------------|
| Mingchao Qi    | Northwestern Polytechnical Univ. |
| Xing Liu       | Northwestern Polytechnical Univ. |
| Zhengxiong Liu | Northwestern Polytechnical Univ. |
| Panfeng Huang  | Northwestern Polytechnical Univ. |

|             |        |
|-------------|--------|
| 15:45-17:45 | D12.94 |
|-------------|--------|

**1209** *Cross-sensor hardness recognition method based on the TacQuad dataset*

|                |                                 |
|----------------|---------------------------------|
| Muzi Ding      | Nantong Univ.                   |
| Yi Ni          | South China Univ. of Technology |
| Sihan Zhang    | South China Univ. of Technology |
| Qing Xu        | Nantong Univ.                   |
| Xiaofeng Zhang | Nantong Univ.                   |
| Zhenyu Lu      | South China Univ. of Technology |

|             |        |
|-------------|--------|
| 15:45-17:45 | D12.95 |
|-------------|--------|

**1725** *Multi-modal human-robot collaborative operation concept for lunar energy station assembly*

|              |                                                    |
|--------------|----------------------------------------------------|
| Chen Meng    | National Key Laboratory of Aerospace Mechanism     |
| Yang Gao     | National Key Laboratory of Aerospace Mechanism     |
| Weijun Wang  | National Key Laboratory of Aerospace Mechanism     |
| Yu Zhang     | Institute of Aerospace System Engineering Shanghai |
| Junfeng Wang | Huazhong Univ. of Science and Technology           |
| Chenkun Qi   | Shanghai Jiao Tong Univ.                           |

|             |        |
|-------------|--------|
| 15:45-17:45 | D12.96 |
|-------------|--------|

**832** *Prescribed-time sliding mode control for roll stabilization of guided flight vehicle*

|             |                                            |
|-------------|--------------------------------------------|
| Wenhui Ma   | Xi'an Technological Univ.                  |
| Jiahui Hong | China Academy of Launch Vehicle Technology |
| 15:45-17:45 | D12.97                                     |

**1000** *基于反向同步机制的交接班协同覆盖一体化设计*

|              |                                      |
|--------------|--------------------------------------|
| Xianhai Feng | Air Force Engineering Univ.          |
| Jiong Li     | Air Force Engineering Univ.          |
| Shuangxi Liu | National Univ. of Defense Technology |
| Jikun Ye     | Air Force Engineering Univ.          |

|             |        |
|-------------|--------|
| 15:45-17:45 | D12.98 |
|-------------|--------|

**1074** *变形飞行器事件触发柔性预设性能控制方法研究*

|             |                                  |
|-------------|----------------------------------|
| Hao Zhang   | Northwestern Polytechnical Univ. |
| Wenxing Fu  | Northwestern Polytechnical Univ. |
| 15:45-17:45 | D12.99                           |

**1240** *双锥体高速滑翔飞行器综合性能分析*

|              |              |
|--------------|--------------|
| Yushuo Mao   | Xidian Univ. |
| Ziyang Chang | Xidian Univ. |
| Jin Qi       | Xidian Univ. |
| Dongzhu Feng | Xidian Univ. |
| Pei Dai      | Xidian Univ. |

|             |         |
|-------------|---------|
| 15:45-17:45 | D12.100 |
|-------------|---------|

**1613** *Modular integration method for modular microsatellite components*

|              |                                  |
|--------------|----------------------------------|
| Hao Zhang    | Northwestern Polytechnical Univ. |
| Guanghui Liu | Northwestern Polytechnical Univ. |
| Jun Zhou     | Northwestern Polytechnical Univ. |
| 15:45-17:45  | D12.101                          |

|                                                                                                                                                                              |                                                     |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--|--|
| <b>223</b> <i>Dynamic Allan variance-based noise characterization of MHD angular rate sensors</i>                                                                            |                                                     |  |  |
| Cui Guo                                                                                                                                                                      | Tiangong Univ.                                      |  |  |
| Yue Ji                                                                                                                                                                       | Tiangong Univ.                                      |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.102                                             |  |  |
| <b>791</b> <i>Cooperative encirclement of multi-agent systems in cross-domain environments based on MADDPG-CH</i>                                                            |                                                     |  |  |
| Fen Zhao                                                                                                                                                                     | Tiangong Univ.                                      |  |  |
| Xin Liu                                                                                                                                                                      | Tiangong Univ.                                      |  |  |
| Ditai Wang                                                                                                                                                                   | Tiangong Univ.                                      |  |  |
| Chenyang Yao                                                                                                                                                                 | Tiangong Univ.                                      |  |  |
| Hui Xiong                                                                                                                                                                    | Tiangong Univ.                                      |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.103                                             |  |  |
| <b>1292</b> <i>Safe path planning based on JPS-PFDWA algorithm for quadrotor helicopters in dynamic environments</i>                                                         |                                                     |  |  |
| Jianchuan Guo                                                                                                                                                                | Tiangong Univ.                                      |  |  |
| Yifan Li                                                                                                                                                                     | Tiangong Univ.                                      |  |  |
| Yufan Shi                                                                                                                                                                    | Tiangong Univ.                                      |  |  |
| Yafang Yang                                                                                                                                                                  | Tiangong Univ.                                      |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.104                                             |  |  |
| <b>629</b> <i>Apollonius-based deployment strategies in multi-agent reach-avoid games</i>                                                                                    |                                                     |  |  |
| Liang Huang                                                                                                                                                                  | Beihang Univ.                                       |  |  |
| Xuwen Chen                                                                                                                                                                   | Systems Engineering Research Institute, CSSC        |  |  |
| Zilu Chen                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| Liang Han                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.105                                             |  |  |
| <b>951</b> <i>Observability-aware trajectory optimization for monocular vision-based UAV interception</i>                                                                    |                                                     |  |  |
| Guojun Shen                                                                                                                                                                  | Beihang Univ.                                       |  |  |
| Zilu Chen                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| Liang Han                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.106                                             |  |  |
| <b>1146</b> <i>Large language model-driven threat assessment and multi-UAV task allocation</i>                                                                               |                                                     |  |  |
| Junhao Zhang                                                                                                                                                                 | Beihang Univ.                                       |  |  |
| Zilu Chen                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| Liang Han                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.107                                             |  |  |
| <b>426</b> <i>Integrated acoustic positioning and adaptive control for unmanned underwater vehicles with uncertainty</i>                                                     |                                                     |  |  |
| Dong Liu                                                                                                                                                                     | Institute of Acoustics, Chinese Academy of Sciences |  |  |
| Zhaohui Peng                                                                                                                                                                 | Institute of Acoustics, Chinese Academy of Sciences |  |  |
| Tongchen Wang                                                                                                                                                                | Institute of Acoustics, Chinese Academy of Sciences |  |  |
| Ziwei Zhao                                                                                                                                                                   | Institute of Acoustics, Chinese Academy of Sciences |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.108                                             |  |  |
| <b>624</b> <i>Complex network modeling of interdependent sensors and control systems in flight control systems</i>                                                           |                                                     |  |  |
| Shuo Wang                                                                                                                                                                    | Beijing Technology and Business Univ.               |  |  |
| Xiaoyu Cui                                                                                                                                                                   | Beijing Technology and Business Univ.               |  |  |
| Zhiyao Zhao                                                                                                                                                                  | Beijing Technology and Business Univ.               |  |  |
| Li Wang                                                                                                                                                                      | Beijing Technology and Business Univ.               |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.109                                             |  |  |
| <b>416</b> <i>Fully adaptive fixed-time control of underwater manipulators considering asymmetric actuator saturation and unknown time-varying hydrodynamic disturbances</i> |                                                     |  |  |
| Linfeng Chen                                                                                                                                                                 | Nantong Univ.                                       |  |  |
| Shiyi Li                                                                                                                                                                     | Nantong Univ.                                       |  |  |
| Yelu Gu                                                                                                                                                                      | Nantong Univ.                                       |  |  |
| Qiuyue Qin                                                                                                                                                                   | Nantong Univ.                                       |  |  |
| Xingjian Sun                                                                                                                                                                 | Nantong Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.110                                             |  |  |
| <b>450</b> <i>UAV path planning based on adaptive chaotic turbulent particle swarm optimization</i>                                                                          |                                                     |  |  |
| Shiyi Li                                                                                                                                                                     | Nantong Univ.                                       |  |  |
| Linfeng Chen                                                                                                                                                                 | Nantong Univ.                                       |  |  |
| Xinyi Lu                                                                                                                                                                     | Nantong Univ.                                       |  |  |
| Liwang Huang                                                                                                                                                                 | Nantong Univ.                                       |  |  |
| Xingjian Sun                                                                                                                                                                 | Nantong Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.111                                             |  |  |
| <b>1127</b> <i>Physics-constrained deep reinforcement learning for efficient, low-carbon, and reliable operation of data center microgrids</i>                               |                                                     |  |  |
| Shen Li                                                                                                                                                                      | Nanjing Univ. of Posts and Telecommunications       |  |  |
| Leyi Xu                                                                                                                                                                      | Nanjing Univ. of Posts and Telecommunications       |  |  |
| Yunqi Wang                                                                                                                                                                   | Nanjing Univ. of Posts and Telecommunications       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.112                                             |  |  |
| <b>1205</b> <i>Adaptive deployment and rapid response for multi-UAVs assisted maritime ISAC network</i>                                                                      |                                                     |  |  |
| Aoji Zhang                                                                                                                                                                   | Zhengzhou Univ.                                     |  |  |
| Meng Liu                                                                                                                                                                     | Zhengzhou Univ.                                     |  |  |
| Hongyan Dui                                                                                                                                                                  | Zhengzhou Univ.                                     |  |  |
| Dongming Fan                                                                                                                                                                 | Beihang Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.113                                             |  |  |
| <b>1714</b> <i>Time-energy trade-offs in fixed-wing multi-UAV formation reconfiguration</i>                                                                                  |                                                     |  |  |
| Wenliang Zhang                                                                                                                                                               | Beihang Univ.                                       |  |  |
| Xingshuo Hai                                                                                                                                                                 | Beihang Univ.                                       |  |  |
| Xing Guo                                                                                                                                                                     | Beihang Univ.                                       |  |  |
| Qiang Feng                                                                                                                                                                   | Beihang Univ.                                       |  |  |
| Zili Wang                                                                                                                                                                    | Beihang Univ.                                       |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.114                                             |  |  |
| <b>627</b> <i>Reinforcement learning-assisted artificial hummingbird algorithm for drone path planning in urban environments</i>                                             |                                                     |  |  |
| Xiaoyang Jin                                                                                                                                                                 | Central South Univ.                                 |  |  |
| Yong Yu                                                                                                                                                                      | Central South Univ.                                 |  |  |
| Quanli Guan                                                                                                                                                                  | Central South Univ.                                 |  |  |
| Xing Gao                                                                                                                                                                     | Central South Univ.                                 |  |  |
| Yuxin Liao                                                                                                                                                                   | Central South Univ.                                 |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.115                                             |  |  |
| <b>656</b> <i>Rapid assessment of evasion zone for vehicles under maneuver constraints</i>                                                                                   |                                                     |  |  |
| Guansheng Liu                                                                                                                                                                | National Univ. of Defense Technology                |  |  |
| Xiang Zhou                                                                                                                                                                   | National Univ. of Defense Technology                |  |  |
| Wei Zheng                                                                                                                                                                    | National Univ. of Defense Technology                |  |  |
| 15:45-17:45                                                                                                                                                                  | D12.116                                             |  |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--|
| <b>808</b> <i>Bi-planar guidance method for terminal phase pursuit-evasion of high-speed vehicles based on genetic algorithm</i>                 |                                                                    |  |
| Yiwen Mu                                                                                                                                         | National Univ. of Defense Technology                               |  |
| Xiang Zhou                                                                                                                                       | National Univ. of Defense Technology                               |  |
| Nengwu Tao                                                                                                                                       | National Univ. of Defense Technology                               |  |
| Guojian Tang                                                                                                                                     | National Univ. of Defense Technology                               |  |
| 15:45-17:45                                                                                                                                      | D12.117                                                            |  |
| <b>1507</b> <i>Efficient construction of safe flight corridors and trajectory planning for quadrotor UAVs in complex 3D environments</i>         |                                                                    |  |
| Hang Ning                                                                                                                                        | National Univ. of Defense Technology                               |  |
| Wenjie Zhu                                                                                                                                       | National Univ. of Defense Technology                               |  |
| Xiang Zhou                                                                                                                                       | National Univ. of Defense Technology                               |  |
| Hongbo Zhang                                                                                                                                     | National Univ. of Defense Technology                               |  |
| 15:45-17:45                                                                                                                                      | D12.118                                                            |  |
| <b>1654</b> <i>Approximate analytical solution for ascent trajectory based on homotopy perturbation method</i>                                   |                                                                    |  |
| Shen Zheng                                                                                                                                       | National Univ. of Defense Technology                               |  |
| Yangang Liang                                                                                                                                    | National Univ. of Defense Technology                               |  |
| Jianyong Zhou                                                                                                                                    | National Univ. of Defense Technology                               |  |
| Kebo Li                                                                                                                                          | National Univ. of Defense Technology                               |  |
| 15:45-17:45                                                                                                                                      | D12.119                                                            |  |
| <b>1476</b> <i>Vulnerability analysis of distributed state estimation against dual stealthy false data injection attacks on network edges</i>    |                                                                    |  |
| Zixian Wu                                                                                                                                        | Southeast Univ.                                                    |  |
| Guanzheng Zhang                                                                                                                                  | Southeast Univ.                                                    |  |
| Wenyong Xu                                                                                                                                       | Southeast Univ.                                                    |  |
| Xia Wu                                                                                                                                           | Southeast Univ.                                                    |  |
| 15:45-17:45                                                                                                                                      | D12.120                                                            |  |
| <b>1484</b> <i>Deadlock resolution in distributed multi-agent trajectory planning via a comprehensive priority model</i>                         |                                                                    |  |
| Jingyu Chen                                                                                                                                      | Southeast Univ.                                                    |  |
| Bozhen Qian                                                                                                                                      | Southeast Univ.                                                    |  |
| Honghaotian Guan                                                                                                                                 | Southeast Univ.                                                    |  |
| Wenyong Xu                                                                                                                                       | Southeast Univ.                                                    |  |
| 15:45-17:45                                                                                                                                      | D12.121                                                            |  |
| <b>1679</b> <i>Quantile-filtered clock synchronization under asymmetric network delays</i>                                                       |                                                                    |  |
| Jichun Zhu                                                                                                                                       | Southeast Univ.                                                    |  |
| He Wang                                                                                                                                          | Southeast Univ.                                                    |  |
| Wenwu Yu                                                                                                                                         | Southeast Univ.                                                    |  |
| 15:45-17:45                                                                                                                                      | D12.122                                                            |  |
| <b>770</b> <i>Adaptive robust visual-inertial odometry for highly dynamic maneuvering environments</i>                                           |                                                                    |  |
| Kaiwen Yang                                                                                                                                      | Xi'an Univ. of Technology                                          |  |
| Zijie He                                                                                                                                         | Xi'an Univ. of Technology                                          |  |
| Lingxia Mu                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| Ban Wang                                                                                                                                         | Northwestern Polytechnical Univ.                                   |  |
| Nan Feng                                                                                                                                         | Univ. of Science and Technology Beijing                            |  |
| Xianghong Xue                                                                                                                                    | Xi'an Univ. of Technology                                          |  |
| 15:45-17:45                                                                                                                                      | D12.123                                                            |  |
| <b>782</b> <i>Cooperative transportation method for multiple UAVs under unknown wind disturbances</i>                                            |                                                                    |  |
| Bin Yuan                                                                                                                                         | Xi'an Univ. of Technology                                          |  |
| Xianghong Xue                                                                                                                                    | Xi'an Univ. of Technology                                          |  |
| Chen zhang                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| Yingmin Yi                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| Yumin Zhang                                                                                                                                      | Concordia Univ.                                                    |  |
| Lingxia Mu                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| 15:45-17:45                                                                                                                                      | D12.124                                                            |  |
| <b>783</b> <i>Cooperative control of multiple UAVs for suspended payload transportation under input saturation constraints</i>                   |                                                                    |  |
| Bin Yuan                                                                                                                                         | Xi'an Univ. of Technology                                          |  |
| Xianghong Xue                                                                                                                                    | Xi'an Univ. of Technology                                          |  |
| Xinran Wang                                                                                                                                      | Xi'an Univ. of Technology                                          |  |
| Yingmin Yi                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| Yumin Zhang                                                                                                                                      | Concordia Univ.                                                    |  |
| Lingxia Mu                                                                                                                                       | Xi'an Univ. of Technology                                          |  |
| 15:45-17:45                                                                                                                                      | D12.125                                                            |  |
| <b>841</b> <i>Predefined-time adaptive sliding mode-based attitude control for hybrid VTOL UAV under model uncertainties and actuator faults</i> |                                                                    |  |
| Mengqi Zhou                                                                                                                                      | Northwestern Polytechnical Univ.                                   |  |
| Ban Wang                                                                                                                                         | Northwestern Polytechnical Univ.                                   |  |
| 15:45-17:45                                                                                                                                      | D12.126                                                            |  |
| <b>1197</b> <i>Fuel-optimal rocket attitude planning based on nonconvex optimization</i>                                                         |                                                                    |  |
| Jiyu Sun                                                                                                                                         | Beihang Univ.                                                      |  |
| Liang Yan                                                                                                                                        | Beihang Univ.                                                      |  |
| Xiaoshan Gao                                                                                                                                     | Beihang Univ.                                                      |  |
| Han Wang                                                                                                                                         | Beijing Institute of Technology                                    |  |
| 15:45-17:45                                                                                                                                      | D12.127                                                            |  |
| <b>1483</b> <i>MLK-YOLO: Efficient object detection via multi-scale large kernel attention and global-local feature evolution</i>                |                                                                    |  |
| Xing Han                                                                                                                                         | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| Junhui Li                                                                                                                                        | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| Yue Zhang                                                                                                                                        | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| Tianling Zhang                                                                                                                                   | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| Wenkai Yan                                                                                                                                       | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| Huan Jin                                                                                                                                         | State Grid Electric Power Engineering Research Institute Co., Ltd. |  |
| 15:45-17:45                                                                                                                                      | D12.128                                                            |  |
| <b>1525</b> <i>Restructuring and teaching practice of modern robotics technology from the perspective of undergraduate-graduate integration</i>  |                                                                    |  |
| Xiaoshan Gao                                                                                                                                     | Beihang Univ.                                                      |  |
| Liang Yan                                                                                                                                        | Beihang Univ.                                                      |  |
| Yang Li                                                                                                                                          | Beihang Univ.                                                      |  |
| 15:45-17:45                                                                                                                                      | D12.129                                                            |  |
| <b>296</b> <i>Dynamic predefined-time control based on deep reinforcement learning for hypersonic morphing vehicle</i>                           |                                                                    |  |
| Lei Cui                                                                                                                                          | Univ. of Science and Technology Beijing                            |  |
| Chenguang Han                                                                                                                                    | Univ. of Science and Technology Beijing                            |  |
| 15:45-17:45                                                                                                                                      | D12.130                                                            |  |
| <b>805</b> <i>PSO-enhanced adaptive filtering and nonlinear predictive control for robust UAV trajectory tracking under wind and noise</i>       |                                                                    |  |
| Taishan Lou                                                                                                                                      | Aerospace Information Technology Univ.                             |  |
| Lai Wei                                                                                                                                          | Zhengzhou Univ. of Light Industry                                  |  |
| Yuzhao Jiao                                                                                                                                      | Zhengzhou Univ. of Light Industry                                  |  |

|                                                                                                                                           |                                                                                          |                                                                                                                          |                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Guoqiang Ding                                                                                                                             | Zhengzhou Univ. of Light Industry                                                        | Bingda Tong                                                                                                              | Chinese Aeronautical Establishment                       |
| 15:45-17:45                                                                                                                               | D12.131                                                                                  | Jing He                                                                                                                  | Chinese Aeronautical Establishment                       |
| <b>1308</b> Hierarchical RL-adaptive MPC-CBF for safe navigation in narrow passages                                                       |                                                                                          | Jiaqiang Zhu                                                                                                             | Chinese Aeronautical Establishment                       |
| Jiatao Hu                                                                                                                                 | Nanjing Univ. of Aeronautics and Astronautics                                            | 15:45-17:45                                                                                                              | D12.138                                                  |
| Weizheng Cheng                                                                                                                            | National Key Laboratory of Avionics Integration and Aviation System-of-Systems Synthesis | <b>468</b> Impact speed and angle constrained guidance law under drag uncertainty for gliding vehicle                    |                                                          |
| Xiuhui Peng                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics                                            | Xinwan Kong                                                                                                              | Shanghai Mechanical and Electrical Engineering Institute |
| Lei Cui                                                                                                                                   | Univ. of Science and Technology Beijing                                                  | Jin Huang                                                                                                                | Shanghai Mechanical and Electrical Engineering Institute |
| 15:45-17:45                                                                                                                               | D12.132                                                                                  | Changyu Bi                                                                                                               | Beijing Institute of Technology                          |
| <b>1680</b> Three-dimensional urban UAV path planning based on chaotic particle swarm optimization algorithm                              |                                                                                          | Tingneng Fu                                                                                                              | Shanghai Mechanical and Electrical Engineering Institute |
| Jin Xing                                                                                                                                  | Shandong Univ. of Aeronautics                                                            | 15:45-17:45                                                                                                              | D12.139                                                  |
| Zhixiang Sun                                                                                                                              | Shandong Univ. of Aeronautics                                                            | <b>506</b> Obstacle avoidance trajectory planning for Mars landing based on graphs of convex sets                        |                                                          |
| Xianli Yu                                                                                                                                 | Jilin Univ.                                                                              | Chunzheng Guo                                                                                                            | Harbin Institute of Technology                           |
| Fangfang Zhang                                                                                                                            | Qilu Univ. of Technology (Shandong Academy of Sciences)                                  | Honglong Kang                                                                                                            | Beijing Aerospace Automatic Control Institute            |
| Haikun Wang                                                                                                                               | Shandong Univ. of Aeronautics                                                            | Pengyu Wang                                                                                                              | Harbin Institute of Technology                           |
| Xinxue Zhao                                                                                                                               | Shandong Univ. of Aeronautics                                                            | Yuhan Liu                                                                                                                | Harbin Institute of Technology                           |
| 15:45-17:45                                                                                                                               | D12.133                                                                                  | Yanning GUO                                                                                                              | Harbin Institute of Technology                           |
| <b>425</b> An actuator-constrained impact-time-and-angle guidance law via variable-gain geometry and CLF correction                       |                                                                                          | 15:45-17:45                                                                                                              | D12.140                                                  |
| Ruihan Hou                                                                                                                                | Univ. of Sanya                                                                           | <b>1048</b> Large-angle-of-attack underactuated control of near-space vehicle based on online LCDP feedback              |                                                          |
| Xueyong Ding                                                                                                                              | Univ. of Sanya                                                                           | Shouyuan Qian                                                                                                            | National Key Laboratory of Near-space Physics            |
| 15:45-17:45                                                                                                                               | D12.134                                                                                  | Lin Chen                                                                                                                 | National Key Laboratory of Near-space Physics            |
| <b>1505</b> On distributed integrated flight/propulsion control for V/STOL aircraft                                                       |                                                                                          | Xiaoming Guo                                                                                                             | National Key Laboratory of Near-space Physics            |
| Mingyuan Yang                                                                                                                             | Tsinghua Univ.                                                                           | 15:45-17:45                                                                                                              | D12.141                                                  |
| Shengyi Liu                                                                                                                               | Tsinghua Univ.                                                                           | <b>1170</b> Decoupled pre-allocation of UAV tasks based on PSO and A* algorithm                                          |                                                          |
| Feng Xu                                                                                                                                   | Tsinghua Univ.                                                                           | Zuotao Song                                                                                                              | National Univ. of Defense Technology                     |
| Hao Xu                                                                                                                                    | Tsinghua Univ.                                                                           | Yunchong Zhu                                                                                                             | National Univ. of Defense Technology                     |
| Jihong Zhu                                                                                                                                | Tsinghua Univ.                                                                           | Weilin Wang                                                                                                              | Space Engineering Univ.                                  |
| Xiangyang Wang                                                                                                                            | Tsinghua Univ.                                                                           | Yangang Liang                                                                                                            | National Univ. of Defense Technology                     |
| 15:45-17:45                                                                                                                               | D12.135                                                                                  | Kebo Li                                                                                                                  | National Univ. of Defense Technology                     |
| <b>1541</b> $\eta$ -spectral control barrier functions: Computation-geometry duality for fixed-time envelope protection of STOVL aircraft |                                                                                          | 15:45-17:45                                                                                                              | D12.142                                                  |
| Hao Xu                                                                                                                                    | Tsinghua Univ.                                                                           | <b>1269</b> Integrating instance segmentation for semantic mapping and path planning of indoor UAVs                      |                                                          |
| Shengyi Liu                                                                                                                               | Tsinghua Univ.                                                                           | Zan Zhang                                                                                                                | Beijing Institute of Technology                          |
| Feng Xu                                                                                                                                   | Tsinghua Univ.                                                                           | Jiang Wang                                                                                                               | Beijing Institute of Technology                          |
| Mingyuan Yang                                                                                                                             | Tsinghua Univ.                                                                           | 15:45-17:45                                                                                                              | D12.143                                                  |
| Jihong Zhu                                                                                                                                | Tsinghua Univ.                                                                           | <b>1401</b> Robust trajectory optimization for parafoil homing under hybrid uncertainty using polynomial chaos expansion |                                                          |
| Xiangyang Wang                                                                                                                            | Tsinghua Univ.                                                                           | Yilan Bai                                                                                                                | National Univ. of Defense Technology                     |
| 15:45-17:45                                                                                                                               | D12.136                                                                                  | Mengying Zhang                                                                                                           | National Univ. of Defense Technology                     |
| <b>641</b> An improved invasive weed optimization framework for cooperative UAV path planning in complex surveillance environments        |                                                                                          | Yangang Liang                                                                                                            | National Univ. of Defense Technology                     |
| Qisong Han                                                                                                                                | Air Force Engineering Univ.                                                              | Kebo Li                                                                                                                  | National Univ. of Defense Technology                     |
| Xiaofan Hou                                                                                                                               | Air Force Engineering Univ.                                                              | 15:45-17:45                                                                                                              | D12.144                                                  |
| Danya Liang                                                                                                                               | Air Force Engineering Univ.                                                              | <b>497</b> A robust MARL method for multi-satellite pursuit-evasion games                                                |                                                          |
| Jixiang Tao                                                                                                                               | Air Force Engineering Univ.                                                              | Baoyi Cui                                                                                                                | Harbin Institute of Technology                           |
| Yan Lv                                                                                                                                    | Air Force Engineering Univ.                                                              | Ke Chen                                                                                                                  | Harbin Institute of Technology                           |
| 15:45-17:45                                                                                                                               | D12.137                                                                                  | Xin Ren                                                                                                                  | Harbin Institute of Technology                           |
| <b>1710</b> A SysML-Modelica co-modeling and simulation method based on DDS communication                                                 |                                                                                          |                                                                                                                          |                                                          |

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|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Youmin Gong                                                                                                                               | Harbin Institute of Technology                       | Jiacheng Li                                                                                                                          | Harbin Institute of Technology                      |
| Yanning Guo                                                                                                                               | Harbin Institute of Technology                       | Junzhi Cheng                                                                                                                         | Harbin Institute of Technology                      |
| Panxing Huang                                                                                                                             | Beijing Institute of Control Engineering             | Zijie Ji                                                                                                                             | China Academy of Space Technology                   |
| 15:45-17:45                                                                                                                               | D12.145                                              | Xiaoqing Zhong                                                                                                                       | China Academy of Space Technology                   |
| <b>1576</b> <i>FedFPA-Q: Communication-efficient personalized federated learning for multi-UAV collaborative perception</i>               |                                                      | Ju Huo                                                                                                                               | Harbin Institute of Technology                      |
| Chenzhe Liu                                                                                                                               | Shanghai Univ.                                       | Tao Chao                                                                                                                             | Harbin Institute of Technology                      |
| Antai Xie                                                                                                                                 | Shanghai Univ.                                       | 15:45-17:45                                                                                                                          | D12.152                                             |
| Linjing Chen                                                                                                                              | Shanghai Univ.                                       | <b>1494</b> <i>Brain-inspired reinforcement learning for goal-reaching navigation</i>                                                |                                                     |
| Xiaoqiang Ren                                                                                                                             | Shanghai Univ.                                       | Jiaxin Yan                                                                                                                           | Univ. of Electronic Science and Technology of China |
| 15:45-17:45                                                                                                                               | D12.146                                              | Jun Li                                                                                                                               | AVIC Chengdu Aircraft Design and Research Institute |
| <b>114</b> <i>Robust visual-LIDAR fusion SLAM for challenging environments</i>                                                            |                                                      | Huixin Li                                                                                                                            | AVIC Chengdu Aircraft Design and Research Institute |
| Runzhuo Yu                                                                                                                                | Harbin Institute of Technology                       | Zebo Zhou                                                                                                                            | Univ. of Electronic Science and Technology of China |
| Ke Fang                                                                                                                                   | Harbin Institute of Technology                       | 15:45-17:45                                                                                                                          | D12.153                                             |
| Tao Chao                                                                                                                                  | Harbin Institute of Technology                       | <b>769</b> <i>Deep learning-based GNSS positioning error estimation method and performance analysis</i>                              |                                                     |
| Qing Guo                                                                                                                                  | Univ. of Electronic Science and Technology of China  | Juntai Qi                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics       |
| 15:45-17:45                                                                                                                               | D12.147                                              | Qieqie Zhang                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics       |
| <b>445</b> <i>High speed multi-vehicle reentry guidance with consideration of angle and time coordination</i>                             |                                                      | Xiaojie Tian                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics       |
| Yujie Bai                                                                                                                                 | Harbin Institute of Technology                       | Le Fang                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics       |
| Wei He                                                                                                                                    | Shanghai Electro-Mechanical Engineering Institute    | Leyi Yang                                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics       |
| Denghui Zhang                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute | Jizhou Lai                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics       |
| Tao Chao                                                                                                                                  | Harbin Institute of Technology                       | 15:45-17:45                                                                                                                          | D12.154                                             |
| 15:45-17:45                                                                                                                               | D12.148                                              | <b>850</b> <i>Visual semantic enhanced LIDAR triangle descriptor and loop closure detection</i>                                      |                                                     |
| <b>665</b> <i>Research on attitude control method of high speed morphing vehicle based on reinforcement learning</i>                      |                                                      | Zehui Fu                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics       |
| Hongyang Ba                                                                                                                               | Harbin Institute of Technology                       | Hanchong Cai                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics       |
| Wei He                                                                                                                                    | Shanghai Electro-Mechanical Engineering Institute    | Wei Fang                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics       |
| Denghui Zhang                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute | Pin Lyu                                                                                                                              | Nanjing Univ. of Aeronautics and Astronautics       |
| Tao Chao                                                                                                                                  | Harbin Institute of Technology                       | Cheng Yuan                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics       |
| 15:45-17:45                                                                                                                               | D12.149                                              | Haowen Zhu                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics       |
| <b>768</b> <i>Research on a bidirectional adaptive RRT* path planning algorithm incorporating a variable elliptical sampling strategy</i> |                                                      | 15:45-17:45                                                                                                                          | D12.155                                             |
| Yifan Chen                                                                                                                                | Nanning Vocational and Technical Univ.               | <b>904</b> <i>UAV low-altitude visual localization method based on joint constraints of geometric consistency and laser altitude</i> |                                                     |
| Wenjing Tian                                                                                                                              | Guilin Univ. of Electronic Technology                | Qingxia Zhong                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics       |
| Yuwei Ke                                                                                                                                  | Nanning Vocational and Technical Univ.               | Cheng Yuan                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics       |
| Jie Chen                                                                                                                                  | Nanning Vocational and Technical Univ.               | Jizhou Lai                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics       |
| Junxi Tian                                                                                                                                | Guilin Univ. of Electronic Technology                | Churong Ding                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics       |
| 15:45-17:45                                                                                                                               | D12.150                                              |                                                                                                                                      |                                                     |
| <b>1196</b> <i>Robust tightly-coupled stereo visual-inertial-UWB navigation</i>                                                           |                                                      |                                                                                                                                      |                                                     |
| Jiaqi Cheng                                                                                                                               | Harbin Institute of Technology                       |                                                                                                                                      |                                                     |
| Xu Wen                                                                                                                                    | Harbin Institute of Technology                       |                                                                                                                                      |                                                     |
| Denghui Zhang                                                                                                                             | AVIC Shenyang Aircraft Design and Research Institute |                                                                                                                                      |                                                     |
| Ming Yang                                                                                                                                 | Harbin Institute of Technology                       |                                                                                                                                      |                                                     |
| Tao Chao                                                                                                                                  | Harbin Institute of Technology                       |                                                                                                                                      |                                                     |
| 15:45-17:45                                                                                                                               | D12.151                                              |                                                                                                                                      |                                                     |
| <b>1207</b> <i>Rapid scheduling strategy for low earth orbit constellations for continuous tracking of multiple maneuvering targets</i>   |                                                      |                                                                                                                                      |                                                     |

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|                                                                                                                                                     | Astronautics                                         |                                                                                                                    | and Research Institute                               |
| Hongyang Wang                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics        | Yang Zhang                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute |
| Zhimin Li                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics        | Yifeng Wang                                                                                                        | Harbin Institute of Tecnology                        |
| Pin Lyu                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics        | Zhaoji Wang                                                                                                        | Nanjing University of Aeronautics and Astronautics   |
| 15:45-17:45                                                                                                                                         | D12.156                                              | Shouzhao Sheng                                                                                                     | Nanjing University of Aeronautics and Astronautics   |
| <b>923</b> <i>An autonomous navigation and positioning method for UAVs based on visual map matching and inertial fusion</i>                         |                                                      | 15:45-17:45                                                                                                        | D12.160                                              |
| Hongyang Wang                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics        | <b>1049</b> <i>Visual object perception method based on improved RT-DETR under cloud and fog interference</i>      |                                                      |
| Qieqie Zhang                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        | Yuchun Wang                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        |
| Hanyu Zhan                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        | Cheng Yuan                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics        |
| Cheng Yuan                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        | Pin Lyu                                                                                                            | Nanjing Univ. of Aeronautics and Astronautics        |
| Yi Lu                                                                                                                                               | Nanjing Univ. of Aeronautics and Astronautics        | Siyuan Li                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        |
| Qingxia Zhong                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics        | Yuxuan Chen                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        |
| 15:45-17:45                                                                                                                                         | D12.157                                              | Jizhou Lai                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics        |
| <b>932</b> <i>Vision-inertial SLAM based navigation and positioning method for fixed-wing UAV landing</i>                                           |                                                      | 15:45-17:45                                                                                                        | D12.161                                              |
| Xiang Liu                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics        | <b>489</b> <i>A dynamic grasping method for aerial manipulators based on vision</i>                                |                                                      |
| Qieqie Zhang                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        | Dongfang Xu                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        |
| Zhimin Li                                                                                                                                           | Nanjing Univ. of Aeronautics and Astronautics        | Zehui Mao                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        |
| Jizhou Lai                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        | Xunhong Lv                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics        |
| 15:45-17:45                                                                                                                                         | D12.158                                              | Baohua Liu                                                                                                         | Jiangsu Automation Research Institute                |
| <b>935</b> <i>A visual-inertial navigation method for disturbance scenarios based on multi-dimensional quality assessment for feature selection</i> |                                                      | 15:45-17:45                                                                                                        | D12.162                                              |
| Churong Ding                                                                                                                                        | Nanjing Univ. of Aeronautics and Astronautics        | <b>490</b> <i>Robust autonomous landing of UAV on water based on visual guidance</i>                               |                                                      |
| Cheng Yuan                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        | Jincheng Chen                                                                                                      | Nanjing Univ. of Aeronautics and Astronautics        |
| Jizhou Lai                                                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        | Zehui Mao                                                                                                          | Nanjing Univ. of Aeronautics and Astronautics        |
| Qingxia Zhong                                                                                                                                       | Nanjing Univ. of Aeronautics and Astronautics        | Xunhong Lv                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics        |
| Heqing Chen                                                                                                                                         | Nanjing Univ. of Aeronautics and Astronautics        | Baohua Liu                                                                                                         | Jiangsu Automation Research Institute                |
| Pin Lyu                                                                                                                                             | Nanjing Univ. of Aeronautics and Astronautics        | 15:45-17:45                                                                                                        | D12.163                                              |
| 15:45-17:45                                                                                                                                         | D12.159                                              | <b>101</b> <i>Maneuvering-based trajectory planning for berthing control of ASV via speed assignment with ILOS</i> |                                                      |
| <b>103</b> <i>Adaptive Extended State Observer-based Sliding Mode Control for Carrier-based Aircrafts during Landing</i>                            |                                                      | Ting Sun                                                                                                           | Dalian Maritime Univ.                                |
| Xiulin Zhang                                                                                                                                        | AVIC Shenyang Aircraft Design and Research Institute | Yong Yin                                                                                                           | Dalian Maritime Univ.                                |
| Yanfeng Liu                                                                                                                                         | AVIC Shenyang Aircraft Design and Research Institute | Cheng Liu                                                                                                          | Dalian Maritime Univ.                                |
| Xinyu Feng                                                                                                                                          | AVIC Shenyang Aircraft Design                        | Zhaochun Liu                                                                                                       | Dalian Maritime Univ.                                |
|                                                                                                                                                     |                                                      | Helong Shen                                                                                                        | Dalian Maritime Univ.                                |
|                                                                                                                                                     |                                                      | Xiaobin Qian                                                                                                       | Shanghai Maritime Univ.                              |
|                                                                                                                                                     |                                                      | 15:45-17:45                                                                                                        | D12.164                                              |
|                                                                                                                                                     |                                                      | <b>1311</b> <i>Online compensation of thermal drift in atomic device based on Faraday-rotation measurement</i>     |                                                      |

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| Silu Deng                                                                                                                                                     | Beihang Univ.                                                        | Science and Technology   |
| Zehua Liu                                                                                                                                                     | Beihang Univ.                                                        | Shenyang Aerospace Univ. |
| Yuxin Cong                                                                                                                                                    | Beihang Univ.                                                        |                          |
| Haoying Pang                                                                                                                                                  | Beihang Univ.                                                        |                          |
| Jixi Lu                                                                                                                                                       | Beihang Univ.                                                        |                          |
| 15:45-17:45                                                                                                                                                   | D12.165                                                              |                          |
| <b>1748</b> Atomic interferometer gyroscopes: Technological evolution, application challenges, and future perspectives                                        |                                                                      |                          |
| Qiuxin Zhang                                                                                                                                                  | Beijing Changcheng Institute of Metrology & Measurement              |                          |
| Bin Chen                                                                                                                                                      | Beijing Changcheng Institute of Metrology & Measurement              |                          |
| Dong Hu                                                                                                                                                       | Beijing Changcheng Institute of Metrology & Measurement              |                          |
| Yu Wang                                                                                                                                                       | Beijing Changcheng Institute of Metrology & Measurement              |                          |
| 15:45-17:45                                                                                                                                                   | D12.166                                                              |                          |
| <b>657</b> A ranging-based distributed cooperative localization method using Lie group right invariant error extended Kalman filter                           |                                                                      |                          |
| Xincan Luo                                                                                                                                                    | National Univ. of Defense Technology                                 |                          |
| Maosong Wang                                                                                                                                                  | National Univ. of Defense Technology                                 |                          |
| Wenqi Wu                                                                                                                                                      | National Univ. of Defense Technology                                 |                          |
| Jun Mao                                                                                                                                                       | National Univ. of Defense Technology                                 |                          |
| Xiaofeng He                                                                                                                                                   | National Univ. of Defense Technology                                 |                          |
| 15:45-17:45                                                                                                                                                   | D12.167                                                              |                          |
| <b>751</b> A lightweight semantic-prior SLAM method based on an improved YOLO11n for dynamic scenes                                                           |                                                                      |                          |
| Luchang Tang                                                                                                                                                  | National Univ. of Defense Technology                                 |                          |
| Maosong Wang                                                                                                                                                  | National Univ. of Defense Technology                                 |                          |
| 15:45-17:45                                                                                                                                                   | D12.168                                                              |                          |
| <b>869</b> An equivariant filter based GNSS-LiDAR-inertial odometry                                                                                           |                                                                      |                          |
| Wentao Lu                                                                                                                                                     | Wuhan Univ.                                                          |                          |
| Wenning Li                                                                                                                                                    | Beidou Application Development Research Institute                    |                          |
| Chi Guo                                                                                                                                                       | Wuhan Univ.                                                          |                          |
| Ning Kang                                                                                                                                                     | Beidou Application Development Research Institute                    |                          |
| Yarong Luo                                                                                                                                                    | Wuhan Univ.                                                          |                          |
| 15:45-17:45                                                                                                                                                   | D12.169                                                              |                          |
| <b>1662</b> The setting of IMU parameters in Kalman filtering-based information fusion                                                                        |                                                                      |                          |
| Qiang Hu                                                                                                                                                      | Tongji Univ.                                                         |                          |
| Yanhua Zou                                                                                                                                                    | Tongji Univ.                                                         |                          |
| Shuaiyi Huo                                                                                                                                                   | Tongji Univ.                                                         |                          |
| Haibo Ge                                                                                                                                                      | Tongji Univ.                                                         |                          |
| Wei Ouyang                                                                                                                                                    | Tongji Univ.                                                         |                          |
| 15:45-17:45                                                                                                                                                   | D12.170                                                              |                          |
| <b>498</b> Robustness analysis of D3RQN-based UAV trajectory decision-making in partially observable environments                                             |                                                                      |                          |
| Xuhui Wang                                                                                                                                                    | China Academy of Civil Aviation Science and Technology               |                          |
| Shenglong Zhang                                                                                                                                               | Shenyang Aerospace Univ.                                             |                          |
| Tengli Yu                                                                                                                                                     | Shenyang Aerospace Univ.                                             |                          |
| Song Xu                                                                                                                                                       | Shenyang Aerospace Univ.                                             |                          |
| Jing Guo                                                                                                                                                      | China Academy of Civil Aviation Science and Technology               |                          |
| Yubin Xu                                                                                                                                                      | China Academy of Civil Aviation Science and Technology               |                          |
| Ershen Wang                                                                                                                                                   | Shenyang Aerospace Univ.                                             |                          |
| 15:45-17:45                                                                                                                                                   | D12.171                                                              |                          |
| <b>133</b> Research on deep learning-based ultrasonic guided wave detection methods for carbon fiber composite material defects                               |                                                                      |                          |
| Yiqun Lv                                                                                                                                                      | Qilu Univ. of Technology                                             |                          |
| Qingzhao Jia                                                                                                                                                  | Qilu Univ. of Technology                                             |                          |
| Huangzhi Yu                                                                                                                                                   | Qilu Univ. of Technology                                             |                          |
| Shun Wang                                                                                                                                                     | Qilu Univ. of Technology                                             |                          |
| Yanqiang Li                                                                                                                                                   | Qilu Univ. of Technology                                             |                          |
| Daifeng Zhang                                                                                                                                                 | Qilu Univ. of Technology                                             |                          |
| 15:45-17:45                                                                                                                                                   | D12.172                                                              |                          |
| <b>1188</b> 基于数据驱动的飞行仿真模型迁移校正                                                                                                                                 |                                                                      |                          |
| Ruizhe Ma                                                                                                                                                     | Beijing Aerospace Institute for Metrology and Measurement Technology |                          |
| Yanguo Hu                                                                                                                                                     | AVIC Shenyang Aircraft Design and Research Institute                 |                          |
| Yang Sun                                                                                                                                                      | Shanghai Jiao Tong Univ.                                             |                          |
| Yanzhe Bai                                                                                                                                                    | Harbin Normal Univ.                                                  |                          |
| 15:45-17:45                                                                                                                                                   | D12.173                                                              |                          |
| <b>287</b> A comprehensive review of core algorithms and performance analysis for multi-UAV collaborative navigation                                          |                                                                      |                          |
| Danting Sheng                                                                                                                                                 | Beijing Electro-mechanical Engineering Institute                     |                          |
| Yibin Wang                                                                                                                                                    | Beijing Electro-mechanical Engineering Institute                     |                          |
| Xiongzi Du                                                                                                                                                    | Beijing Electro-mechanical Engineering Institute                     |                          |
| Yuxin Niu                                                                                                                                                     | Beijing Electro-mechanical Engineering Institute                     |                          |
| 15:45-17:45                                                                                                                                                   | D12.174                                                              |                          |
| <b>183</b> A nonlinear aerodynamic correction method for missile body based on BP neural network                                                              |                                                                      |                          |
| Zhongyun Fan                                                                                                                                                  | Xi'an Modern Control Technology Research Institute                   |                          |
| Junmin Zhao                                                                                                                                                   | Xi'an Modern Control Technology Research Institute                   |                          |
| Gang Wang                                                                                                                                                     | Xi'an Modern Control Technology Research Institute                   |                          |
| Jiaqi Wang                                                                                                                                                    | Xi'an Modern Control Technology Research Institute                   |                          |
| Lei Su                                                                                                                                                        | Xi'an Modern Control Technology Research Institute                   |                          |
| Fuqiang Di                                                                                                                                                    | Xi'an Modern Control Technology Research Institute                   |                          |
| 15:45-17:45                                                                                                                                                   | D12.175                                                              |                          |
| <b>1064</b> Research on formation and obstacle avoidance control of underactuated unmanned surface vessels under input constraints and GPS-denied environment |                                                                      |                          |
| Xuecheng Zhou                                                                                                                                                 | Shanghai Univ.                                                       |                          |
| Yueying Wang                                                                                                                                                  | Shanghai Univ.                                                       |                          |
| 15:45-17:45                                                                                                                                                   | D12.176                                                              |                          |
| <b>275</b> Waterproofness and electromagnetic environmental compliance design for distributed fly-by-wire flight control actuator servo controller            |                                                                      |                          |
| Xueyang Yu                                                                                                                                                    | Shanghai Aircraft Design and Research Institute                      |                          |

|                                                                                                                                                         |                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 15:45-17:45                                                                                                                                             | D12.177                                                      |
| <b>516</b> 基于鸽群优化的舰载机控制舵面配平                                                                                                                             |                                                              |
| Jiaxing Wang                                                                                                                                            | AVIC Shenyang Aircraft Design<br>and Research Institute      |
| Yan Ding                                                                                                                                                | AVIC Shenyang Aircraft Design<br>and Research Institute      |
| Yiming Fan                                                                                                                                              | AVIC Shenyang Aircraft Design<br>and Research Institute      |
| Heqi Li                                                                                                                                                 | AVIC Shenyang Aircraft Design<br>and Research Institute      |
| 15:45-17:45                                                                                                                                             | D12.178                                                      |
| <b>1571</b> Compliance design method and application of oscillation and transient fault diagnosis in aircraft flight control hydraulic actuation system |                                                              |
| Xueyang Yu                                                                                                                                              | Shanghai Aircraft Design and<br>Research Institute           |
| 15:45-17:45                                                                                                                                             | D12.179                                                      |
| <b>890</b> Analysis of safety impact on startup mode of flight control backup system                                                                    |                                                              |
| Tian Zhao                                                                                                                                               | AVIC First Aircraft Design and<br>Research Institute         |
| Feihong Jiang                                                                                                                                           | AVIC First Aircraft Design and<br>Research Institute         |
| 15:45-17:45                                                                                                                                             | D12.180                                                      |
| <b>1334</b> Thrust-only emergency control for four-engine transport aircraft based on nonlinear dynamic inversion                                       |                                                              |
| Tan Li                                                                                                                                                  | AVIC First Aircraft Design and<br>Research Institute         |
| Lei Gong                                                                                                                                                | AVIC First Aircraft Design and<br>Research Institute         |
| 12:07-12:15                                                                                                                                             | D12.181                                                      |
| <b>1743</b> Target electromagnetic characteristic simulation technology driven by both data and mechanism                                               |                                                              |
| Baichen Jiang                                                                                                                                           | Unit 92942                                                   |
| Shuman Wang                                                                                                                                             | Unit 92942                                                   |
| Yuan Yuan Zhou                                                                                                                                          | Sichuan Aerospace Electronic<br>Equipment Research Institute |
| Nan Wang                                                                                                                                                | Unit 92942                                                   |



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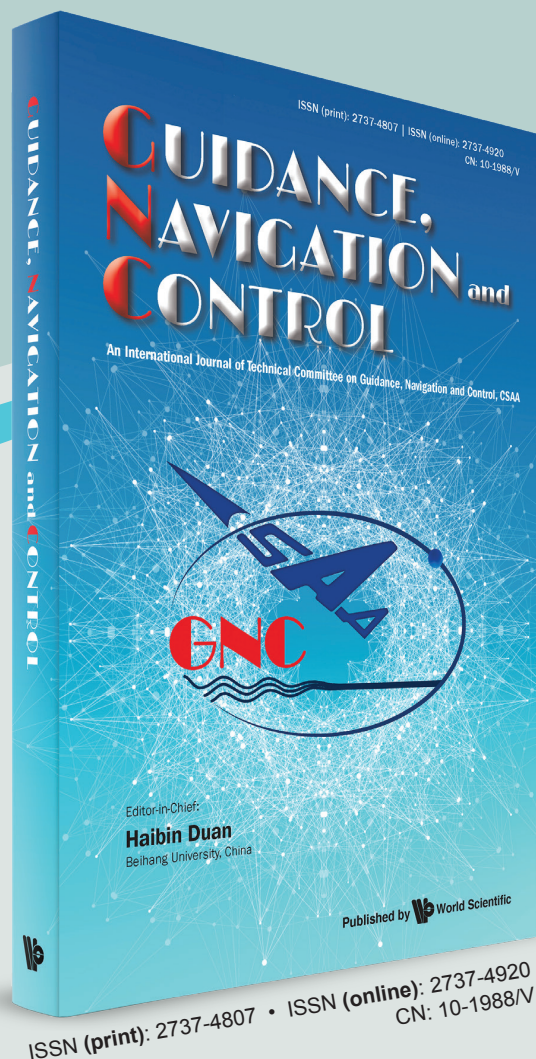
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