

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
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中国自动化学会无人飞行器自主控制专业委员会
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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

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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), 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

目录 (CONTENTS)

欢迎辞 (Welcome Address)	2
往届会议 (Past and Present)	4
会议机构 (Conference Organizations)	8
会议组织 (Conference Committees)	10
大会介绍(Conference Introduction).....	26
I 会场信息.....	27
II 交通信息.....	28
III 住宿信息.....	30
IV 其他信息.....	30
V 联系信息.....	32
VI 会议安排总览.....	33
口头与张贴报告要求.....	34
会议一览表 (Program Schedule).....	35
大会报告 I (Plenary Speech I).....	38
大会报告 II (Plenary Speech II).....	39
大会报告 III (Plenary Speech III).....	40
大会报告 IV (Plenary Speech IV).....	41
大会报告 V (Plenary Speech V).....	42
大会报告 VI (Plenary Speech VI).....	43
GNC 总师论坛 (GNC Chief Designer Forum).....	44
GNC 国家级教学名师论坛 (GNC National-level Model Teacher Forum).....	49
GNC 青年科学家论坛 (GNC Young Scientist Forum).....	55
Technical Program.....	65

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 Guilin, 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 Organized by Chinese Society of Aeronautics and Astronautics (CSAA) and National Key Laboratory of Aircraft Integrated Flight Control. It is hosted 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, and Professor Dong Zhang from AVIC Shenyang Aircraft Design and Research Institute.

This year, we invited four panelists for Chief Designer Forum, who are Yongtao Peng from AVIC Xi'an Flight Automatic Control Research Institute, Xiaoming Zhao from Tianjin Navigation Instruments Research Institute, CSSC, Yang Fu from AVIC Chengdu Aircraft Design and Research Institute, and Yongchun Xie from Beijing Institute of Control Engineering. 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 nine 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 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.



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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 2032 年 8 月，待定

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

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

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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
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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(TCNGC)



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

Organizations

Organizing Institutes



Chinese Society of Aeronautics and Astronautics (CSAA)



National Key Laboratory of Aircraft Integrated Flight Control



Hosts

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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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 organized by Chinese Society of Aeronautics and Astronautics (CSAA) and National Key Laboratory of Aircraft Integrated Flight Control. It is hosted 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, invited sessions, oral sessions and poster sessions. Forums including Chief designer forum, model teacher forum and young scientist forum will be hosted 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、特邀专题、口头报告专题和张贴海报专题等，同期举办总师论坛、国家级教学名师论坛和青年科学家论坛，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

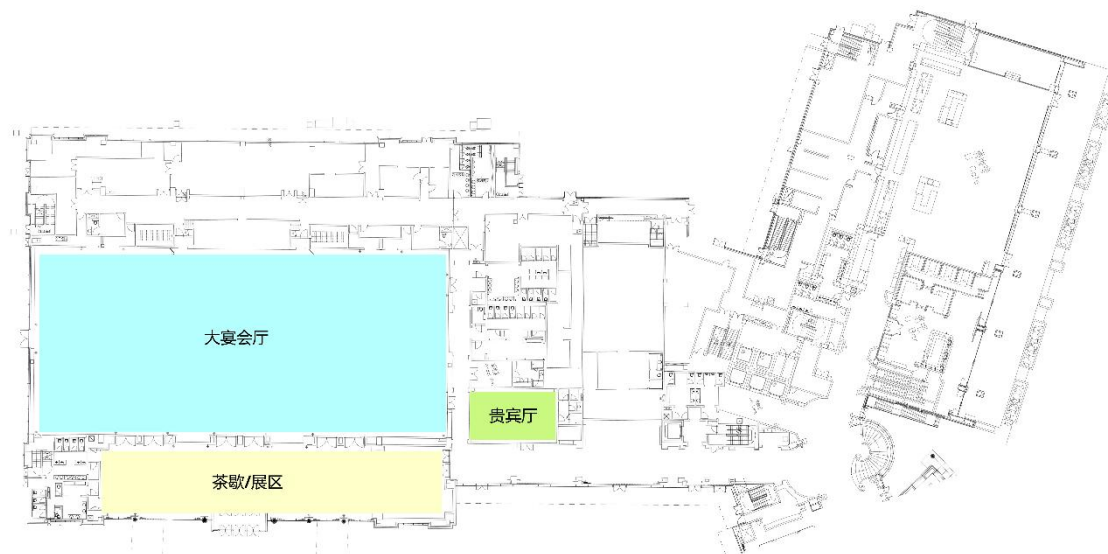


图 3 The 1st Floor Map of Shangri-La Guilin
桂林香格里拉酒店 1 层平面图

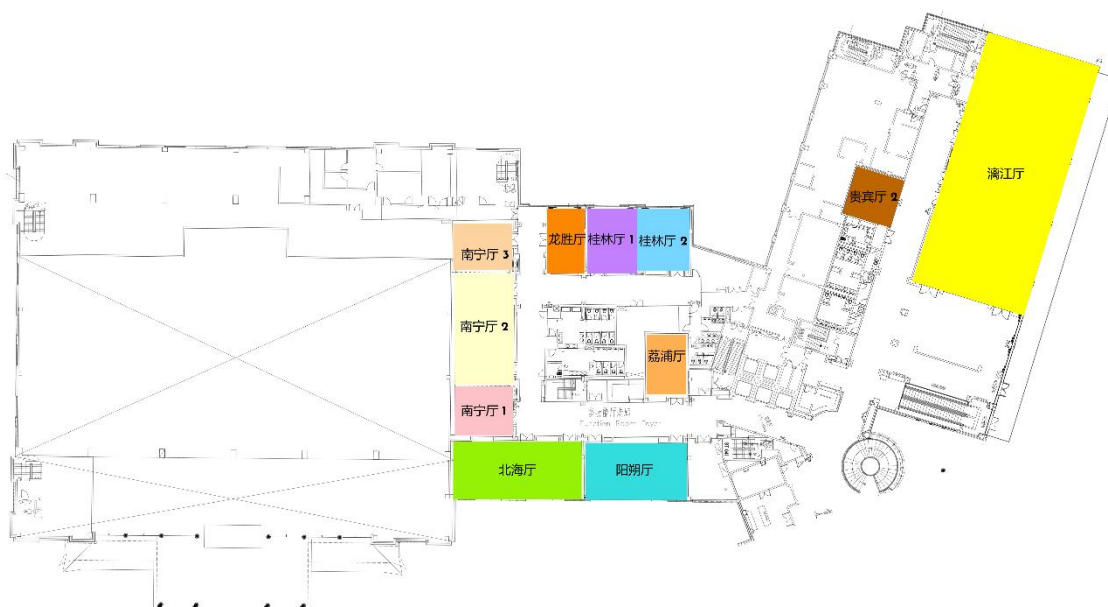


图 4 The 2nd Floor Map of Shangri-La Guilin
桂林香格里拉酒店 2 层平面图

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 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 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 (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 119/120 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

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组织委员会秘书处

王勇军，桂林航天工业学院

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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） 14:00-17:20

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 st 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 st 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 nd Floor (桂林香格里拉酒店 2 层 漓江厅) (Chairs: Tao Zhang 张涛 Tsinghua University & Shanlin Sun 孙山林 Guilin University of Aerospace Technology) GNC National-level Model Teacher Forum(GNC 国家级教学名师论坛): Innovation and Practice of GNC Education (GNC 教育创新与实践)		
09:00-09:40	Yu Yao 姚郁 Harbin Engineering University	Exploration and Practice of Cultivating Future Leading Talents in Deep Sea
09:40-10:20	Junfei Qiao 乔俊飞 Beijing University of Technology	Embodied Intelligence: A New Frontier for AI and Automation Education
10:20-11:00	Shaoyuan Li 李少远 Shanghai Jiao Tong University	Reconstruction of the Systematic Curriculum Framework beyond the Fundamental Methods of Cybernetics
11:00-11:40	Meiling Wang 王美玲 Beijing Institute of Technology	Exploration and Practice of Empowering Education and Teaching Innovation with Digital Intelligence
12:00-13:30	1 st Floor&2 nd Floor Shangri-La Guilin (桂林香格里拉酒店)	自助午餐/Lunch
14:00-17:20	Junior Ballroom, 2 nd Floor (桂林香格里拉酒店 2 层 漓江厅) (Chair: Bin Jiang 姜斌 Nanjing University of Aeronautics and Astronautics) GNC Young Scientist Forum (GNC 青年科学家论坛): Frontiering Technologies in GNC (GNC 领域前沿技术)	
14:00-14:20	Peng Cheng 程鹏 Zhejiang University	Industrial Internet Security: What Can Control Do?
14:20-14:40	Haichao Gui 桂海潮 Beihang University	Global Probability Distribution on Manifolds for Motion State Estimation
14:40-15:00	Huaping Liu 刘华平 Tsinghua University	A Synergy of Morphology, Action, Perception and Learning for Embodied Intelligence
15:00-15:20	Yajie Ma 马亚杰 Nanjing University of Aeronautics and Astronautics	Task Reallocation Techniques for Flight Formation Systems
15:20-15:40	Guanghui Wen 温广辉 Southeast University	Distributed Consensus and Optimization of Multi-Agent Systems with Switching Communication Topologies
15:40-16:00	茶歇/Tea Break	
16:00-16:20	Jiande Wu 吴建德 Yunnan University	Recent Advances in Time-Frequency Analysis for Fault Detection and Diagnosis of Complex Industrial Processes
16:20-16:40	Dongrui Wu 伍冬睿 Huazhong University of Science and Technology	Adversarial Security of Brain-Computer Interfaces
16:40-17:00	Bin Xin 辛斌 Beijing Institute of Technology	Air-Ground Coordinated Last-Mile Delivery Optimization: Collaborative Vehicle-Drone Delivery Integrating Social Vehicles
17:00-17:20	Yanlong Zhao 赵延龙 Academy of Mathematics and Systems Science, CAS	Identification and Control of Finite-Information Systems
18:00-20:00	1 st Floor & 2 nd Floor Shangri-La Guilin (桂林香格里拉酒店)	自助晚餐/Dinner
20:30-22:00	Junior Ballroom, 2 nd Floor (桂林香格里拉酒店 2 层 漓江厅)	
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)		

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 st Floor (桂林香格里拉酒店 一层大宴会厅)	
大会开幕式/Opening Ceremony Chair: Shanlin Sun 孙山林 GNC 国际期刊优秀论文颁奖/GNC Best Paper Award Ceremony Chair: Bin Jiang 姜斌		
09:00-12:00	Grand Ballroom, 1 st Floor (桂林香格里拉酒店 一层大宴会厅)	
Plenary Speech I (大会报告 I) (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
09:00-09:40	Tianyou Chai 柴天佑 中国工程院院士 Northeastern University	
Plenary Speech II (大会报告 II) (Chair: Bin Jiang 姜斌)		Lunar Exploration Program of China: Practice and Prospect
09:40-10:20	Dengyun Yu 于登云 中国科学院院士 China Aerospace Science and Technology Corporation	
10:20-10:40 茶歇/Tea Break		
Plenary Speech III (大会报告 III) (Chair: Jinhu Lü 吕金虎)		Intelligent Flying Vehicles: From 'Ren-Gong' Intelligence to 'Niao-Gong' Intelligence
10:40-11:20	Lei Guo 郭雷 中国科学院院士 Beihang University	
Plenary Speech IV (大会报告 IV) (Chair: Dayi Wang 王大轶)		Mechanisms, Algorithms and Applications of Visual Navigation
11:20-12:00	Dewen Hu 胡德文 中国科学院院士 National University of Defense Technology	
12:00-13:30 1 st Floor& 2 nd Floor Shangri-La Guilin (桂林香格里拉酒店) 自助午餐/Lunch		
14:00-15:20	Grand Ballroom, 1 st Floor (桂林香格里拉酒店 一层大宴会厅)	
Plenary Speech V (大会报告 V) (Chair: Shaoping Wang 王少萍)		From Feedback Control to Intelligent Resilience
14:00-14:40	Marios M. Polycarpou 欧洲科学院院士 University of Cyprus	
Plenary Speech VI (大会报告 VI) (Chair: Panfeng Huang 黄攀峰)		Multi-Domain Warfare Reshapes Air Combat Systems: Prospect on the Development of Next-Generation Flight Control Technologies
14:40-15:20	Dong Zhang 张冬 AVIC Shenyang Aircraft Design and Research Institute	
15:20-15:45 茶歇/Tea Break		
15:45-18:00	Junior Ballroom, 2 nd Floor (桂林香格里拉酒店 2 层 漓江厅) (Chair: Yingxun Wang 王英勋 Beihang University)	
GNC Chief Designer Forum (GNC 总师论坛): Human System Integration		
15:45-16:00	Yongtao Peng 彭永涛 AVIC Xi'an Flight Automatic Control Research Institute	Research on Guidance and Control Technology for Reusable Aircraft
16:00-16:15	Xiaoming Zhao 赵小明 Tianjin Navigation Instruments Research Institute, CSSC	Intelligent Practices and Prospects for Shiphhandling System
16:15-16:30	Yang Fu 付泱 AVIC Chengdu Aircraft Design and Research Institute	Research and Reflection on Human-System Integration in Autonomous UAV Flight
16:30-16:45	Yongchun Xie 解永春 Beijing Institute of Control Engineering	Integrated Research on Human-Machine Hybrid Intelligent Perception, Decision and Execution for Manned Space Missions
16:45-18:00	Interactive Discussion 互动交流	
16:00-18:00	Beihai room, 2 nd Floor (桂林香格里拉酒店 2 层 北海厅)	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
19:00-21:30	Grand Ballroom, 1 st 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 st Floor VIP Room 1 层 贵宾厅	2 nd Floor Yangshuo Room 2 层 阳朔厅	2 nd Floor Lipu Room 2 层 荔浦厅	2 nd Floor Nanning Room1 2 层 南宁厅 1	2 nd Floor Nanning Room2 2 层 南宁厅 2	2 nd Floor Aisle 2 层连廊厅	2 nd Floor Beihai Room 2 层 北海厅
	A1 Dynamic GNC	A2 Learning GNC	A3 Precision GNC	A4 Advanced GNC	A5 Planning GNC	A12 Poster Session 1	08:00-12:15 A11 Best Paper (Oral)
	2 nd Floor Nanning Room3 2 层 南宁厅 3	2 nd Floor Longsheng Room 2 层 龙胜厅	2 nd Floor Guilin Room 1 2 层 桂林厅 1	2 nd Floor Guilin Room 2 2 层 桂林厅 2	2 nd Floor VIP Room 2 2 层 贵宾厅 2		
	A6 Autonomous GNC	A7 Formation GNC	A8 Intelligent GNC	A9 Recognition GNC	A10 Aircraft GNC		
10:00-10:15 茶歇/Tea Break							
10:15-12:15	1 st Floor VIP Room 1 层 贵宾厅	2 nd Floor Yangshuo Room 2 层 阳朔厅	2 nd Floor Lipu Room 2 层 荔浦厅	2 nd Floor Nanning Room1 2 层 南宁厅 1	2 nd Floor Nanning Room2 2 层 南宁厅 2	2 nd Floor Aisle 2 层连廊厅	
	B1 Robust GNC	B2 Reinforcement GNC	B3 Vision GNC	B4 Safety GNC	B5 Flight GNC	B12 Poster Session 2	
	2 nd Floor Nanning Room3 2 层 南宁厅 3	2 nd Floor Longsheng Room 2 层 龙胜厅	2 nd Floor Guilin Room 1 2 层 桂林厅 1	2 nd Floor Guilin Room 2 2 层 桂林厅 2	2 nd Floor VIP Room 2 2 层 贵宾厅 2		
	B6 Optimization GNC	B7 Reliable GNC	B8 Aerospace GNC	B9 Automatic GNC	B10 Hybrid GNC		
12:15-13:30 1 st Floor&2 nd Floor Shangri-La Guilin (桂林香格里拉酒店) 自助午餐/Lunch							
13:30-15:30	1 st Floor VIP Room 1 层 贵宾厅	2 nd Floor Yangshuo Room 2 层 阳朔厅	2 nd Floor Lipu Room 2 层 荔浦厅	2 nd Floor Nanning Room1 2 层 南宁厅 1	2 nd Floor Nanning Room2 2 层 南宁厅 2	2 nd Floor Aisle 2 层连廊厅	
	C1 Modeling GNC	C2 Reasoning GNC	C3 Fault-tolerant GNC	C4 Collaborative GNC	C5 Prediction GNC	C12 Poster Session 3	
	2 nd Floor Nanning Room3 2 层 南宁厅 3	2 nd Floor Longsheng Room 2 层 龙胜厅	2 nd Floor Guilin Room 1 2 层 桂林厅 1	2 nd Floor Guilin Room 2 2 层 桂林厅 2	2 nd Floor VIP Room 2 2 层 贵宾厅 2		
	C6 Fusion GNC	C7 Perception GNC	C8 Cross-domain GNC	C9 Positioning GNC	C10 Adaptive GNC		
15:30-15:45 茶歇/Tea Break							
15:45-17:45	1 st Floor VIP Room 1 层 贵宾厅	2 nd Floor Yangshuo Room 2 层 阳朔厅	2 nd Floor Lipu Room 2 层 荔浦厅	2 nd Floor Nanning Room1 2 层 南宁厅 1	2 nd Floor Nanning Room2 2 层 南宁厅 2	2 nd Floor Aisle 2 层连廊厅	
	D1 Swarm GNC	D2 Distributed GNC	D3 Resilient GNC	D4 Cooperative GNC	D5 Smart GNC	D12 Poster Session 4	
	2 nd Floor Nanning Room3 2 层 南宁厅 3	2 nd Floor Longsheng Room 2 层 龙胜厅	2 nd Floor Guilin Room 1 2 层 桂林厅 1	2 nd Floor Guilin Room 2 2 层 桂林厅 2	2 nd Floor VIP Room 2 2 层 贵宾厅 2		
	D6 Unmanned GNC	D7 Pattern GNC	D8 Classic GNC	D9 Multi-agent GNC	D10 Confrontation GNC		
18:00-20:00 1 st Floor&2 nd 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

Mechanisms, Algorithms and Applications of Visual Navigation

Professor Dewen Hu 胡德文

Academician of Chinese Academy of Sciences

National University of Defense Technology

Abstract

For autonomous perception and navigation of unmanned systems operating in high-speed, highly dynamic, and GNSS-denied environments, this speech presents an integrated visual navigation framework spanning a brain-inspired perception front end, a visual-geometric back end, and downstream task execution. Inspired by information-processing mechanisms in the retina and compound eye, the front end incorporates brain-inspired sensors, including Event-RGB heterogeneous cameras and light-field camera arrays, together with computational models based on multi-synaptic spiking neurons and arbitrary-point tracking, enabling low-latency and energy-efficient feature tracking and visual odometry. The back end establishes a new visual geometry theory for efficient and robust pose estimation, batch-based large-scale reconstruction, and streaming online reconstruction. Furthermore, 3D scene matching supports target geolocation, precision target designation, and autonomous navigation. This framework provides a theoretical and technical foundation for rapid perception, accurate measurement, and reliable recognition in resource-constrained unmanned systems.



Dewen Hu, Academician of the Chinese Academy of Sciences, is an expert in the field of control science and engineering. Currently, he is a professor and doctoral supervisor at National University of Defense Technology, the deputy director of the university science and technology committee, and the vice president of the Chinese Association for Artificial Intelligence. He has been engaged in research on brain cognitive pattern recognition for a long time. He has made systematic and creative contributions in areas such as temporal and spatial analysis of brain signals, research on the mechanism of brain network connections, and brain-machine collaborative control, and has made significant progress in visual computing. He has obtained two Second

Class Prizes of the National Natural Science Award as the first completer. He is a recipient of the National Science Fund for Distinguished Young Scholars and a Chang Jiang Distinguished Professor of the Ministry of Education. He has won the gold medal of the military academy education award, national outstanding scientist award, military outstanding professional and technical personnel award, national innovation pioneer award, and Wu Wenjun outstanding contribution award in artificial intelligence.

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: Panfeng Huang 黄攀峰

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, 2nd 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



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 Guidance and Control Technology for Reusable Aircraft

Professor Yongtao Peng 彭永涛

AVIC Xi'an Flight Automatic Control Research Institute

Abstract

Reusable space vehicles, as core strategic equipment enabling rapid space entry and exit, have emerged as a pivotal research focus in the global aerospace community. Led by the X-37B reusable orbital vehicle, overseas studies have accomplished comprehensive on-orbit verification, autonomous reentry, and high-precision recovery and landing, establishing a well-developed technical system. China has also sustained continuous research and development on reentry guidance, autonomous landing, and repeated reuse technologies for aerospace vehicles. Nevertheless, prominent technical bottlenecks still exist in high-precision trajectory control and environmental adaptability under complex disturbance conditions during repeated service cycles. This report systematically reviews the state-of-the-art domestic and international research on reusable space vehicles and analyzes core technologies covering reusable recovery and approach and landing. Oriented to aerospace equipment development demands, this report will finally forecast the future development trends of new-generation reusable space vehicles, featuring safe and reliable round-trip operation and normalized reusable cycling capability.



Yongtao Peng is currently the Chief Engineer, Deputy Director, and Researcher of AVIC Xi'an Flight Automatic Control Research Institute. He is a member of the third batch of equipment development expert group, member of the Navy's shipborne aviation equipment technology professional group, and member of the Society of Intelligent Aerospace Systems. He is mainly engaged in the research and product development of flight control system technology. He has participated in the development of multiple national key weapon and equipment models, as well as the development of multiple autonomous control technologies. Over the years, he has led his team to break through a series of key technologies and achieved multiple domestic first breakthroughs in the GNC field, making important contributions to the cross-generational development of flight control technology in China. He has won one First Class Prize and one Third Class Prize of the National Defense Science and Technology Progress Award, 15 AVIC Group Science and Technology Awards, and three meritorious service commendations.

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, 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.

Integrated Research on Human-Machine Hybrid Intelligent Perception, Decision and Execution for Manned Space Missions

Professor Yongchun Xie 解永春

Beijing Institute of Control Engineering

Abstract

This talk conducts research on the integration of human-machine hybrid intelligent perception, decision-making and execution for manned spaceflight, targeting diverse and complex mission scenarios including space station on-orbit rendezvous and docking, manned lunar flight, and lunar base operation and construction. A closed-loop human-machine collaborative intelligent system suitable for multi-scenario space-earth missions is established. By integrating multi-modal information of space motion situation, extreme cislunar environment, equipment operating conditions and astronauts' capability status, a global collaborative perception model is constructed. According to the characteristics of different missions, human-machine authority allocation is clarified, and a hierarchical hybrid intelligent decision-making mechanism is developed to adapt to differentiated task requirements, such as precise rendezvous and docking control, complex lunar surface exploration, and long-term lunar base operation and maintenance. Hierarchical full-link data transmission and dynamic feedback channels covering perception, decision-making and execution are realized. Preliminary application results verify that the integrated architecture effectively improves the accuracy and efficiency of multi-scenario mission execution, reduces astronauts' operational burden, and enhances the autonomous fault-tolerance performance of the system. The research findings can provide technical support for space station on-orbit missions, manned lunar exploration and sustainable operation of lunar bases, and offer a reference for the comprehensive intelligent development of manned spaceflight.



Yongchun Xie currently serves as Director of the Science and Technology Committee and Chief Technical Expert in the field of space rendezvous and docking at Beijing Institute of Control Engineering (BICE), as well as Director of Tianjin Key Laboratory of Micro and Low Gravity Environment Simulation. Her academic affiliations include Vice Chair of the Aerospace Technical Committee of the International Federation of Automatic Control (IFAC), Corresponding Member of the International Academy of Astronautics (IAA), Member of the Manned Spaceflight Committee of the International Astronautical Federation (IAF), Fellow and Standing Council Member of the Chinese Association of Automation (CAA). She has won 1 Second Prize of the National Technological Invention Award and 7 First Prizes of Provincial/Ministerial-level Science and Technology Awards. She has published 5 academic monographs and 180 academic papers, and holds 90 authorized invention patents. Her honors include the 4th National Innovation Forefront Award, National March 8th Red Banner Holder, Outstanding Leading Scientific and Technological Talent of Central Enterprises, Outstanding Contributor to China's Manned Space Engineering, Aerospace Outstanding Contribution Award of CASC, First Prize of the Yang Jiachi Science and Technology Award, WIPO Best Woman Inventor Award, and she is a recipient of the Special Government Allowance of the State Council.

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, 2nd 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 (TCGNC), 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.

Exploration and Practice of Cultivating Future Leading Talents in Deep Sea

Professor Yu Yao 姚郁

Harbin Engineering University

Abstract

The deep-sea area has become a strategic battleground for China's future development space. In response to the urgent demand for future leading talents in the deep-sea field, this report introduces the exploration and practice of cultivating future leading talents in the deep-sea field by College of Future Technology for Intelligent Ocean, Harbin Engineering University. Through the construction of the new major in smart ocean engineering, the establishment of a cross integrated project-based curriculum system, and the development of walking ideological and political courses, a new path for cultivating future leading talents in the deep-sea field has been formed.



Yu Yao, is the former president of Harbin Engineering University, vice chairman of the Teaching Guidance Committee for Automation Major of the Ministry of Education, Changjiang Scholar Distinguished Professor, expert of the National Defense 863 Expert Group, expert of the General Equipment Department and Manned Space Expert Group, executive director of the Chinese Society for System Simulation, and director of the Chinese Association of Automation. He is engaged in advanced guidance and nonlinear control theory research for a long time, has won one National Science and Technology Progress Special Award and two Second Prizes, was selected as one of the first batch of "New Century Hundred, Thousand and Ten-Thousand Talents Project" at the national level. He also received the China Youth Science and Technology Award and the State Council Special Allowance.

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.

Exploration and Practice of Empowering Education and Teaching Innovation with Digital Intelligence

Professor Meiling Wang 王美玲

Beijing Institute of Technology

Abstract

With the deepening of digital transformation in education, artificial intelligence is accelerating the transformation of all elements in university teaching. This report focuses on the innovative teaching path driven by digital intelligence technology, sharing the exploration and practice of smart course construction and other aspects including "Smart Universe+" system, "Digital Electronic Technology" in Beijing Institute of Technology.



Meiling Wang, Dean of the Academic Affairs Department of Beijing Institute of Technology, National Teaching Master, Changjiang Scholar Distinguished Professor, Member of the Teaching Guidance Committee for Electrical Majors in Higher Education Institutions under the Ministry of Education, recipient of the State Council Special Allowance, team leader of the "National March 8th Red Flag Collective", and leader of the national first-class course. She has won the Baosteel Excellent Teacher Award and the Second Prize for National Teaching Achievements, and she is the chief editor of the textbook which won the Second Prize for National Excellent Textbook.

She mainly engages in the field of intelligent navigation, serving as the Chief Scientist of the Intelligent Robots Special Project of the National Key Research and Development Program, and leading over 20 major instrument projects funded by the National Natural Science Foundation of China. She has awarded 1 first prize and 2 second prizes for National Science and Technology Progress.

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

Time: 14:00-17:20, August 7, 2026
Venue: Junior Ballroom, 2nd 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9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 nine 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.

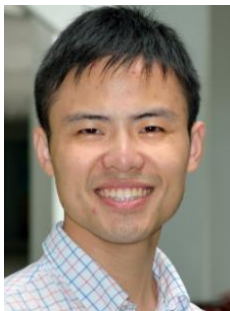
Industrial Internet Security: What Can Control Do?

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.

Global Probability Distribution on Manifolds for Motion State Estimation

Professor Haichao Gui 桂海潮

Beihang University

Abstract

Motion state estimation is a fundamental problem in robotics, aerospace, and autonomous systems, where attitude, pose, velocity, and sensor biases are usually involved. The difficulty arises not only from nonlinear system dynamics, but also from the geometric nonlinearity of the state space. In particular, attitude and pose evolve on Lie groups rather than linear vector spaces, leading to singularities, nonlinear constraints, and nontrivial uncertainty representation. Conventional motion estimators on Lie groups, such as the multiplicative extended Kalman filter and invariant Kalman filters, usually rely on local Gaussian approximations, whose performance may degrade under large initial errors, high measurement noise, or strongly coupled position-attitude measurements. Global probability distributions on Lie groups provide a direct way to characterize uncertainty on nonlinear manifolds while preserving geometric structures. Compared with local Gaussian approximations, they can better capture global uncertainty and preserve the geometric structure of motion states. This talk will introduce a series of estimators using such distributions for motion state estimation. Specifically, matrix Fisher distributions on $SO(3)$ are used for attitude estimation with unit and non-unit vector measurements. Then, fast closed-form matrix-Fisher-based filters with stability guarantees are developed by analyzing their filtering mechanism. Furthermore, intrinsically correlated matrix Fisher-Gaussian distributions on $SO(3) \times \mathbb{R}^3$ are proposed for attitude-bias estimation. Finally, Bayesian conjugate distributions on $SE_n(3)$ are developed for general motion estimation. Simulations on spacecraft attitude estimation and UAV motion estimation demonstrate improved accuracy, robustness, and computational efficiency.



Haichao Gui is currently a Professor in the School of Astronautics and vice dean of the Embodied Intelligent Robotics Institute, Beihang University. He was also a crew member and payload specialist of Shenzhou-16 manned spaceflight mission. His research interests include spacecraft dynamics and control, and space robotics.

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.

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
Chair: Lei Cui	
08:00-08:08	A1.1
206 Review of high-speed unmanned aerial vehicle localization methods based on dynamic vision sensors	
Xing Qu	AVIC Xi'an Flight Automatic Control Research Institute
Yingying Liu	AVIC Xi'an Flight Automatic Control Research Institute
Miao Hui	AVIC Xi'an Flight Automatic Control Research Institute
08:08-08:16	A1.2
1518 全电伺服动作系统关键技术展望	
Yuqing Fei	AVIC Chengdu Aircraft Design and Research Institute
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
409 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
1329 Finite-horizon H^∞ 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
1604 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
1661 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	Technology
	Hebei Univ. of Science and Technology
Lele Xi	Technology
	Hebei Univ. of Science and Technology
Ning Zhou	Technology
	Hebei Univ. of Science and Technology
Bing Cui	Technology
	Beijing Institute of Technology
08:48-08:56	A1.7
810 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
876 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
385 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
607 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
406 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
125 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.

Lingyu Yang	Beihang Univ.
09:36-09:44	A1.13
1410 <i>Fault diagnosis of civil aircraft hydraulic systems based on domain adversarial learning and supervised contrastive learning</i>	
Shengrui Zhang	Nanjing Univ. of Aeronautics and Astronautics
Jianwei Liu	Nanjing Univ. of Aeronautics and Astronautics
Ningning Chen	Nanjing Univ. of Aeronautics and Astronautics
09:44-09:52	A1.14
1628 <i>Fixed-time security control for cyber-physical systems under FDI attacks and actuator faults</i>	
Baohao Wang	Hebei Univ. of Science and Technology
Yikai Song	Hebei Univ. of Science and Technology
Ning Zhou	Hebei Univ. of Science and Technology
Guang Yang	Hebei Univ. of Science and Technology
Tiejun Li	Hebei Univ. of Science and Technology
09:52-10:00	A1.15
319 <i>Active fault-tolerant control of flap actuator indication mechanism based on fault compensation</i>	
Jianchi Yu	Qing'An Group Co., Ltd.
Peilei Chen	Qing'An Group Co., Ltd.
A2 2nd Floor Yangshuo Room	
Learning GNC 2 层 阳朔厅	
Chair: He Wang	
08:00-08:08	A2.1
1462 <i>Multimodal large language model-driven structure-aware ensemble evolutionary optimization for combinatorial problems</i>	
Jie Zhao	Southeast Univ.
08:08-08:16	A2.2
1754 融合 Kolmogorov-Arnold 网络的时空 Transformer 图卷积网络交通流预测方法	
Liuyan Jin	Tsinghua Univ.
Mingmao Hu	Hubei Univ. of Automotive Technology
Xing Zhang	Tsinghua Univ.
Yu Jiang	Suzhou Yuanzi Intelligent Technology Co., Ltd.
Zheng Qiu	Tsinghua Univ.
Jihong Zhu	Tsinghua Univ.
08:16-08:24	A2.3
1565 <i>Deep reinforcement learning for time-splitting MF-RIS-assisted anti-jamming communications</i>	
Yiting Hong	Southeast Univ.
He Wang	Southeast Univ.
Wenwu Yu	Southeast Univ.
08:24-08:32	A2.4
1235 <i>Task-guided one-step flow-based infrared generation for visual place recognition</i>	
Liangzheng Sun	Beijing Information Science and Technology Univ.
Mengfan He	Tsinghua Univ.
Xingyu Shao	Tsinghua Univ.
Kai Zhou	Tsinghua Univ.
Mingli Dong	Beijing Information Science and Technology Univ.

Chunyu Li	Beijing Institute of Technology
Ziyang Meng	Tsinghua Univ.
Fei Xing	Tsinghua Univ.
08:32-08:40	A2.5
260 <i>Simple soft actor-critic: α-adaptive SAC based on critic evaluation</i>	
Jiawei Zhao	Xi'an Research Institute of Hi-tech
Jieyu Liu	Xi'an Research Institute of Hi-tech
Wei Luo	Xi'an Research Institute of Hi-tech
Jun Zhu	Tsinghua Univ.
Dongfang Yang	Xi'an Research Institute of Hi-tech
Tao Zhang	Tsinghua Univ.
08:40-08:48	A2.6
839 <i>Functional-part grounding for robot command generation with failure-aware exploration</i>	
Hengxuan Xu	Tsinghua Univ.
Fengbo Lan	Tsinghua Univ.
Le Shi	Tsinghua Univ.
Guanhua Huang	Tsinghua Univ.
Tao Xue	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
08:48-08:56	A2.7
1409 <i>A semi-automatic annotation method for anti-UAV based on agent interaction</i>	
Zhiyang Sun	Sun Yat-sen Univ.
Jiajun Zhu	Sun Yat-sen Univ.
Chengwei Li	Sun Yat-sen Univ.
Junfei Chen	Sun Yat-sen Univ.
Yong Wang	Sun Yat-sen Univ.
08:56-09:04	A2.8
434 <i>Research on space non-cooperative target intent recognition based on BIGRU-SA-Transformer</i>	
Zhan Gao	Space Engineering Univ.
Ang Li	Space Engineering Univ.
Bin Wang	Space Engineering Univ.
Runnan Qin	National Space Science Center, CAS
09:04-09:12	A2.9
1275 <i>Structracker: UAV swarm tracking based on local formation-structure priors</i>	
Yongrui Zhang	Northwestern Polytechnical Univ.
Hua Lan	Northwestern Polytechnical Univ.
09:12-09:20	A2.10
1080 <i>Describe, do not judge: implicit knowledge injection for multimodal emotion recognition in embodied AI</i>	
Yuer Li	Tsinghua Univ.
Xiaohui Fan	Tsinghua Univ.
Wei Ren	Tsinghua Univ.
Feng Chen	Lenovo Research
Jun Xie	Lenovo Research
Zimeng Tan	Lenovo Research
Tao Xue	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
09:20-09:28	A2.11
1482 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

Chong Shen	North Univ. of China
09:28-09:36	A2.12
1136 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	
Kaiyun Hu	Nanjing Univ. of Aeronautics and Astronautics
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
09:36-09:44	A2.13
772 Hybrid modeling and control of a rotor-assisted wheel-legged robot	
Zhiheng Dai	Beihang Univ.
Xinglu Xia	Beihang Univ.
Zizhuo Cai	Beihang Univ.
Yiyu Wang	Beihang Univ.
Qidi Wang	Beihang Univ.
Zichun Guo	Beihang Univ.
Yingjian Xu	Beijing Aero King Technology Co., Ltd.
Yingxun Wang	Beihang Univ.
09:44-09:52	A2.14
1700 Safety assessment of logic control networks	
Yue Wu	Academy of Mathematics and Systems Sciences, CAS
Hongsheng Qi	Academy of Mathematics and Systems Sciences, CAS
09:52-10:00	A2.15
1510 A method for optimizing communication routing for domain control in mega-constellation remote sensing missions	
Pengfei Chen	Sichuan Univ.
Bin Li	Sichuan Univ.
Qinglong Huang	Shanghai Satellite Engineering Research Institute
Mingming Shi	Sichuan Univ.
A3	2nd Floor Lipu Room
Precision GNC	2层 荔浦厅
Chair: Zhi Xiong	
08:00-08:08	A3.1
528 Autonomous navigation error modeling and accuracy inversion of deep space probes based on optical sensors	
Zhicheng Wei	National Univ. of Defense Technology
Yuchen Li	National Univ. of Defense Technology
Bowen Hou	National Univ. of Defense Technology
08:08-08:16	A3.2
1186 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	
Yuhang Jia	Beihang Univ.
Jian Shi	Beihang Univ.
Shaoping Wang	Beihang Univ.
Rui Mu	Beihang Univ.
08:16-08:24	A3.3
218 Time-domain re-segmentation for LIDAR-only odometry and an origin-constrained trajectory evaluation method	
Xu Wen	Harbin Institute of Technology
Wei He	Shanghai Electro-Mechanical Engineering Institute

Ming Yang	Harbin Institute of Technology
Jiadong Yang	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
08:24-08:32	A3.4
420 Autonomous navigation methods for mega-constellations based on information interaction	
Weiyu Zhao	National Univ. of Defense Technology
Zisheng Fang	National Univ. of Defense Technology
Bowen Hou	National Univ. of Defense Technology
08:32-08:40	A3.5
140 A dual-layer game-inspired unscented Kalman filter approach for dynamic aerodynamic parameter identification of guided projectiles	
Jiachao Wu	Nanjing Univ. of Science and Technology
Jinwen Wang	Nanjing Univ. of Science and Technology
Hongxuan Che	Nanjing Univ. of Science and Technology
Chen Huang	Nanjing Univ. of Science and Technology
08:40-08:48	A3.6
463 Semi-physical simulation system design and verification for space target angular velocity estimation based on sequential images	
Bowen Hou	National Univ. of Defense Technology
Yijie Zhang	National Univ. of Defense Technology
08:48-08:56	A3.7
1223 Robust pedestrian navigation using graduated nonconvexity geman-mcclure cost	
Zheming Tu	National Univ. of Defense Technology
Yan Guo	National Univ. of Defense Technology
Wenqi Wu	National Univ. of Defense Technology
Xianfei Pan	National Univ. of Defense Technology
08:56-09:04	A3.8
392 Enhanced LIVO: LiDAR-assisted visual feature optimization for challenging environments	
Yuanhao Qiu	Beijing Institute of Technology
Yuhang Zhang	Beijing Institute of Technology
Yan Yang	Beijing Institute of Technology
Haikuo Liu	Beijing Institute of Technology
Changkun Du	China Aerospace Science and Industry Corporation
Zhen Li	Beijing Institute of Technology
09:04-09:12	A3.9
502 基于高斯混合置信传播的无人机群协同导航方法	
Mingxing Chen	Anhui Institute of Technology
Zhi Xiong	Nanjing Univ. of Aeronautics and Astronautics
Li Guo	Anhui Institute of Technology
Tanglin Chen	China Skyero Aero-Engine Maintenance Co., Ltd.
09:12-09:20	A3.10
716 一种基于运动条件约束更新的视觉惯性里程计	
Yiading Han	Nanjing Univ. of Aeronautics and Astronautics
Ling Zhang	Nanjing Univ. of Aeronautics and Astronautics
Jingqi Wang	Nanjing Univ. of Aeronautics and Astronautics
Zhiming Zhou	Nanjing Univ. of Aeronautics and Astronautics

	Astronautics
Xiang Gao	Nanjing Univ. of Aeronautics and Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics and Astronautics
09:20-09:28	A3.11
717	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
Yifan 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
09:28-09:36	A3.12
1151	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
09:36-09:44	A3.13
1324	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
1078	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
123	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
A4	2nd Floor Nanning Room1

Advanced GNC	2层 南宁厅 1
Chair: Pin Lyu	
08:00-08:08	A4.1
175	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
274	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
1665	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
669	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
743	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
1037	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
864	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
680	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	
1495 <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	
667 <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	
568 <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	
1406 <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	
590 <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	
190 <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	
228 <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
A5 2nd Floor Nanning Room2	
Planning GNC 2层 南宁厅 2	
Chair: Jiang Zhao	
08:00-08:08	A5.1
1158 <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
1708 <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
1709 <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
311 <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
337 <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
341 <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

422 *A three-dimensional high-precision guidance strategy for 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

Chair: 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
Yanning Guo	Harbin Institute of Technology
08:56-09:04	A6.8
171 JGH A*: JPS-guided hybrid A* for efficient and kinematically feasible vehicle pathfinding	
Jiadong Yang	Harbin Institute of Technology
Wei He	Shanghai Electro-Mechanical Engineering Institute
Xu Wen	Harbin Institute of Technology
Xiaofeng Han	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
09:04-09:12	A6.9
971 Flight plan correction method based on PSO	
Yuning Song	Beijing Keeven Aviation Instrument Co., Ltd.
09:12-09:20	A6.10
1121 Reinforcement learning-based UAV path planning method with integrated ORCA safety constraints	
Peng Wang	Civil Aviation Univ. of China
Hao Chang	Civil Aviation Univ. of China
Nan Xu	Civil Aviation Univ. of China
Jingyi Qu	Civil Aviation Univ. of China
09:20-09:28	A6.11
1751 Active reconstruction of planetary surface topography based on next best view selection	
Chuxuan Liu	Nanjing Univ. of Aeronautics and Astronautics
Chenxi Lu	Nanjing Univ. of Aeronautics and Astronautics
Meng Yu	Nanjing Univ. of Aeronautics and Astronautics
09:28-09:36	A6.12
1393 基于梯次优化的低空物流自适应集群任务分配	
Sijia Liu	Institute of Automation, CAS
Xiaolin Ai	Institute of Automation, CAS
Zhiqiang Pu	Institute of Automation, CAS
09:36-09:44	A6.13
367 自监督 LSTM 增强的视觉惯性里程计	
Bo Yang	Nanjing Univ. of Posts and Telecommunications
Chao Wang	Shanghai Huace Navigation Technology Co., Ltd.
Yifan Zhou	Nanjing Univ. of Posts and Telecommunications
Feng Zhou	Nanjing Univ. of Posts and Telecommunications
Wenbo Zhang	Nanjing Univ. of Posts and Telecommunications
Jun Xiong	Nanjing Univ. of Posts and Telecommunications
09:44-09:52	A6.14
1246 Data-driven synthesis of optimal stealthy attacks in multi-agent systems	
Shiyong Zhu	City Univ. of Hong Kong
Kangkang Zhang	Nanjing Univ. of Aeronautics and

	Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
Jie Chen	City Univ. of Hong Kong
09:52-10:00	A6.15
612 Influence of tanker status on the dynamic behavior of the aerial refueling probe-drogue System	
Linhan Qiao	Northwestern Polytechnical Univ.
Zehua Zhang	Northwestern Polytechnical Univ.
Jiashuo Liu	Northwestern Polytechnical Univ.
Su Yang	Northwestern Polytechnical Univ.
Shihao Zhao	Northwestern Polytechnical Univ.
Zimeng Wu	Northwestern Polytechnical Univ.
Zicheng Fan	Northwestern Polytechnical Univ.
Yaohong Qu	Northwestern Polytechnical Univ.
A7 2nd Floor Longsheng Room	
Formation GNC 2层 龙胜厅	
Chair: Maolong Lv	
08:00-08:08	A7.1
165 Robust bipartite consensus of multi-agent systems over signed graphs with edge-wise communication uncertainties	
Miao Liu	Nanjing Tech Univ.
Shenglong Wu	Nanjing Tech Univ.
Mingxing Ke	National Univ. of Defense Technology
Shaopan Guo	Nanjing Tech Univ.
Long Xiao	Nanjing Tech Univ.
08:08-08:16	A7.2
1234 Distributed predefined-time time-varying optimal formation for multi-agent systems	
Jin Tan	Northeastern Univ.
Bingjie Wang	Northeastern Univ.
Tianyuan Wang	Northeastern Univ.
Tao Yang	Northeastern Univ.
08:16-08:24	A7.3
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	
Liang Zhang	Anhui Univ.
08:24-08:32	A7.4
1666 Learning-based safe optimal avoidance control for nonlinear systems with dynamic obstacles	
Ping Wang	Beijing Information Science and Technology Univ.
Chengpu Yu	Beijing Institute of Technology
Junfang Fan	Beijing Information Science and Technology Univ.
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.
Wenfei Wang	Air Force Engineering Univ.
Rui Zhu	Air Force Engineering Univ.
Yang Li	Northwestern Polytechnical Univ.
08:48-08:56	A7.7
306 <i>Research on UAV/UGV cooperative formation change and tracking methods</i>	
Longhao Liu	Air Force Engineering Univ.
Le Ru	Air Force Engineering Univ.
Yifan Li	Unit 94754
08:56-09:04	A7.8
436 <i>Three-dimensional optimal cooperative line-of-sight guidance for aircraft active defense</i>	
Qunchang Gao	Beijing Institute of Technology
Junhui Li	Beijing Institute of Technology
Shaoming He	Beijing Institute of Technology
09:04-09:12	A7.9
517 <i>Field-of-view constrained optimal three-dimensional impact angle control guidance</i>	
Tianhao Jiang	Beijing Institute of Technology
Shaoming He	Beijing Institute of Technology
09:12-09:20	A7.10
585 <i>Manned-unmanned cooperative air combat task allocation strategy: a Hungarian algorithm-based design approach</i>	
Fangbo Xiao	Air Force Engineering Univ.
Tongyu Shi	Air Force Engineering Univ.
maolong Lv	Air Force Engineering Univ.
Xitong Han	Air Force Engineering Univ.
Chenbo Ding	Air Force Engineering Univ.
09:20-09:28	A7.11
586 <i>Deep reinforcement learning-based adaptive parameter tuning for UAV swarm trajectory optimization in cluttered environments</i>	
Yuchen Li	Air Force Engineering Univ.
Maolong Lv	Air Force Engineering Univ.
Yuntao Xue	Taiyuan Univ. of Technology
09:28-09:36	A7.12
587 <i>Adaptive optimization method for drone formation parameters based on deep reinforcement learning</i>	
Xuanhao Liang	Air Force Engineering Univ.
Maolong Lv	Air Force Engineering Univ.
Yuntao Xue	Taiyuan Univ. of Technology
09:36-09:44	A7.13
588 <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
836 <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
Chenning Zhang	Xidian Univ.
Jiaxuan Ren	Xidian Univ.
Pei Dai	Xidian Univ.
Dongzhu Feng	Xidian Univ.
09:52-10:00	A7.15
1567 <i>Performance comparison of multi-parameter estimation in trajectory prediction of reentry glide vehicles and analysis of data scale effects</i>	
Yichen Liu	Air Force Engineering Univ.
Chijun Zhou	Air Force Engineering Univ.
Xueqian Wang	Air Force Engineering Univ.
Jikun Ye	Air Force Engineering Univ.
A8 2nd Floor Guilin Room 1 Intelligent GNC 2 层 桂林厅 1	
Chair: Lin Chen	
08:00-08:08	A8.1
297 <i>Robust coordination of humanoid upper-body via adaptive weighted damped least squares</i>	
Yunze Shi	AVIC Xi'an Flight Automatic Control Research Institute
Ziyi Liu	AVIC Xi'an Flight Automatic Control Research Institute
Bonan Yuan	AVIC Xi'an Flight Automatic Control Research Institute
Lei Zhou	AVIC Xi'an Flight Automatic Control Research Institute
08:08-08:16	A8.2
307 <i>Cooperative path planning and multi-objective trajectory optimization for dual-arm robotic systems in complex operational environments</i>	
Bonan Yuan	AVIC Xi'an Flight Automatic Control Research Institute
Chenxiao Jiu	AVIC Xi'an Flight Automatic Control Research Institute
Qiang Tang	AVIC Xi'an Flight Automatic Control Research Institute
Zhipeng Sun	AVIC Xi'an Flight Automatic Control Research Institute
Yunze Shi	AVIC Xi'an Flight Automatic Control Research Institute
08:16-08:24	A8.3
387 <i>Offline genetic algorithm-based PID auto-tuning for embodied intelligent pilot under composite delays</i>	
Chulei Meng	AVIC Xi'an Flight Automatic Control Research Institute
Minghui Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Hao Wang	AVIC Xi'an Flight Automatic Control Research Institute
08:24-08:32	A8.4
485 <i>SLAM and hierarchical fusion for humanoid robot interaction: an aircraft parts explanation assistant</i>	
Weitong Liu	AVIC Xi'an Flight Automatic Control Research Institute
Shaolong Song	AVIC Xi'an Flight Automatic Control

	Research Institute	
Bowei Wang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Xiaole Xu	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Yifan Ge	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Xiwen Yao	Northwestern Polytechnical Univ.	
08:32-08:40	A8.5	
672 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	
	Integrated Flight Control	
Minghui Zhang	National Key Laboratory of Aircraft	
	Integrated Flight Control	
08:40-08:48	A8.6	
759 <i>intelligent autonomous obstacle avoidance and control for small high-speed fixed-wing UAVs</i>		
Linqi Zhan	Tsinghua Univ.	
Kang Wang	Tsinghua Univ.	
08:48-08:56	A8.7	
858 <i>Pilot agent technology: Framework, applications and challenges</i>		
Rong Ma	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Weijia Wang	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Zhipeng Sun	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Dihong Pan	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Kaihao Wen	National Key Laboratory of Aircraft	
	Integrated Flight Control	
08:56-09:04	A8.8	
872 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 Control	
	Research Institute	
Kexin Dang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Bonan Yuan	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Wei Zhang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
09:04-09:12	A8.9	
1362 <i>Voice coordination and formation control for airborne operations based on collaborative tags</i>		
Quanlin Qi	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Ziming Liu	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Jinzhao Zhang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Weijia Wang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
09:12-09:20	A8.10	
1442 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 Control	
	Research Institute	

Yuda Gao	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Lei Zhou	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Bonan Yuan	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Zhipeng Sun	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Ziyi Liu	AVIC Xi'an Flight Automatic Control	
	Research Institute	
09:20-09:28	A8.11	
1466 <i>Ensuring safety in autonomous aircraft manipulation via time-optimal planning and multi-modal compliant control</i>		
Kaihao Wen	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Dihong Pan	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Zhipeng Sun	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Weijia Wang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Rong Ma	AVIC Xi'an Flight Automatic Control	
	Research Institute	
09:28-09:36	A8.12	
1488 <i>Task-oriented motion planning method for manipulator system in aviation scenarios</i>		
Dihong Pan	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Kaihao Wen	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Weijia Wang	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Zhipeng Sun	National Key Laboratory of Aircraft	
	Integrated Flight Control	
Rong Ma	National Key Laboratory of Aircraft	
	Integrated Flight Control	
09:36-09:44	A8.13	
1740 <i>Task-conditioned modeling and control strategies for dual-arm manipulation: a concise critical review</i>		
Ziyi Liu	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Yunze Shi	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Bonan Yuan	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Yuda Gao	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Kexin Dang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Yuxuan Sun	AVIC Xi'an Flight Automatic Control	
	Research Institute	
09:44-09:52	A8.14	
449 <i>Low-frequency deployment of whole-body control algorithm for humanoid robots based on prioritized tasks</i>		
Guanjie Wang	AVIC Xi'an Flight Automatic Control	
	Research Institute	
Yunze Shi	AVIC Xi'an Flight Automatic Control	

Ke Yu	Research Institute AVIC Xi'an Flight Automatic Control Research Institute
09:52-10:00	A8.15
515 <i>Technical requirements for comprehensive testing of modular wires in civil aircraft EWIS</i>	
Ci An	COMAC Shanghai Aircraft Design and Research Institute
A9	2nd Floor Guilin Room 2
Recognition GNC	2 层 桂林厅 2
Chair: Qingkai Meng	
08:00-08:08	A9.1
102 <i>CY-LIO: LIDAR-Inertial SLAM enhanced by semantic segmentation</i>	
Qiang Xu	Nanjing Univ. of Science and Technology
Liu He	Nanjing Univ. of Science and Technology
Siyuan Chen	Nanjing Univ. of Science and Technology
Li Yang	Nanjing Univ. of Science and Technology
08:08-08:16	A9.2
116 <i>Inertial initial alignment method based on multi-depth temporal convolutional networks in GNSS-Denied</i>	
Hongxuan Che	Nanjing Univ. of Science and Technology
Jinwen Wang	Nanjing Univ. of Science and Technology
Jiachao Wu	Nanjing Univ. of Science and Technology
Xian Wu	Nanjing Univ. of Science and Technology
08:16-08:24	A9.3
159 <i>Kinematic benchmark driven body odometer for step parameters estimation in pedestrian dead reckoning</i>	
Zhe Li	Beijing Institute of Technology
Sizhu Ren	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
08:24-08:32	A9.4
261 <i>Attention-Guided fusion module for refining cross-view feature interaction in UAV localization</i>	
Peng Wan	Nanjing Univ. of Science and Technology
Yiyang Xu	Nanjing Univ. of Science and Technology
Linfei Tian	Nanjing Univ. of Science and Technology
Yichen Wang	Nanjing Univ. of Science and technology
Xiangyi Ma	Nanjing Univ. of Science and technology
Xiaomo Wen	Nanjing Univ. of Science and Technology
08:32-08:40	A9.5
325 <i>LSTM-Enhanced system-level calibration for attitude determination in MEMS RMINS</i>	

Ansheng Chen	Beihang Univ.
Jianli Li	Beihang Univ.
Jieping Yu	Beijing Institute of Automatic Control Equipment
Chunyu Qu	Beihang Univ.
08:40-08:48	A9.6
465 <i>Multi-AUV cooperative navigation with out-of-sequence measurement compensation and deep learning-based process noise modeling</i>	
Kewei Yu	Beijing Institute of Technology
Zhaonan Jiao	Beijing Institute of Technology
Shengwu Zhao	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
08:48-08:56	A9.7
1203 <i>L5959earning-based gait sequence prediction-assisted key event detection for foot kinematics/INS integrated positioning</i>	
Ping Zhang	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
Wenhao Qi	Beijing Institute of Technology
Jiesi Dong	Beijing Institute of Technology
08:56-09:04	A9.8
1395 <i>Direction-enhanced attention for point cloud semantic segmentation in railway scenes</i>	
Qingchen Zhou	Nanjing Univ. of Science and Technology
Liu He	Nanjing Univ. of Science and Technology
Li Yang	Nanjing Univ. of Science and Technology
Wei Zhou	Nanjing Univ. of Science and Technology
09:04-09:12	A9.9
1400 <i>RCPPPO: Dynamic obstacle avoidance with spatiotemporal attention and topology-constrained reinforcement learning</i>	
Chao Wan	Nanjing Univ. of Science and Technology
Liu He	Nanjing Univ. of Science and Technology
Siyuan Chen	Nanjing Univ. of Science and Technology
Li Yang	Nanjing Univ. of Science and Technology
09:12-09:20	A9.10
1747 <i>Deep learning-based full-temperature compensation method for damping non-uniformity drift in whole-angle mode hemispherical resonator gyroscopes</i>	
Haoqian Zhang	Tianjin Navigation Instruments Research Institute
Yuanyuan Shi	Tianjin Navigation Instruments Research Institute
Songpu Yang	Tianjin Navigation Instruments Research Institute
Chenkai Jia	Tianjin Navigation Instruments Research Institute
Chunlei Ding	Tianjin Navigation Instruments Research Institute
09:20-09:28	A9.11
278 <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.
Haoying Pang	Beihang Univ.
09:28-09:36	A9.12
1514 <i>A CAR and Multi-Lock MVMD-based denoising method for MCG signals</i>	
Runqi Pan	Beihang Univ.
Xinxu Zhou	Beihang Univ.
Wenlei Zhao	Beihang Univ.
09:36-09:44	A9.13
595 <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
Qingkai Meng	Nanjing Univ. of Aeronautics and Astronautics
Hao Yang	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
09:44-09:52	A9.14
521 <i>Conic trajectory based adaptive terminal guidance strategy with impact angle constraints</i>	
Kaiyu Suo	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
Erzhuo Niu	AVIC Xi'an Flight Automatic Control Research Institute
Yu Fan	AVIC Xi'an Flight Automatic Control Research Institute
09:52-10:00	A9.15
544 <i>A modeling and analysis method for UAV swarm air combat based on the lancaster equation</i>	
Xiaoguang Wang	Air Force Engineering Univ.
Xiaoping Wang	Air Force Engineering Univ.
Hongbo Li	Air Force Engineering Univ.
A10 2nd Floor VIP Room 2	
Aircraft GNC 2层 贵宾厅 2	
Chair: Zibo Wei	
08:00-08:08	A10.1
821 <i>Robust control of morphing flight based on linear active disturbance rejection method</i>	
Jing Xu	COMAC Shanghai Aircraft Design and Research Institute
Zeyu Kang	COMAC Shanghai Aircraft Design and Research Institute
Zibo Wei	COMAC Shanghai Aircraft Design and Research Institute
Chao Zhou	COMAC Shanghai Aircraft Design and Research Institute
08:08-08:16	A10.2
315 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
Shaolong Song	AVIC Xi'an Flight Automatic Control Research Institute
Yuda Gao	AVIC Xi'an Flight Automatic Control Research Institute
08:16-08:24	A10.3
217 <i>A localizer control method based on trajectory planning for civil aircraft</i>	
Shenjiang Wang	COMAC Shanghai Aircraft Design and Research Institute
Haonan Xu	COMAC Shanghai Aircraft Design and Research Institute
08:24-08:32	A10.4
378 <i>A comparative study of model order reduction algorithms for high-fidelity aeroelastic civil aircraft models</i>	
Shuo Chang	COMAC Shanghai Aircraft Design and Research Institute
Yingchun Shen	COMAC Shanghai Aircraft Design and Research Institute
08:32-08:40	A10.5
685 <i>Design and simulation of AFCS flight level change mode control law for civil aircraft</i>	
Weijie Lyu	COMAC Shanghai Aircraft Design and Research Institute
Jiahao Zhang	COMAC Shanghai Aircraft Design and Research Institute
Chao Zhou	COMAC Shanghai Aircraft Design and Research Institute
Zeyu Kang	COMAC Shanghai Aircraft Design and Research Institute
08:40-08:48	A10.6
911 <i>Research on the voting mechanism for flight control systems utilizing triple-redundant flight management signals</i>	
Ziyan Shao	COMAC Shanghai Aircraft Design and Research Institute
Ziqin Xu	COMAC Shanghai Aircraft Design and Research Institute
Chang Liu	COMAC Shanghai Aircraft Design and Research Institute
08:48-08:56	A10.7
944 <i>Design of the control law for the Auto-Throttle speed mode based on speed guidance</i>	
Chao Zhou	COMAC Shanghai Aircraft Design and Research Institute
Jianwei Guo	COMAC Shanghai Aircraft Design and Research Institute
Jing Xu	COMAC Shanghai Aircraft Design and Research Institute
Jiahao Zhang	COMAC Shanghai Aircraft Design and Research Institute
Weijie Lyu	COMAC Shanghai Aircraft Design and Research Institute
08:56-09:04	A10.8
1153 <i>Analysis of glide path deviation signals and redundancy management for civil aircraft</i>	

Chang Liu	COMAC Shanghai Aircraft Design and Research Institute
Haonan Xu	COMAC Shanghai Aircraft Design and Research Institute
Ziqin Xu	COMAC Shanghai Aircraft Design and Research Institute
09:04-09:12	A10.9
1174 <i>An AFCS-based adaptive flare control method for civil aircraft CAT III autoland</i>	
Zeyu Kang	COMAC Shanghai Aircraft Design and Research Institute
Peng Xie	COMAC Shanghai Aircraft Design and Research Institute
Zibo Wei	COMAC Shanghai Aircraft Design and Research Institute
Chenyang Zhao	COMAC Shanghai Aircraft Design and Research Institute
Haonan Xu	COMAC Shanghai Aircraft Design and Research Institute
Qiang Shen	Shanghai Jiao Tong Univ.
09:12-09:20	A10.10
1181 <i>Research on the timing-threshold consistency design method for multiple monitors in civil aircraft fly-by-wire flight control systems</i>	
Zhengyu Xie	COMAC Shanghai Aircraft Design and Research Institute
Qi Chen	COMAC Shanghai Aircraft Design and Research Institute
Xiaomei Wang	COMAC Shanghai Aircraft Design and Research Institute
09:20-09:28	A10.11
1241 <i>Design of go-around guidance control law for civil aircraft based on fault adaptation and FPA constraint</i>	
Runmu Yang	COMAC Shanghai Aircraft Design and Research Institute
Zibo Wei	COMAC Shanghai Aircraft Design and Research Institute
Shenjiang Wang	COMAC Shanghai Aircraft Design and Research Institute
09:28-09:36	A10.12
1418 <i>Distributed flight control system design based on multi-agent technology</i>	
Hongyan Hu	COMAC Shanghai Aircraft Design and Research Institute
Peng Zhao	COMAC Shanghai Aircraft Design and Research Institute
09:36-09:44	A10.13
1487 <i>Sensitivity analysis of automatic landing systems based on random forest</i>	
Qinyu Wei	COMAC Shanghai Aircraft Design and Research Institute
Jianfeng Miao	COMAC Shanghai Aircraft Design and Research Institute
Haonan Xu	COMAC Shanghai Aircraft Design and Research Institute
Kaiyu LI	COMAC Shanghai Aircraft Design and Research Institute

Zeyu Kang	COMAC Shanghai Aircraft Design and Research Institute
09:44-09:52	A10.14
1716 <i>Safety analysis and design of a stall protection system based on simulink modeling</i>	
Bei Liu	COMAC Shanghai Aircraft Design and Research Institute
Zhaoliang Zhang	COMAC Shanghai Aircraft Design and Research Institute
Kezhi Zhang	COMAC Shanghai Aircraft Design and Research Institute
Haowen Wu	Shanghai Aircraft Airworthiness Certification Center of CAAC
Yue Shen	Shanghai Aircraft Airworthiness Certification Center of CAAC
09:52-10:00	A10.15
453 <i>Research on UAV task allocation algorithm based on adaptive exploration D3QN</i>	
Yingke Liu	Northwestern Polytechnical Univ.
Zuo Li	Northwestern Polytechnical Univ.
Yunpeng Cai	Northwestern Polytechnical Univ.
Zongwei Chai	Northwestern Polytechnical Univ.
Xiaoxiong Liu	Northwestern Polytechnical Univ.
A11	2nd Floor Beihai Room
Best Paper	2 层 北海厅
08:00-08:10	A11.1
227 <i>Fault attribution for dual-redundant IRS via adaptive multi-scale SPRT</i>	
Yuanmiao Niu	COMAC Shanghai Aircraft Design and Research Institute
Kezhi Zhang	COMAC Shanghai Aircraft Design and Research Institute
Haowen Wu	Shanghai Aircraft Airworthiness Certification Center of CAAC
Yue Shen	Shanghai Aircraft Airworthiness Certification Center of CAAC
Zhaoliang Zhang	COMAC Shanghai Aircraft Design and Research Institute
08:10-08:20	A11.2
1060 <i>Dual-Arm drive-control system for an embodied intelligent pilot: Spherical arc task mapping, base design, and closed-loop flight simulation verification</i>	
Zhipeng Sun	AVIC Xi'an Flight Automatic Control Research Institute
Bonan Yuan	AVIC Xi'an Flight Automatic Control Research Institute
Rong Ma	AVIC Xi'an Flight Automatic Control Research Institute
Dihong Pan	AVIC Xi'an Flight Automatic Control Research Institute
Kaihao Wen	AVIC Xi'an Flight Automatic Control Research Institute
08:20-08:30	A11.3
1339 <i>Closed-Loop performance assessment and generalized importance measure under multi-source uncertainty: A case study on electro-hydrostatic actuator</i>	
Rentong Chen	Beihang Univ.

Pengcheng Ren	Beihang Univ.	Tao Zhang	Tsinghua Univ.
Yuwei Zhang	Beihang Univ.	09:40-09:50	A11.11
Chao Zhang	Beihang Univ.	736 Adaptive reentry guidance for hypersonic vehicles in no-fly zones via reinforcement learning	
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
1357 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	744 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
146 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	780 Distributed online aggregative optimization using mirror descent	
281 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.
388 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.	928 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
470 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.	963 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
668 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.	996 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
688 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.	1131 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
11:00-11:10	A11.18
1137 <i>A blockchain-integrated C-SLAM framework for multi-robot systems</i>	
Wei Yue	Zhejiang Univ.
Chengcheng Zhao	Zhejiang Univ.
Peng Cheng	Zhejiang Univ.
11:10-11:20	A11.19
1228 <i>A distributed event-triggered reinforcement learning approach for containment control of heterogeneous multi-agent systems</i>	
Mengna Quan	Guangxi Normal Univ.
Shanlin Sun	Guilin Univ. of Aerospace Technology
Shike Long	Guilin Univ. of Aerospace Technology
11:20-11:30	A11.20
1242 <i>A weighted intelligent encirclement method based on reinforcement learning for multiple pursuers under complex environments</i>	
Wendixin Lai	Kunming Univ. of Science and Technology
Chunxi Yang	Kunming Univ. of Science and Technology
Xiufeng Zhang	Kunming Univ. of Science and Technology
Jing Na	Kunming Univ. of Science and Technology
Jiande Wu	Yunnan Univ.
11:30-11:40	A11.21
1252 <i>Continuous-time Monte Carlo Tree Search with physical priors and event-driven replanning for multi-agent multi-target interception</i>	
Yuhao Yan	Harbin Institute of Technology
Xinran Zhang	Harbin Institute of Technology
Zhaochen Lin	Harbin Institute of Technology
Tianyu Zheng	Harbin Institute of Technology
Yu Yao	Harbin Institute of Technology
Fenghua He	Harbin Institute of Technology
11:40-11:50	A11.22
1553 <i>MALHA: Language-guided hierarchical coordination for multi-agent systems</i>	
Weihao Zhang	Univ. of Chinese Academy of Science
Zhiqiang Pu	Univ. of Chinese Academy of Science
Yuan Wang	Univ. of Chinese Academy of Science
Chengjie Sun	Harbin Institute of Technology
Xiaolin Ai	Univ. of Chinese Academy of Science
Min Chen	Univ. of Chinese Academy of Science
A12	2nd Floor Aisle
Poster Session	2 层连廊厅
Chair: Xiaoran Li	
08:00-10:00	A12.1
149 <i>Research of high-dimensional multi-objective vehicle-to-everything task offloading control under dynamic constraint scenarios</i>	
Qian Wang	Taiyuan Univ. of Science and Technology
Jingbo Zhang	Taiyuan Univ. of Science and Technology
Tianhao Zhao	Taiyuan Univ. of Science and Technology
Linjie Wu	Taiyuan Univ. of Science and Technology

Xin Mao	Taiyuan Univ. of Science and Technology
Zhihua Cui	Taiyuan Univ. of Science and Technology
08:00-10:00	A12.2
207 <i>Leader-Follower linear-quadratic stochastic graphon games</i>	
Weijia Chen	Shandong Univ.
Jingtao Shi	Shandong Univ.
08:00-10:00	A12.3
262 <i>Cooperative trajectory planning for aerial refueling via adaptive sequential convex optimization</i>	
Zimeng Wu	Northwestern Polytechnical Univ.
Zhuoyi Wang	Northwestern Polytechnical Univ.
Su Yang	Northwestern Polytechnical Univ.
Yaohong Qu	Northwestern Polytechnical Univ.
08:00-10:00	A12.4
360 <i>EKOA:一种用于无人机三维航迹规划的高效开普勒优化算法</i>	
Hao Yang	AVIC Chengdu Aircraft Design and Research Institute
Zhaoxu Yang	AVIC Chengdu Aircraft Design and Research Institute
Chenggang Tao	AVIC Chengdu Aircraft Design and Research Institute
TianCai Wan	AVIC Chengdu Aircraft Design and Research Institute
08:00-10:00	A12.5
383 <i>Disturbance-resilient formation control of multi-UAVs based on barrier function</i>	
Ruian Wang	Shandong Univ. of Aeronautics
Tong Mei	Shandong Univ. of Aeronautics
Wei Hao	Shandong Univ. of Aeronautics
Bin Zhang	Shandong Univ. of Aeronautics
Wenlai Ma	Shandong Univ. of Aeronautics
08:00-10:00	A12.6
402 <i>Non-singular Incremental fault-tolerant control for aircraft with adjustable predefined-time convergence performance</i>	
Shan Huang	Northwestern Polytechnical Univ.
Yihua Hu	Aviation Industry Development Research Center of China
Jiahang Lai	AVIC Xi'an Flight Automatic Control Research Institute
Jingping Shi	Northwestern Polytechnical Univ.
Yongxi Lyu	Northwestern Polytechnical Univ.
Zhihui Du	Northwestern Polytechnical Univ.
08:00-10:00	A12.7
418 <i>Observer-augmented transformer-based model predictive control for quadrotor trajectory tracking</i>	
Haining Zhao	Hefei Univ. of Technology
Tao Wang	Hefei Univ. of Technology
Pengfei Li	Univ. of Science and Technology of China
Jian Di	Univ. of Science and Technology of China
Yu Kang	Hefei Univ. of Technology
08:00-10:00	A12.8
439 <i>VCMM-GS: Visual-centric multi-modal Gaussian SLAM for outdoor environments</i>	
Jiachen Wang	HongKong Univ. of Science and Technology (Guangzhou)
Haoang Li	Hong Kong Univ. of Science and

Technology (Guangzhou)			
08:00-10:00	A12.9		
499 <i>A variable mode yaw control method to improve the resistance to lateral disturbances during landing</i>			
Kezhi Zhang	Shanghai Aircraft Design & 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		
507 <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		
519 <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		
572 <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		
678 <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		
695 <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 Research Institute		
Guofei Li	Northwestern Polytechnical Univ.		
08:00-10:00	A12.15		
796 <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 Microsat Engineering Center		
Chun Liu	Shanghai Univ.		
08:00-10:00	A12.16		
887 <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		
1030 <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		
1359 <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		
1477 <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		
1503 <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		
1509 <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.
Wenyong Xu	Southeast Univ.
08:00-10:00	A12.22
1558 <i>A method of manned/unmanned intelligent cooperative air combat based on multi-agent situation awareness</i>	
Shangrongxi Sun	Fudan Univ.
Ye Wang	Fudan Univ.
Shuo Cui	Fudan Univ.
Yiming Wang	Fudan Univ.
Jianliang Ai	Fudan Univ.
08:00-10:00	A12.23
204 <i>Evolution of machine learning-driven intelligent positioning algorithms</i>	
Yifan Zhao	Hunan Institute of Engineering
Ziwei Huang	Hunan Institute of Engineering
Xiangling Luo	Hunan Institute of Engineering
Jingmei Wang	Hunan Institute of Engineering
08:00-10:00	A12.24
294 <i>线加速度计试验国家军用标准修订建议浅析</i>	
Wei Guan	State-owned Changhong Machinery Factory
Sulong Wu	State-owned Changhong Machinery Factory
Xuefeng Zeng	State-owned Changhong Machinery Factory
Yajun He	State-owned Changhong Machinery Factory
Yuxuan Zou	State-owned Changhong Machinery Factory
08:00-10:00	A12.25
303 <i>Research on independent innovation pathways for TAWS from the perspective of patent analysis</i>	
Fei Xue	COMAC Shanghai Aircraft Design and Research Institute
08:00-10:00	A12.26
407 <i>On the application of deep reinforcement learning in UAV swarm control</i>	
Jianping Yu	AVIC First Aircraft Design and Research Institute
Yuxiang Tang	AVIC First Aircraft Design and Research Institute
Kexin Li	AVIC First Aircraft Design and Research Institute
08:00-10:00	A12.27
460 <i>Control of electric vertical take-off and landing aircraft: developments and prospects</i>	
Xv Wang	Xiamen Univ.
Shaoping Shen	Xiamen Univ.
Zhibin Li	Shandong Univ. of Science and Technology
08:00-10:00	A12.28
767 <i>A review on autonomous navigation and planetary physical field parameter estimation for Ice giant exploration missions</i>	
Runyi Liu	Univ. of Chinese Academy of Sciences
Peng Han	Univ. of Chinese Academy of Sciences
Dong Gao	Univ. of Chinese Academy of Sciences
08:00-10:00	A12.29
1517 <i>A review of critical technologies in electric propulsion motor control</i>	
Weiping Yang	AVIC Xi'an Flight Automatic Control Research Institute
Xiaopeng Zhao	AVIC Xi'an Flight Automatic Control

Zhangjun Sun	Research Institute AVIC Xi'an Flight Automatic Control Institute
08:00-10:00	A12.30
1643 <i>Micro-vibration noise control technologies for laser communication satellites: A review</i>	
Yifan Wu	Beijing Ingstitute of Control Engineering
Jiang Liu	Beijing Ingstitute of Control Engineering
Fengjun Guo	Beijing Ingstitute of Control Engineering
08:00-10:00	A12.31
1686 <i>Risk-aware UAV path planning with GMM-Based uncertainty modeling and trajectory optimization</i>	
Rui Du	Southeast Univ.
Kelin Lu	Southeast Univ.
08:00-10:00	A12.32
1749 <i>On-orbit security protection technology</i>	
Geng Jie	Beijing Institute of Control Engineering
08:00-10:00	A12.33
312 <i>双轴离心机在惯性仪表复合矢量测试中的应用分析</i>	
Wei Guan	State-owned Changhong Machinery Factory
Yuxuan Zou	State-owned Changhong Machinery Factory
Quangui Zhou	State-owned Changhong Machinery Factory
Yuqiao Zhou	State-owned Changhong Machinery Factory
Zhikai Yang	State-owned Changhong Machinery Factory
08:00-10:00	A12.34
486 <i>A review of typical application scenarios for active sticks</i>	
Heming Dang	Chinese Flight Test Establishment
08:00-10:00	A12.35
5 <i>Nonlinear homotopy-penalty interior-point method for six-DoF powered landing guidance</i>	
Kai Chen	Zhejiang Univ.
Lorenz T. Biegler	Carnegie Mellon Univ.
Zhijiang Shao	Zhejiang Univ.
08:00-10:00	A12.36
10 <i>Research on composite control strategies for electro-hydrostatic actuators</i>	
Lei Fan	AVIC First Aircraft Design and Research Institute
Yong Yang	AVIC First Aircraft Design and Research Institute
Shuai Cao	AVIC First Aircraft Design and Research Institute
Yitao Huang	AVIC First Aircraft Design and Research Institute
08:00-10:00	A12.37
83 <i>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</i>	
ErFeng Su	AVIC Xi'an Flight Automatic Control Research Institute
ShaoYang Dong	AVIC Xi'an Flight Automatic Control Research Institute
Longhui Yao	AVIC Xi'an Flight Automatic Control Research Institute
08:00-10:00	A12.38
153 <i>Design of precise guidance law based on adaptive sliding mode and latitude and longitude</i>	
Xueqing Zhang	Shanghai Spaceflight Precision

Changxing Shao	Machinery Institute Shanghai Aerospace Precision Machinery Institute
Weixiao Wu	Shanghai Spaceflight Precision Machinery Institute
Mohan Zhao	Shanghai Spaceflight Precision Machinery Institute
MengCheng Zhu	Shanghai Aerospace Precision Machinery Institute
08:00-10:00	A12.39
182 <i>Predefined-time sliding mode control for aircraft attitude with actuator dynamics</i>	
Yikun Wei	Xidian Univ.
Suiping Zhou	Xidian Univ.
Jiahao Gan	AVIC Chengdu Aircraft Design and Research Institute
08:00-10:00	A12.40
229 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	
Gang Xu	Weifang Vocational College
Honghong Wang	Qingdao Univ.
Kai Wang	Qingdao Univ.
08:00-10:00	A12.41
247 <i>Research on stepper motor selection and adaptive PID control for the CSNS-II stripper foil system</i>	
YiCong Chen	Dongguan Univ. of Technology
Xuan Wu	Spallation Neutron Source Science Cente
Yi Qin	Dongguan Univ. of Technology
08:00-10:00	A12.42
269 <i>Nonlinear data driven control using optimal weight strategy</i>	
Tingting Bai	Army engineering Univ. of PLA
Jianhong Wang	Jiangxi Univ. of Science and Technology
08:00-10:00	A12.43
603 <i>Sliding mode control with actuator lag and dead-zone compensation for nonlinear flight control systems</i>	
JiaHui Zhang	Beijing Institute of Technology
Qiuqiu Wen	Beijing Institute of Technology
Zhen Chen	Beijing Institute of Technology
Yuxiang Chang	Beijing Institute of Technology
Junjie Ai	Beijing Institute of Technology
08:00-10:00	A12.44
640 <i>PPO-ESO parameter tuning method for tracking control of hypersonic flight vehicles</i>	
Xu Wang	Rocket Army Engineering Univ.
GuangBin Cai	Rocket Army Engineering Univ.
Yonghua Fan	Northwestern Polytechnical Univ.
Xuen Fan	Rocket Army Engineering Univ.
08:00-10:00	A12.45
718 <i>Data-driven actor-critic-identifier control for non-affine nonlinear systems under asymmetric time-varying constraints</i>	
Sibo Huang	Beijing Univ. of Technology
Yanting Huang	Beijing Univ. of Technology
Tian Chen	Beihang Univ.
08:00-10:00	A12.46
722 <i>Adaptive prescribed performance tracking control of reusable launch vehicle with input delay</i>	

Xiaowei Yu	Beijing Univ. of Technology
Xiaoli Li	Beijing Univ. of Technology
08:00-10:00	A12.47
822 <i>Adaptive fault-tolerant control design for MIMO nonlinear systems under mixed faults and output constraints</i>	
Yadong Liu	Hebei Univ. of Science and Technology
Canyang Zhao	Hebei Univ. of Science and Technology
Ning Zhou	Hebei Univ. of Science and Technology
Bing Cui	Beijing Institute of Technology
Guang Yang	Hebei Univ. of Science and Technology
Tiejun Li	Hebei Univ. of Science and Technology
08:00-10:00	A12.48
1023 <i>Data-driven stabilization of continuous-time linear systems via the matrix S-lemma</i>	
Yuhao Chen	Beihang Univ.
Jiang Zhao	Beihang Univ.
Yingxun Wang	Beihang Univ.
Pei Chi	Beihang Univ.
08:00-10:00	A12.49
1079 基于预定义时间滑模的高超声速飞行器鲁棒姿态控制	
Jiawei Wen	Nanjing Univ. of Aeronautics and Astronautics
Ben Yang	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
08:00-10:00	A12.50
1101 <i>Integrated target-vision-servo modeling and disturbance observer-based composite control for optoelectronic platforms</i>	
Huyi Peng	Beihang Univ.
Baopeng Zhu	Southeast Univ.
Yukai Zhu	Beihang Univ.
Weipeng Li	Beihang Univ.
Lu Wang	Changchun Institute of Optics, Fine Mechanics and Physics
08:00-10:00	A12.51
1112 <i>Mechanism-data-driven whole-body cooperative optimization control for mobile manipulators</i>	
Keming Chen	Beijing Univ. of Technology
Yanting Huang	Beijing Univ. of Technology
Honggui Han	Beijing Univ. of Technology
Kang Gao	China Electronics Technology Group Corporation
08:00-10:00	A12.52
1253 <i>Learning-based optimal guidance with predictive uncertainty estimation</i>	
Haoran Ma	Zhejiang Univ.
Zheng Chen	Zhejiang Univ.
08:00-10:00	A12.53
1321 <i>Backstepping super-twisting sliding mode control based on neural network disturbance observer</i>	
Yang Zhao	Beijing Aerospace Technology Institute
Xu Zha	Beijing Aerospace Technology Institute
Zhiyi Lu	Beijing Aerospace Technology Institute
Junyong Sun	Beijing Aerospace Technology Institute
08:00-10:00	A12.54
1377 <i>GPR-enhanced MPC for multirotor UAV control under wind disturbance</i>	

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

GNSS			
Yong Liu	Harbin Institute of Technology	Zhishuai Tang	COMAC Shanghai Aircraft Design and Research Institute
Fei Yu	Harbin Institute of Technology		
Ya Zhang	Harbin Institute of Technology	Xinghua Liu	COMAC Shanghai Aircraft Design and Research Institute
Zhijiang Yuan	Harbin Institute of Technology	Hairong Shen	COMAC Shanghai Aircraft Design and Research Institute
08:00-10:00	A12.68	08:00-10:00	A12.76
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		1005 Simulation study on fault-tolerant mechanism for TTE and TSN converged networks based on dynamic adaptive switching	
Jianzhong Yang	Civil Aviation Univ. of China	Ruiyang Ban	AVIC Shenyang Aircraft Design and Research Institute
Yujia Huang	Civil Aviation Univ. of China	Dong Zhang	AVIC Shenyang Aircraft Design and Research Institute
Xiyuan Chen	Civil Aviation Univ. of China	Weize Shang	AVIC Shenyang Aircraft Design and Research Institute
08:00-10:00	A12.69	Huasong Li	AVIC Shenyang Aircraft Design and Research Institute
1480 A sliding mode state observer based on adaptive prescribed performance constraints		Tianzhen Liang	AVIC Shenyang Aircraft Design and Research Institute
Yangxin Liu	Beijing Institute of Technology	08:00-10:00	A12.77
Fangzhou Jia	Beijing Institute of Technology	1191 A feature-enhanced intelligent fault diagnosis method for unmanned helicopters	
Qunli Xia	Beijing Institute of Technology	Darui Qi	Anhui Polytechnic Univ.
08:00-10:00	A12.70	Li Guo	Anhui Polytechnic Univ.
1676 Design of anti-disturbance control for high-precision turntable with flexible transmission		Yongjian Liu	Huaxia Yuntian Aircraft Engine Maintenance Co., Ltd
Yigong Zhang	Graduate School of Chinese Aeronautical Establishment	Runze Li	Anhui Polytechnic Univ.
08:00-10:00	A12.71	Yansong Wang	Anhui Polytechnic Univ.
324 Multi-source evidential deep learning for imbalanced open-set fault diagnosis of aero-engines		08:00-10:00	A12.78
Peng Han	Nanjing Univ. of Aeronautics and Astronautics	1511 Multivariate time series imputation based on multi-scale consistent diffusion model for electric submersible pump	
Zhiqiu Huang	Nanjing Univ. of Aeronautics and Astronautics	Liangcheng Wang	China Univ. of Petroleum (Beijing)
08:00-10:00	A12.72	Kang Li	China Univ. of Petroleum (Beijing)
652 WK-DMN: A physics-guided dynamic multi-scale network in the autocorrelation lag domain for robust condition monitoring of rolling element bearings		Xiaoyong Gao	China Univ. of Petroleum (Beijing)
Wei Quan	Xi'an Univ. of Technology	Chaodong Tan	China Univ. of Petroleum (Beijing)
Yongle Jia	Xi'an Univ. of Technology	08:00-10:00	A12.79
08:00-10:00	A12.73	1630 Unsupervised anomaly detection for flotation froth images based on deep feature representation	
779 Construction of knowledge graph for aircraft fault diagnosis		Xuecong Fan	North China Univ. of Science and Technology
Xiuxia Yang	Naval Aviation Univ.	Weiming Tian	North China Univ. of Science and Technology
Kanxin Feng	Harbin Engineering Univ.	Shuai He	North China Univ. of Science and Technology
08:00-10:00	A12.74	Shihong Han	North China Univ. of Science and Technology
816 基于混合专家信号—语义桥接的伺服机构故障诊断方法		Yuzhuo Yao	North China Univ. of Science and Technology
QiYi Zhang	Nanjing Univ. of Aeronautics and Astronautics	Zhiqiang Wang	North China Univ. of Science and Technology
YueHua Cheng	Nanjing Univ. of Aeronautics and Astronautics	08:00-10:00	A12.80
WeiGang Hu	Beijing Control and Electronics Technology Institute	1739 Incremental learning-based fault-tolerant adaptive control for unmanned aerial vehicle	
YuanHang Deng	Nanjing Univ. of Aeronautics and Astronautics	Yupei Zhang	Nanjing Univ. of Aeronautics and Astronautics
WeiDong Shi	Nanjing Univ. of Aeronautics and Astronautics	Xiaoyun Sun	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.75		
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		

	Astronautics
Xinhua Wang	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.81
1745 <i>Research on quality improvement of limit cycle for aviation two-stage DDV actuator based on DMAIC</i>	
Lizhi Wang	AVIC Xi'an Flight Automatic Control Research Institute
Longfei Liu	AVIC Xi'an Flight Automatic Control Research Institute
Weitong Zheng	AVIC Xi'an Flight Automatic Control Research Institute
Ruofan Li	AVIC Xi'an Flight Automatic Control Research Institute
Yaozhong Xu	AVIC Xi'an Flight Automatic Control Research Institute
Run Pang	AVIC Xi'an Flight Automatic Control Research Institute
08:00-10:00	A12.82
279 <i>Parameter optimization analysis of airborne gas-liquid accumulator</i>	
Hongjun Pang	Qingan Group, Co., Ltd.
Weijuan Zheng	Qingan Group, Co., Ltd.
08:00-10:00	A12.83
464 <i>A multi-faceted approach enhanced DBO for complex environment UAV navigation</i>	
Bei Zhang	Changji Univ.
Qiaoyu Zhou	Changji Univ.
08:00-10:00	A12.84
1216 助推滑翔飞行器内外弹道联合优化算法研究	
Hongbo Ding	Central South Univ.
Caisheng Wei	Central South Univ.
08:00-10:00	A12.85
1615 <i>PID control method for aircraft pitch channel based on improved SOA</i>	
Heming Dang	Chinese Flight Test Establishment
08:00-10:00	A12.86
118 <i>A decomposed multi-objective reinforcement learning algorithm integrating three-way decision theory</i>	
Zhiyu Zhang	Taiyuan Univ. of Science and Technology
Zhixia Zhang	Taiyuan Univ. of Science and Technology
Jie Wen	Taiyuan Univ. of Science and Technology
Qian Guo	Taiyuan Univ. of Science and Technology
Erliang Yao	Taiyuan Univ. of Science and Technology
Zhihua Cui	Taiyuan Univ. of Science and Technology
08:00-10:00	A12.87
120 <i>A target recognition method for CT images in lung disease diagnosis based on deep convolutional neural networks</i>	
Ye Song	Changchun Univ. of Technology
08:00-10:00	A12.88
199 <i>Workshop scheduling and energy efficiency improvement</i>	

<i>based on interval multi-task optimization</i>	
JunMin Yan	Taiyuan Univ. of Science and Technology
Linjie Wu	Taiyuan Univ. of Science and Technology
XingJuan Cai	Taiyuan Univ. of Science and Technology
Jie Wen	Taiyuan Univ. of Science and Technology
08:00-10:00	A12.89
340 <i>Anchor-gated neural adaptive kernel density estimation</i>	
Mingfei Lu	Xi'an Univ. of Architecture and Technology
Junqian Ma	Xi'an Univ. of Architecture and Technology
Jun Lei	Xi'an Univ. of Architecture and Technology
WeiQi Zhang	Xi'an Univ. of Architecture and Technology
Min Zhou	Northwestern Polytechnical Univ.
08:00-10:00	A12.90
458 <i>Coarse-to-fine pose estimation of noncooperative spacecraft based on iNeRF</i>	
Zilong Chen	Beihang Univ.
Haichao Gui	Beihang Univ.
Rui Zhong	Beihang Univ.
08:00-10:00	A12.91
557 <i>FDR U-Net: a frequency-directional refinement network for crack segmentation</i>	
Zhaoyong Xiao	Linyi Univ.
Zhen Wang	Linyi Univ.
Wenzhe Li	Linyi Univ.
Jingfeng Han	Linyi Univ.
Zheng Wang	Linyi Univ.
Feng Li	Linyi Univ.
08:00-10:00	A12.92
606 基于位平面置乱与多维混沌系统的图像加密算法	
Jia Wang	College of Humanities & Information Changchun Univ. of Technology
Qiong Wu	College of Humanities & Information Changchun Univ. of Technology
Bing Shi	College of Humanities & Information Changchun Univ. of Technology
Ye Song	College of Humanities & Information Changchun Univ. of Technology
08:00-10:00	A12.93
720 <i>Reinforcement learning-based terminal guidance for counter-unmanned aircraft systems under field-of-view constraints</i>	
Yawen Li	Xihua Univ.
Wenbing Chen	AVIC Chengdu Aircraft Design and Research Institute.
Shilong Yu	AVIC Chengdu Aircraft Design and Research Institute
Yongliang Wu	Xihua Univ.
Qifeng Jiang	Xihua Univ.
08:00-10:00	A12.94

725 Attention-augmented hierarchical reinforcement learning for autonomous decision and control		Longhua Tang	Guangdong Yuedianke Testing Technology Company Limited
Jiaxu Zhang	China Academy of Electronics and Information Technology	Jianbo Li	Guangdong Yuedianke Testing Technology Company Limited
08:00-10:00		A12.95	
820 Multi-objective optimization of SLWR buoyancy module parameters via MLP surrogate modeling and NSGA-II			
Zeyang Song	China Univ. of Petroleum (Beijing)	Yifei Dong	Guangdong Yuedianke Testing Technology Company Limited
Yu Song	China Univ. of Petroleum Beijing	Zhiwu Li	Guangdong Yuedianke Testing Technology Company Limited
08:00-10:00		A12.96	
1075 APF-FACO: a fuzzy ant colony algorithm with artificial potential field for multi-UAV 3-D path planning over communication networks			
Siya Liu	Beijing Jiao Tong Univ.	Dehua You	Guangdong Yuedianke Testing Technology Company Limited
Yibing Cui	Beijing Jiao Tong Univ.	Yang Jiao	Guangdong Yuedianke Testing Technology Company Limited
Yongguang Yu	Beijing Jiao Tong Univ.	08:00-10:00	
Wei Hu	Beijing Jiao Tong Univ.	A12.101	
1475 ASA-DETR: attention-guided selective alignment DETR for strain clamp defect detection in X-ray images			
08:00-10:00		A12.97	
1157 Multi-objective fuel dispatching optimization of thermal power units based on PHMMO algorithm with start-stop constraints			
Kaihui Zhu	Beihang Univ.	Jiaxiang Sun	Guangdong Yuedianke Testing Technology Company Limited
Mei Yuan	Beihang Univ.	Xin Li	Guangdong Yuedianke Testing Technology Company Limited
Lei Zhu	Beijing Normal Univ.	Wei Guo	Shantou Power Supply Bureau of Guangdong Power Grid Co., Ltd.
08:00-10:00		A12.98	
1194 Online aerodynamic identification for morphing aircraft via physics-aware reinforcement learning			
Bo Ding	Beihang Univ.	Hongshi Chen	Shantou Power Supply Bureau of Guangdong Power Grid Co., Ltd.
Chenzhi Li	Beihang Univ.	Yifei Dong	Guangdong Yuedianke Testing Technology Company Limited
Mingxuan He	Beihang Univ.	Ming Fu	Guangdong Yuedianke Testing Technology Company Limited
Song Jia	Beihang Univ.	Wang Ran	Guangdong Yuedianke Testing Technology Company Limited
08:00-10:00		A12.99	
1247 End-to-end UAV time-sensitive task execution based on differentiable quadratic programming			
Hao Jiang	Shanghai Jiao Tong Univ.	Fei Zhong	Guangdong Yuedianke Testing Technology Company Limited
Dan Huang	Shanghai Jiao Tong Univ.	Mengqiang Li	Guangdong Yuedianke Testing Technology Company Limited
Bochen Li	Shanghai Jiao Tong Univ.	Jianbo Li	Guangdong Yuedianke Testing Technology Company Limited
Lu Ding	Guang Xi Univ.	Wei Deng	Guangdong Yuedianke Testing Technology Company Limited
Chenggang Wang	Shanghai Jiao Tong Univ.	Fan Lu	Guangdong Yuedianke Testing Technology Company Limited
Lei Song	Shanghai Jiao Tong Univ.	Zhiwu Li	Guangdong Yuedianke Testing Technology Company Limited
08:00-10:00		A12.100	
1474 RTC-BiFPN-YOLOv8 for X-ray defect detection in strain clamps			
Jiaxiang Sun	Guangdong Yuedianke Testing Technology Company Limited	Yang Jiao	Guangdong Yuedianke Testing Technology Company Limited
Xin Li	Guangdong Yuedianke Testing Technology Company Limited	08:00-10:00	
Wei Guo	Shantou Power Supply Bureau of Guangdong Power Grid Co., Ltd.	A12.102	
Hongshi Chen	Shantou Power Supply Bureau of Guangdong Power Grid Co., Ltd.	1486 Continuous-space air traffic scenario generation: an intent-driven neuro-symbolic approach	
Fei Zhong	Guangdong Yuedianke Testing Technology Company Limited	Wenyi Tang	Nanjing Research Institute of Electronics Engineering
Dong Fu	Guangdong Yuedianke Testing Technology Company Limited	Yang Zhang	Nanjing Research Institute of Electronics Engineering
Leishi Xiao	Guangdong Yuedianke Testing Technology Company Limited	Hui Ding	Nanjing Research Institute of Electronics Engineering
		Zeyuan Liu	Nanjing Research Institute of Electronics Engineering
08:00-10:00		A12.103	

1537 Minutes-level SCD early warning using LMKNCN classification and correlation-based feature selection

Suwen Zhao	Guilin Univ. of Aerospace Technology
Danhong Song	Chongqing Univ.
Kaiyuan Nie	Chongqing Univ.
Jian Ding	Chongqing Univ.
Jizuo Zhang	Guilin University of Aerospace Technology
Hongying Liu	Chongqing Univ.
Xiantian Pi	Chongqing Univ.
08:00-10:00	A12.104

1559 A deep reinforcement learning and LSTM-based motion prediction control strategy for ship dynamic positioning

Changjun Hu	Shanghai Marine Electronic Equipment Research Institute
Quan Shi	CASCO Signal Ltd.
Xiaoxian Guo	Shanghai Jiao Tong Univ.
Xin Li	Shanghai Jiao Tong Univ.
08:00-10:00	A12.105

1587 Railway line detector data analysis using transformer and gradient boosting decision tree

Shijie Zhang	Beijing Information Science and Technology Univ.
Jingjing Huang	Beijing Information Science and Technology Univ.
Maofa Wang	Beijing Information Science and Technology Univ.
08:00-10:00	A12.106

1593 Low-altitude autonomous navigation for UAVs: evolution and future perspectives in the deep learning era

Ziqi Yang	Beihang Univ.
Yingjie Fu	China Helicopter Research and Development Institute
Jingfu Wei	China Helicopter Research and Development Institute
08:00-10:00	A12.107

1606 Evaluation model for flotation operating conditions based on attention-driven multimodal deep learning method

Shuai He	North China Univ. of Science and Technology
Zijie Zeng	North China Univ. of Science and Technology
Xuecong Fan	Hebei wind-Solar-Hydrogen-storage system Security Monitoring and Intelligent Operation Center of Technology Innovation
Zhixian Pei	North China Univ. of Science and Technology
YuXin Cheng	North China Univ. of Science and Technology
Zhiqiang Wang	North China Univ. of Science and Technology
08:00-10:00	A12.108

1706 YOLOv11 multi-scale enhanced detection network based on L-GLSA

Yuting Xiao	College of Humanities & Information Changchun Univ. of Technology
Qiong Wu	College of Humanities & Information Changchun Univ. of Technology
Changhua Tang	College of Humanities & Information Changchun Univ. of Technology
Xinlu Tian	College of Humanities & Information Changchun Univ. of Technology
Rui Meng	College of Humanities & Information Changchun Univ. of Technology
08:00-10:00	A12.109

1707 Research on image super-resolution method based on multi-resolution hashing coding

Wei Zhao	Jilin Police College
Changhua Tang	College of Humanities & Information, Changchun Univ. of Technology
Qiong Wu	College of Humanities & Information, Changchun Univ. of Technology
Bowen Shi	College of Humanities & Information, Changchun Univ. of Technology
08:00-10:00	A12.110

1732 Improved multi-scale YOLOv8 for small traffic sign detection in intelligent navigation systems

Lidong Zhao	College of Humanities & Information, Changchun Univ. of Technology
Qiong Wu	College of Humanities & Information, Changchun Univ. of Technology
ChangHua Tang	College of Humanities & Information, Changchun Univ. of Technology
Duorui You	College of Humanities & Information, Changchun Univ. of Technology
Jian Li	College of Humanities & Information, Changchun Univ. of Technology
08:00-10:00	A12.111

1744 Application of time-triggered ethernet in aircraft systems

Yanguo Hu	AVIC Shenyang Aircraft Design and Research Institute
Dong Zhang	AVIC Shenyang Aircraft Design and Research Institute
Bin Niu	AVIC Shenyang Aircraft Design and Research Institute
Yifan Qi	AVIC Shenyang Aircraft Design and Research Institute
Miao Wu	AVIC Shenyang Aircraft Design and Research Institute
08:00-10:00	A12.112

148 Aerial infrared target recognition framework based on hybrid feature fusion

Zhuoyun Chen	Beijing Univ. of Technology
Shaoyang Ma	Xi'an Jiaotong University
Xiangyin Zhang	Beijing Univ. of Technology
08:00-10:00	A12.113

280 Depth-reduced mobileNetV2 for 15-grade tobacco leaf classification

Zhaoyang Du	Linyi Univ.
Bo Wu	Linyi Univ.
Pengcheng Gao	Linyi Univ.
Jianhua Liu	Linyi Univ.
Feng Zhao	Linyi Univ.
Jianlong Qiu	Linyi Univ.
Jianqiang Sun	Linyi Univ.
08:00-10:00	A12.114
755 DTAF-NAS: dynamic target-aware neural architecture search for efficient infrared image object detection on edge NPU	
Qianqian Hu	National Univ. of Defense Technology
Yongbin Zheng	National Univ. of Defense Technology
Wanying Xu	National Univ. of Defense Technology
Shengjian Bai	National Univ. of Defense Technology
08:00-10:00	A12.115
1224 Robust-loss 2D gaussian splatting for fly-around asteroid reconstruction	
Bin Jing	Beihang Univ.
Pengyu Guo	Beihang Univ.
Yuandong Li	Beihang Univ.
Jun Xu	Shanghai Institute of Satellite Engineering
Yuan Li	Beihang Univ.
Dongyu Li	Beihang Univ.
08:00-10:00	A12.116
1464 Suspicious person recognition in underground spaces based on improved YOLOv8	
Qinyi Wang	Nanjing Univ. of Aeronautics and Astronautics
Rongyi bai	Nanjing Univ. of Aeronautics and Astronautics
Mou Chen	Nanjing Univ. of Aeronautics and Astronautics
Tongle Zhou	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.117
1612 基于动态融合的双通道相似性度量机动作识别	
HuJun Yang	Univ. of Electronic Science and Technology of China
MeiLi Zhang	AVIC Chengdu Aircraft Design and Research Institute
YouXiang Huang	AVIC Chengdu Aircraft Design and Research Institute
XiangGang Zhang	Univ. of Electronic Science and Technology of China
XiaoPing Chen	Univ. of Electronic Science and Technology of China
08:00-10:00	A12.118
105 Lightweight multi-scale detection of LNG tanker valves with LitePAN-YOLO	
Xujie Hu	Lianyungang JARI Automation Co., Ltd.
Lixin Teng	Harbin Engineering Univ.
Renjie Zhu	Lianyungang JARI Automation Co., Ltd.
Lanyong Zhang	Harbin Engineering Univ.
08:00-10:00	A12.119
384 A state of health estimation method for lithium-ion batteries	

<i>based on the E-xLSTM model</i>	
Liping Zhang	Xiamen Univ.
Hongkun Zhang	Xiamen Univ.
Jinpeng Zhang	China Airborne Missile Academy
Jian Zhang	Xiamen Univ.
Huimin Chen	Changji Univ.
Delin Luo	Xiamen Univ.
08:00-10:00	A12.120
682 FedGuard:a reputation-aware resilient federated learning strategy for UAV object detection in harsh environments	
Han Jiang	Beihang Univ.
Yishi Liu	Beihang Univ.
08:00-10:00	A12.121
913 Industrial knowledge graph construction under semantic and topological constraints	
Ming Jian	Beijing Institute of Technology
Yinchi Li	Beijing Institute of Technology
Meiling Wang	Beijing Institute of Technology
Xiaohan He	Beijing Institute of Technology
Yihui Wang	Beijing Institute of Technology
08:00-10:00	A12.122
1024 A multi-rate spatio-temporal physical causal graph attention network for condition monitoring of hydraulic system	
Qian Wang	Nanjing Univ. of Aeronautics and Astronautics
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics.
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics.
Lu Lu	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.123
1026 High-resolution detail-enhanced DEIMv2 for small object detection	
Shengwei Zhang	AVIC Luoyang Institute of Electro-optical Equipment
Yulong Fang	AVIC Luoyang Institute of Electro-optical Equipment
Jinjin Wan	AVIC Luoyang Institute of Electro-optical Equipment
08:00-10:00	A12.124
1497 RandLA-AGNet: accurate airborne LiDAR ground point extraction in complex terrains	
Yali Li	Nanjing Univ. of Aeronautics and Astronautics
Rongbing Li	Nanjing Univ. of Aeronautics and Astronautics
Yijing Liu	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.125
1520 FAMT: domain adaptation for 4D radar-based 3D object detection	
Qiuchi Zhao	Beihang Univ.
Xinyi Zhou	Beihang Univ.
Weiyi Xiong	Beihang Univ.
Guanhua Ding	Beihang Univ.
Bing Zhu	Beihang Univ.

08:00-10:00	A12.126
1590 <i>MTS-MH-DeepESN:an advanced framework for emotion recognition using EEG signals</i>	
Wenxuan Tu	Nanchang Univ.
Qian Li	Nanchang Univ.
Qi Xia	Nanchang Univ.
Xiaohan Li	Nanchang Univ.
Shihan Shan	Nanchang Univ.
08:00-10:00	A12.127
1620 <i>UAV ground target detection and tracking method based on YOLOv11 + DeepSort</i>	
Xinxi Wang	National Univ. of Defense Technology
Guo-hu Feng	National Univ. of Defense Technology
08:00-10:00	A12.128
1693 <i>Microorganism object detection based on improved YOLOv11</i>	
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 <i>A satellite in-orbit fault detection method based on the LSTM neural network model</i>	
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 <i>Research on clock synchronization mechanism for TTE and TSN converged network in airborne system</i>	
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 <i>A study on unified time scheduling and stream mapping mechanisms for heterogeneous networks</i>	
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 <i>Low-rank constrained online learning of koopman</i>	

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 <i>Observability-aware trajectory optimization for bearing-only localization with sensor bias</i>	
Zeyuan Li	Southeast Univ.
Linzhe Chen	Southeast Univ.
Kelin Lu	Southeast Univ.
08:00-10:00	A12.134
288 <i>An aircraft position uncertainty model-based flight conflict detection method</i>	
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 <i>Flight conflict resolution based on horizontal path extension strategy</i>	
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 <i>Aircraft trajectory prediction method based on physics-informed LSTM neural network</i>	
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 <i>Robust marine ZTD forecasting using a hybrid Bi-LSTM-GRU residual learning model</i>	
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 ℓ_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

1309 Global parameter sensitivity analysis of the optimal ascent trajectory for a combined-cycle vehicle

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

1611 Physics-constrained progressive heuristic A^* for bounded-suboptimal UAV path planning in 3D wind fields

Jinliang Chen	Southwest Univ. of Science and Technology
Yuying Guo	Southwest Univ. of Science and Technology
08:00-10:00	A12.141

1727 State-aware low-complexity decoding algorithm for BeiDou NB-LDPC codes

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

1728 Improved unambiguous acquisition algorithm for BeiDou B1C signals based on folded PMF-FFT

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

1349 Maneuver-aware dual-adaptive IMM-UKF for bearing-only tracking of maneuvering surface targets

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

1688 Research on target position estimation based on modified spherical coordinates

Kai Zhao	Beijing Institute of Astronautical systems Engineering
Yani Wang	Beijing Institute of Astronautical systems Engineering
Xiuli Yu	Beijing Institute of Astronautical systems Engineering
Guojiang Xia	Beijing Institute of Astronautical systems Engineering
08:00-10:00	A12.145

192 HysFilter-SLAM: hysteresis-guided dynamic feature filtering with class-agnostic state-space detection

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

259 Temporal target persistence for robust vision-language navigation under dynamic-disturbance-induced intermittent perception

Junrui Chen	Beihang Univ.
Likun Chen	Beihang Univ.
Yichen Li	Beihang Univ.
Shaoru Deng	Beihang Univ.
08:00-10:00	A12.147

390 DFC-VINS: deep feature enhanced collaborative visual-inertial SLAM with online bag-of-words loop closure

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

479 Super-resolution-guided RGB-IR multimodal small-object detection for remote-sensing imagery

Difu Zhu	Beihang Univ..
Qingdong Li	Beihang Univ.
08:00-10:00	A12.149

550 A cloud-edge architecture for VLM-driven UAV navigation and task decomposition

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

662 Effect of optical lens parameters on orientation in a micro-array skylight polarization compass

Tangman Cai	National Univ. of Defense Technology
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Chen Fan	National Univ. of Defense Technology		Research Institute
Lianwei Teng	National Univ. of Defense Technology	Kun Liang	AVIC Chengdu Aircraft Design and
Zhihe Chen	National Univ. of Defense Technology		Research Institute
Lilian Zhang	National Univ. of Defense Technology	Hao Wei	AVIC Chengdu Aircraft Design and
08:00-10:00	A12.151		Research Institute
690 <i>Automatic landing guidance with monocular vision pose measurement based on image matching</i>		Yiwen Hu	AVIC Chengdu Aircraft Design and
Yu Wang	Northwestern Polytechnical Univ.,		Research Institute
Dapeng Zhou	AVIC Shenyang Aircraft Design and Research Institute	08:00-10:00	A12.158
Peng Qian	AVIC Shenyang Aircraft Design and Research Institute	1294 <i>Unsupervised monocular image depth estimation algorithm based on improved monodepth2</i>	
Zheng Sun	AVIC Shenyang Aircraft Design and Research Institute	Jinjin Wan	Avic Luoyang Institute of Electro-optical Equipment
Zhao Jin	AVIC Shenyang Aircraft Design and Research Institute	Xuekangping Zhou	Xiamen Univ. Malaysia
08:00-10:00	A12.152	08:00-10:00	A12.159
819 <i>Dynamic error analysis and calibration for a vortex retarder-based polarization compass</i>		1345 <i>Lightweight small object detection method with shallow enhancement for UAV aerial imagery based on improved YOLOv10s</i>	
Xiaoyu Cao	National Univ. of Defense Technology	Haoran Li	Beijing Information Science and Technology Univ.
Yabo Huang	National Univ. of Defense Technology	Qianqian Li	Beijing Information Science and Technology Univ.
Xiaoyang Xia	National Univ. of Defense Technology	Junfang Fan	Beijing Information Science and Technology Univ.
Zhe Xie	National Univ. of Defense Technology	Xiaobin Xu	Beijing Information Science and Technology Univ.
Bing Lei	National Univ. of Defense Technology	08:00-10:00	A12.160
08:00-10:00	A12.153	1646 <i>A visual navigation method based on 3D maps</i>	
846 <i>Monocular vision-based detection method for UAV air-to-air target state estimation and tracking</i>		Nan Liu	AVIC Xi'an Flight Automatic Control Research Institute
Ying Chen	Harbin Institute of Technology	Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Guangping Zhou	Harbin Institute of Technology	Qi Zhou	AVIC Xi'an Flight Automatic Control Research Institute
Xu Wang	Harbin Institute of Technology	Xiaodong Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Rui Zhou	Harbin Institute of Technology	Qixuan Sun	AVIC Xi'an Flight Automatic Control Research Institute
Yanfang Liu	Harbin Institute of Technology	08:00-10:00	A12.161
08:00-10:00	A12.154	1687 <i>Relative navigation algorithm for space object based on angle-only measurement</i>	
907 <i>A spiking neural network (SNN) enhanced lift-splat-shoot framework for temporally robust bird's-eye-view perception</i>		Kai Zhao	Beijing Institute of Astronautical systems Engineering
Xinyu Xu	Beihang Univ.	Yu Han	Beijing Institute of Astronautical Systems Engineering
Enhao Zeng	Beihang Univ.	Xiuli Yu	Beijing Institute of Astronautical systems Engineering
Yixin Liu	Beihang Univ.	Guojiang Xia	Beijing Institute of Astronautical systems Engineering
Li Fu	Beihang Univ.	08:00-10:00	A12.162
Lingling Wang	Beihang Univ.	1703 <i>A semantic visual SLAM method in dynamic scenes based on object-level geometric voting</i>	
08:00-10:00	A12.155	Xiao Ma	Aerospace Information Research Institute,CAS
1055 <i>Topology-guided lifelong semantic mapping for indoor object navigation</i>		Li Wang	Beijing Institute of Technology
Yuhang Gao	Peking Univ.	Dong Li	Aerospace Information Research Institute,CAS
Yadong Mu	Peking Univ.	Ruixuan Gong	Beijing Institute of Technology
08:00-10:00	A12.156		
1102 <i>Degeneracy-robust 6-DOF Visual localization for edge-computing UAVs in GNSS-denied environments</i>			
Jing Yuan	Beihang Univ.		
Dawei Li	Beihang Univ.		
08:00-10:00	A12.157		
1113 <i>基于视觉融合的机场自主定位技术</i>			
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		

Cheng Wang	Aerospace Information Research Institute,CAS
08:00-10:00	A12.163
144 <i>Risk-aware discrete RL gating for robust INS/ESKF integrated navigation</i>	
Hang Hu	Shenyang Aerospace Univ.
Xin Liu	Shenyang Aerospace Univ.
Dongwei Zhang	Shenyang Aerospace Univ.
08:00-10:00	A12.164
197 <i>Supplementary explanation on using a vacuum quartz tube to prove the existence of an absolute stationary reference frame</i>	
Qinyan Zhou	
Jiajun Zhou	
08:00-10:00	A12.165
198 <i>A hypothetical experimental approach to prove the existence of an absolutely stationary reference frame by using the mach-zehnder interferometer</i>	
Qinyan Zhou	
Jiajun Zhou	
08:00-10:00	A12.166
1002 <i>Distributed adaptive event-triggered consensus control for unmanned aerial vehicles</i>	
Fuqiang Di	Xi'an Modern Control Technology Research Institute
Jiang Chang	Xi'an Modern Control Technology Research Institute
Gang Wang	Xi'an Modern Control Technology Research Institute
Qiang Luo	Xi'an Modern Control Technology Research Institute
Zeyu Xu	Xi'an Modern Control Technology Research Institute
08:00-10:00	A12.167
272 <i>Investigating multi-channel satellite inter-frequency differential code biases for GPS/GLONASS CDMA+FDMA signals</i>	
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 <i>Implementation of a multi-system GNSS receiver based on HackRF One</i>	
Jinyan Zhang	Space Engineering Univ.
Yanfeng Hu	Space Engineering Univ.
Jing Guo	Space Engineering Univ.
08:00-10:00	A12.169
358 <i>INS/BA/GNSS altitude data fusion method based on soft chi-square test</i>	
Bingzhi Su	AVIC Helicopter Design and Research Institute
Xi Cao	AVIC Helicopter Design and Research Institute
Chonghui Li	AVIC Helicopter Design and Research Institute

Yuguo Hu	AVIC Helicopter Design and Research Institute
Lin Xia	AVIC Helicopter Design and Research Institute
08:00-10:00	A12.170
565 <i>A robust RTK/INS integrated navigation algorithm driven by ambiguity-state for challenging environments</i>	
Jialiang Xue	Nanjing Univ. of Aeronautics and Astronautics
Rui Sun	Nanjing Univ. of Aeronautics and Astronautics
Lei Jiang	Nanjing Univ. of Aeronautics and Astronautics
08:00-10:00	A12.171
614 <i>A hyperparameter-optimized feature fusion method for seamless ins/gnss navigation during GNSS outages</i>	
Qikun Wang	Inner Mongolia Univ.
Xiaokai Wei	Inner Mongolia Univ.
08:00-10:00	A12.172
694 <i>A deeply coupled inertial-visual navigation system based on pixel-matching reprojection</i>	
Haofeng Jiang	AVIC Xi'an Flight Automatic Control Research Institute
Qi Zhou	AVIC Xi'an Flight Automatic Control Research Institute
Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Jinjiang Wang	AVIC Xi'an Flight Automatic Control Research Institute
Haoming Wang	AVIC Xi'an Flight Automatic Control Research Institute
08:00-10:00	A12.173
696 <i>Barometer-assisted factor graph fusion of visual-inertial odometry and scene matching for autonomous navigation in GNSS-denied environments</i>	
Jinjiang Wang	AVIC Xi'an Flight Automatic Control Research Institute
Qi Zhou	AVIC Xi'an Flight Automatic Control Research Institute
Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Haofeng Jiang	AVIC Xi'an Flight Automatic Control Research Institute
Haoming Wang	AVIC Xi'an Flight Automatic Control Research Institute
Nan Liu	AVIC Xi'an Flight Automatic Control Research Institute
08:00-10:00	A12.174
330 <i>Flight control hydraulic servo actuation system load performance modeling</i>	
Yang Qu	AVIC First Aircraft Design and Research Institute
Jiasheng Zhang	AVIC First Aircraft Design and Research Institute
Junhong Zhang	AVIC First Aircraft Design and 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 and Technology on Inertial Technology
Mengting Zhang	Aviation Key Laboratory of Science and Technology on Inertial Technology
Guoda Cheng	Aviation Key Laboratory of Science and Technology on Inertial Technology
Yimin Wang	Aviation Key Laboratory of Science and Technology on Inertial Technology

B1	1st Floor VIP Room
Robust GNC	1 层 贵宾厅

Chair: Yuhang Xu

10:15-10:23 B1.1

327 *Shape perception of continuum robots: methods, challenges, and prospects*

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

457 *Control strategy for high inertia variable overload servo systems*

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

1373 *Event-triggered geometric control for UAVs with prescribed-time performance*

Liping Wang	Suzhou City Univ.
Aiping Wu	Suzhou City Univ.

10:39-10:47 B1.4

128 *Topology-reconfigurable formation control in dynamic games via graphical actor-critic learning*

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

626 *Chance-constrained convex trajectory programming for rocket recovery based on most probable point*

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

1641 *Dynamical active disturbance rejection longitudinal control for hypersonic aircraft with unknown moment of inertia*

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

1627 *Dynamic event-triggered interval observer design for GNC battery thermal management systems*

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

1478 *Research on fault diagnosis method of rolling bearing based on SSCP-CNN*

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

263 *The global maximum principle for optimal control of partially observed stochastic systems driven by fractional Brownian motion*

Yueyang Zheng	Fudan University
Yaozhong Hu	University of Alberta

11:27-11:35 B1.10

299 基于 Gap 度量的分布式航空发动机联邦学习故障诊断方法

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

1513 *Invariant extended kalman filter-based fault diagnosis for spacecraft attitude control systems under dynamic conditions*

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

1683 *Distributed Lyapunov-based model predictive control for*

<i>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
1609 <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
Zhenhua Wang	Harbin Institute of Technology
Baiyang Zhu	Beijing Aerospace Technology Institute
11:59-12:07	B1.14
1141 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
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
12:07-12:15	B1.15
270 <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.
Di Shen	Air Force Engineering Univ.
Fuping Yu	Air Force Engineering Univ.
Xiaoyue Ren	Air Force Engineering Univ.
Qinyue Zhang	The No. 93406th Troops of PLA
Xiaofei Zhang	The No. 93173th Troops of PLA
B2	2nd Floor Yangshuo Room
Reinforcement GNC	2层 阳朔厅
Chair: Di Liu	
10:15-10:23	B2.1
1419 <i>Route planning based on improved SAC algorithm</i>	
Xingyi Pan	Air Force Engineering Univ.
Xingyu He	Air Force Engineering Univ.
Duo Qi	Air Force Engineering Univ.
Wei Chen	Air Force Engineering Univ.
10:23-10:31	B2.2
399 <i>Intelligent penetration guidance law design based on PN+PPO hybrid architecture</i>	
Junfan Wang	Beihang Univ.
Jianglong Yu	Beihang Univ.
Hou Yi	Beihang Univ.
Hong Jiang	Beihang Univ.
10:31-10:39	B2.3
1566 <i>Robust humanoid locomotion under action delay: factorizing delayed-actuation exposure and explicit delay awareness</i>	
Xulin Fu	Beijing Information Science and Technology Univ.
Daiwei Chen	Beijing Information Science and Technology Univ.
Donghao Zhang	Beijing Information Science and Technology Univ.

Youzhi Dong	Beijing Information Science and Technology Univ.
Wei He	Beijing Information Science and Technology Univ.
10:39-10:47	B2.4
1301 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
Yang Guo	Rocket Force Univ. of Engineering
Jin Wang	Rocket Force Univ. of Engineering
Jia Liu	Rocket Force Univ. of Engineering
Zhengquan Liu	Rocket Force Univ. of Engineering
Jian Zhou	Xi'an Research Institute of Hi-tech
10:47-10:55	B2.5
975 <i>LiteVLN: Resource-constrained training of large vision-language models for navigation</i>	
Fancheng Ding	Beihang Univ.
Yangzhu Wang	Beihang Univ.
Kun Wu	Beihang Univ.
Xiaoman Zhang	Beihang Univ.
Huaxin Qiu	Beihang Univ.
10:55-11:03	B2.6
763 基于机器学习的卫星承力筒结构优化设计方法	
Tingting Hu	National Univ. of Defense Technology
Yu Li	Academy of Military Sciences
Xianqi Chen	Academy of Military Sciences
Ye Chen	Shanghai Institute of Satellite Engineering
Weien Zhou	Academy of Military Sciences
Wen Yao	Academy of Military Sciences
11:03-11:11	B2.7
246 <i>Spiking transformer for energy-efficient battery state-of-health estimation</i>	
Yi Wan	Beihang Univ.
Shaoping Wang	Beihang Univ.
Yixuan Zhao	Beihang Univ.
Zhongze He	Beihang Univ.
Jian Shi	Beihang Univ.
Di Liu	Beihang Univ.
11:11-11:19	B2.8
561 针对强机动目标三维拦截的混合残差强化学习方法	
Tianxing Xu	Nanjing Univ. of Aeronautics and Astronautics
Dongyang Fang	Nanjing Univ. of Aeronautics and Astronautics
Ying Nan	Nanjing Univ. of Aeronautics and Astronautics
Moufu Zhang	Nanjing Univ. of Aeronautics and Astronautics
11:19-11:27	B2.9
1011 <i>TIDE: LLM-driven intent-dynamics decoupling and semantic refinement for learning-based multi-agent motion forecasting</i>	
Junle Wang	Beihang Univ.
Shuguang Zhang	Beihang Univ.
Yandong Wang	Beihang Univ.
Xuxin Lv	Beihang Univ.

Wenjun Wu	Beihang Univ.		Theory and System Key Laboratory
11:27-11:35	B2.10	Xue Wang	Civil Aviation Univ. of China
1073 <i>Air-to-air infrared UAV detection: A dedicated dataset for UAV-anti-UAV and deep learning evaluation</i>		Yuguo Zhang	Civil Aviation Univ. of China
Xuanyue Sun	Sun Yat-sen Univ.	10:23-10:31	B3.2
Xuhui Yang	Sun Yat-sen Univ.	1723 <i>Adaptive Control Method for Launch Vehicle Based on Incremental Online Reinforcement Learning</i>	
Chengwei Li	Sun Yat-sen Univ.	Zhaolei Wang	Beijing Aerospace Automatic Control Institute
Zhaoheng Wu	Sun Yat-sen Univ.	Ludi Wang	Beijing Aerospace Automatic Control Institute
Yong Wang	Sun Yat-sen Univ.	Huimin Wang	Beijing Aerospace Automatic Control Institute
Shunan Wu	Sun Yat-sen Univ.	Pengcheng Dong	Beijing Aerospace Automatic Control Institute
Zhigang Wu	Sun Yat-sen Univ.	10:31-10:39	B3.3
11:35-11:43	B2.11	509 <i>Optimizing intermediate states in LLM-A* search for complex reasoning</i>	
1677 <i>MobileHomo: A lightweight unsupervised homography wstimation network for mobile inference</i>		Chen Ji	Yangzhou Univ.
Xinqi Zhao	National Univ. of Defense Technology	Rui Cao	Yangzhou Univ.
Zihao Zhou	National Univ. of Defense Technology	10:39-10:47	B3.4
Xu Zhang	National Univ. of Defense Technology	542 <i>A landing marker detection and tracking method based on deep learning and template matching</i>	
Xiangke Wang	National Univ. of Defense Technology	Wen Yu	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
Xianguo Yu	National Univ. of Defense Technology	Hongjun Hu	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
11:43-11:51	B2.12	Zihao Qi	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
844 <i>Scale-adaptive adversarial attacks on YOLO-based UAV detection</i>		Yanwei Zhang	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
Jianjun Li	Guangxi Univ.	Peng Yan	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
Lu Ding	Guangxi Univ.	Yue Zheng	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
Bochen Li	Shanghai Jiao Tong Univ.	Xuchen Zhang	AVIC Beijing Keeven Aviation Instrument CO., Ltd.
Chenggang Wang	Shanghai Jiao Tong Univ.	10:47-10:55	B3.5
Lei Song	Shanghai Jiao Tong Univ.	1544 <i>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</i>	
Dan Huang	Shanghai Jiao Tong Univ.	Yunting Gui	Changchun Univ. of Science and Technology
Huaping Liu	Tsinghua Univ.	Xueming Xiao	Changchun Univ. of Science and Technology
11:51-11:59	B2.13	Yuegang Fu	Changchun Univ. of Science and Technology
1154 <i>PhyFormer: A physics-consistent residual transformer with semi-supervised learning for UAV GNSS spoofing detection</i>		Meibao Yao	Jilin Univ.
Yating Lai	National Univ. of Defense Technology	Xiangyu Huang	Beijing Institute of Control Engineering
Xujie Qin	National Univ. of Defense Technology	10:55-11:03	B3.6
Yirui Cong	National Univ. of Defense Technology	1204 <i>视觉滑行机场建图与定位技术</i>	
11:59-12:07	B2.14	Hongyuan Zhu	AVIC Chengdu Aircraft Design and Research Institute
1143 <i>Resilient reconfiguration for UAV Ad Hoc networks based on graph attention proximal policy optimization</i>		Bo Ma	AVIC Chengdu Aircraft Design and Research Institute
Lunshi Xu	Nanjing Univ. of Aeronautics and Astronautics	Yiwen Hu	AVIC Chengdu Aircraft Design and Research Institute
Ke Zhang	Nanjing Univ. of Aeronautics and Astronautics	Kun Liang	AVIC Chengdu Aircraft Design and Research Institute
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics		
12:07-12:15	B2.15		
1658 <i>LP-SLD-YOLO: A lightweight teacher-student framework for small object detection in UAV aerial imagery</i>			
Zhiteng Liao	Southeast Univ.		
He Wang	Southeast Univ.		
Wenwu Yu	Southeast Univ.		
B3	2nd Floor Lipu Room		
Vision GNC	2 层 荔浦厅		
Chair: Guochen Niu			
10:15-10:23	B3.1		
1453 <i>面向航站楼密集人群的移动机器人社会感知避障方法</i>			
Guochen Niu	China Civil Aviation Smart Airport		

	Research Institute	
Hao Wei	AVIC Chengdu Aircraft Design and	
	Research Institute	
Jing Ni	AVIC Chengdu Aircraft Design and	
	Research Institute	
11:03-11:11	B3.7	
1159 <i>Research on optimization method of transfer alignment under dynamic condition</i>		
Chenglong Duan	Beijing Keeven Aviation Instrument	
	Co.,Ltd.	
Yongsheng Hu	Beijing Keeven Aviation Instrument	
	Co.,Ltd.	
Peng Yan	Beijing Keeven Aviation Instrument	
	Co.,Ltd.	
Xiao Zhang	Beijing Keeven Aviation Instrument	
	Co.,Ltd.	
11:11-11:19	B3.8	
709 <i>Innovation-driven adaptive lie group extended kalman filter for world-frame SINS/GNSS integrated navigation</i>		
Fuan Duan	National Univ. of Defense Technology	
Maosong Wang	National Univ. of Defense Technology	
Yuxuan Wu	National Univ. of Defense Technology	
Xuanying Li	National Univ. of Defense Technology	
Xueyu Du	National Univ. of Defense Technology	
11:19-11:27	B3.9	
724 <i>Research on LADRC autopilot for aerial guided munitions with hinge moment feedforward compensation</i>		
Xuanbo Liu	Beijing Institute of Technology	
Qiuqiu Wen	Beijing Institute of Technology	
Weiwei Li	China Research and Development	
	Academy of Machinery Equipment	
Yantao Hu	Norinco Group Air Ammunition	
	Research Institute Co., Ltd.,	
Sheng He	Norinco Group Air Ammunition	
	Research Institute Co., Ltd.,	
11:27-11:35	B3.10	
1233 飞机机动平面控制方法及应用研究		
Jiabo Feng	Beihang Univ.	
Baicheng Lu	Beihang Univ.	
Weiqi Li	Beihang Univ.	
11:35-11:43	B3.11	
1007 <i>Robust position tracking of the towed cable-drogue system via tangent-type adaptive prescribed performance control</i>		
Jianheng He	Beihang Univ.	
Honglun Wang	Beihang Univ.	
Junfan Zhu	Beihang Univ.	
Jinbai Li	Beihang Univ.	
Zikang Su	Nanjing Univ. of Aeronautics and	
	Astronautics	
11:43-11:51	B3.12	
812 <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.	
Song Wang	Beijing Keeven Aviation Instrument	
	Co.Ltd.	

Guanru Zhao	Beijing Keeven Aviation Instrument	
	Co.Ltd.	
Lele Zhang	Beijing Keeven Aviation Instrument	
	Co.Ltd.	
Wenchong Sun	Beijing Keeven Aviation Instrument	
	Co.Ltd.	
11:51-11:59	B3.13	
726 <i>Static position accuracy analysis of civil aircraft primary flight control system</i>		
Hairui Jiang	COMAC Shanghai Aircraft Design	
	and Research Institute	
Mengyao Wu	COMAC Shanghai Aircraft Design	
	and Research Institute	
Dongguang Xu	COMAC Shanghai Aircraft Design	
	and Research Institute	
Hualong Dong	COMAC Shanghai Aircraft Design	
	and Research Institute	
Qi Chen	COMAC Shanghai Aircraft Design	
	and Research Institute	
11:59-12:07	B3.14	
1220 <i>Lateral deviation correction control for automatic takeoff roll of civil aircraft based on low visibility</i>		
Nuo Deng	COMAC Shanghai Aircraft Design	
	and Research Institute	
Weijie Lyu	COMAC Shanghai Aircraft Design	
	and Research Institute	
Chang Liu	COMAC Shanghai Aircraft Design	
	and Research Institute	
12:07-12:15	B3.15	
1632 <i>Design of excess deviation alert for localizer and glide slope of civil aircraft</i>		
Na He	Shanghai Aircraft Design and	
	Research Institute	
Ziyan Shao	Shanghai Aircraft Design and	
	Research Institute	
B4 2nd Floor Nanning Room1		
Safety GNC 2 层 南宁厅 1		
Chair: Yanbin Liu		
10:15-10:23	B4.1	
856 垂直起降变体飞行器控制关联的过渡走廊设计		
Zengzhen Zhao	Nanjing Univ. of Aeronautics and	
	Astronautics	
Zilong Wang	Nanjing Univ. of Aeronautics and	
	Astronautics	
Yanbin Liu	Nanjing Univ. of Aeronautics and	
	Astronautics	
Boyi Chen	Nanjing Univ. of Aeronautics and	
	Astronautics	
Jun Jia	Nanjing Univ. of Aeronautics and	
	Astronautics	
10:23-10:31	B4.2	
366 <i>Trajectory tracking control for autonomous vehicles based on barrier lyapunov function and extended state observer</i>		
Juqi Hu	Anhui Univ.	
Yiping Wu	Anhui Univ.	
Changyin Sun	Anhui Univ.	

Youmin Zhang	Concordia Univ.
10:31-10:39	B4.3
1031 Gravity compensation-based nonlinear robust control of laser turntable for anti-UAV	
Benfeng Luan	Yanshan Univ.
Junbo Wang	Yanshan Univ.
Xinghua Chen	Beihang Univ.
Yao Li	AVIC. Qing'An Group, Co., Ltd.
Jing Yao	Yanshan Univ.
10:39-10:47	B4.4
1360 Fault-tolerant control for electro-hydraulic brake system based on fixed-time observer and sliding mode control	
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
1402 Safe trajectory tracking and obstacle avoidance for UAVs based on UKF and CBF-MPC	
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
295 Leader-follower consensus of discrete-time multi-agent systems with dual Markovian switching via mode- and topology-dependent control	
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
825 Observer-based distributed prescribed-time control for STL task execution in communication-constrained multi-agent systems	
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
1659 MPC-RORCA: a decentralized trajectory planning method for multi-robot systems	
Xiaotong Li	Beijing Institute of Technology
Pengfei Liu	Beijing Institute of Technology
11:19-11:27	B4.9
1166 Coordinated motion planning and control for small fixed-wing UAVs in dense environments	
Haozhe Sun	National Univ. of Defense Technology
Tianqing Liu	The Chinese Armed Police Force

Zhaowei Ma	Command College
Yifeng Niu	National Univ. of Defense Technology
11:27-11:35	B4.10
1531 Fixed-time bipartite consensus control of signed digraphs with connectivity preservation	
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
1298 Predefined-time QUAV formation control under input saturation and input quantization	
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
855 Prescribed-time consensus for multi-UAV based on prescribed-performance	
Ruirui Zhang	Northwestern Polytechnical Univ.
Ban Wang	Northwestern Polytechnical Univ.
11:51-11:59	B4.13
1338 Reinforcement learning-driven formation control for input-constrained multi-agent networks	
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
124 Three-dimensional predefined-time cooperative guidance with field-of-view constraints	
Jiedong He	Nanjing Univ. of Aeronautics and Astronautics
Meng Yu	Nanjing Univ. of Aeronautics and Astronautics
12:07-12:15	B4.15
681 基于扩维正系统的折展机翼变负载预设性能控制	
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
B5 2nd Floor Nanning Room2 Flight GNC 2层 南宁厅 2	
Chair: Zikang Su	
10:15-10:23	B5.1

1562 <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		
373 <i>Fixed-time distributed attitude tracking control of multiple QAVs without angular velocity sensors</i>			
Meng Zhang	Southeast Univ.		
Linan Wang	Beijing Institute of Technology		
Huixiong Wang	Southeast Univ.		
Huian Yan	LiaoNing Technical Univ.		
10:31-10:39	B5.3		
493 <i>Collision-free trajectory tracking control of quadrotors</i>			
Zhuo Liu	Southeast Univ.		
Linan Wang	Beijing Institute of Technology		
Huian Yan	LiaoNing Technical Univ.,		
Jing Nie	Beijing Institute of Technology		
10:39-10:47	B5.4		
273 <i>Nonlinear control of tiltrotor aircraft based on INDI and RBF neural network</i>			
Xinyu Li	Tianjin Univ.		
Bin Xian	Tianjin Univ.		
10:47-10:55	B5.5		
792 <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>			
Xuqiao Wang	Civil Aviation Univ. of China		
Menghao Duan	Civil Aviation Univ. of China		
Qijun Luo	Civil Aviation Univ. of China		
10:55-11:03	B5.6		
787 <i>Research on forward speed tracking of solar-powered UAV based on terminal sliding mode control</i>			
Heng Li	Naval Aviation Univ.		
Lingling Wang	Naval Aviation Univ.		
Yuliang Cheng	Naval Aviation Univ.		
Junwei Lei	Naval Aviation Univ.		
11:03-11:11	B5.7		
1390 <i>Bridging semantics and dynamics: a decoupled LLM-RL framework for UAV target search</i>			
Jiankun Guo	National Univ. of Defense Technology		
Zhaowei Ma	National Univ. of Defense Technology		
Weiqi Sun	National Univ. of Defense Technology		
Yifeng Niu	National Univ. of Defense Technology		
11:11-11:19	B5.8		
1397 <i>Ellipsoidal NMPC for quadrotor obstacle avoidance in cluttered dynamic environments</i>			
Zhenzhao Wang	National Univ. of Defense Technology		
Xudong Liu	National Univ. of Defense Technology		
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		
1501 <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		
401 <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.		
Wenkun Gu	Air Force Engineering Univ.		
Qiang Miao	Air Force Engineering Univ.		
Chunlei Pang	Air Force Engineering Univ.		
11:35-11:43	B5.11		
397 <i>Anti-disturbance air-dropped control of the flying wing UAV from a mother carrier</i>			
Zijian Zhou	Nanjing Univ. of Aeronautics and Astronautics		
Xinru Wang	Nanjing Univ. of Aeronautics and Astronautics		
Jinjin Wan	AVIC Luoyang Institute of Electro-optical Equipment		
Chaoqiang Zhao	AVIC Luoyang Institute of Electro-optical Equipment		
ChangHui Jiang	Nanjing Univ. of Aeronautics and Astronautics		
Zikang Su	Nanjing Univ. of Aeronautics and Astronautics		
11:43-11:51	B5.12		
675 <i>Attitude control of flying boom under composite aerodynamic disturbances</i>			
Zhihua Xiong	Beihang Univ.		
Honglun Wang	Beihang Univ.		
Junfan Zhu	Beihang Univ.		
Jinbai Li	Beihang Univ.		
Zikang Su	Nanjing Univ. of Aeronautics and Astronautics		
11:51-11:59	B5.13		
834 <i>Coordinated landing control for a VTOL UAV with lifting surface under terminal attitude constraints</i>			
Yifang Fu	Northwestern Polytechnical Univ.		
Lin Li	Navigation and Control Technology Research Institute of Norinco Group		
Zhiqi Qi	Northwest Regional Air Traffic Management Bureau of Civil Aviation of China		
Bufan Chang	Northwestern Polytechnical Univ.		
Ban Wang	Northwestern Polytechnical Univ.		
11:59-12:07	B5.14		
837 <i>ESO-based prescribed-time control of canard rotor/wing UAV with asymmetrical performance constraints under external disturbances</i>			
Huimin Zhao	Northwestern Polytechnical Univ.		
Ban Wang	Northwestern Polytechnical Univ.		
Ni Li	Northwestern Polytechnical Univ.		
12:07-12:15	B5.15		
896 <i>Autonomous flight control of the bird-inspired unmanned</i>			

aircraft without a vertical tail

Tingting Wang	Beijing Keeven Aviation Instrument Co. Ltd.
Xiuyu He	Univ. of Science and Technology Beijing
Wei He	Univ. of Science and Technology Beijing

B6 2nd Floor Nanning Room3 **Optimization GNC 2层 南宁厅 3**

Chair: Yu Liang	
10:15-10:23	B6.1
1249 <i>GPSS: 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
852 <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
1634 <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
927 <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
892 金属微半球谐振陀螺全角模式解耦控制方法	
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
900 <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
1691 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	
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
1018 <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
428 <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
1436 微纳卫星扩频通信系统设计与验证	
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
972 <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
985 <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
990 <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
992 <i>Study of pressure measurement errors induced by temperature gradients in sensor tubing</i>	
Zhongyong Zou	AVIC Chengdu Aircraft Design and Research Institute
Changan Zhang	AVIC Chengdu Aircraft Design and Research Institute
Shuangshuang Yang	AVIC Chengdu Aircraft Design and Research Institute
12:07-12:15	B6.15
1496 <i>Health-state evaluation and adaptive fusion method for dual-redundant IMUs</i>	
Dongyuan Liu	Nanjing Univ. of Aeronautics and Astronautics
Zijun He	Nanjing Univ. of Aeronautics and Astronautics
Rongbing Li	Nanjing Univ. of Aeronautics and Astronautics
Wenxuan Wang	Nanjing Univ. of Aeronautics and Astronautics
B7	2nd Floor Longsheng Room
Reliable GNC	2 层 龙胜厅
Chair: Xiaolong Chen	
10:15-10:23	B7.1
778 <i>Structured task conditioning for visuomotor control in robust dual-arm manipulation</i>	
Long He	Tsinghua Univ.
Mengjin Qu	Tsinghua Univ.
Qing Li	Tsinghua Univ.
10:23-10:31	B7.2
794 <i>Command reshaping envelope protection for V-tail UAVs based on adaptive virtual barriers</i>	
Haofeng Yan	Nanjing Univ. of Aeronautics and Astronautics
Panpan Xiong	Nanjing Univ. of Aeronautics and Astronautics
Shouzhao Sheng	Nanjing Univ. of Aeronautics and Astronautics
10:31-10:39	B7.3
987 <i>Physical safety boundary evaluation and feedforward-feedback composite control for 3D trajectory tracking under wind disturbances</i>	
Ziang Wang	Tsinghua Univ.
Pengliang Che	Tsinghua Univ.
Chaoran Hu	Tsinghua Univ.
Mengjin Qu	Tsinghua Univ.
Qing Li	Tsinghua Univ.
10:39-10:47	B7.4
1044 <i>End-to-end text-to-voxel generation for autonomous UAV navigation</i>	
Xiaolong Chen	AVIC Xi'an Flight Automatic Control Research Institute
Wei Lu	National Key Laboratory of Integrated

Control Technology of Aircraft	
Qing Li	Tsinghua Univ.
10:47-10:55	B7.5
1059 <i>Optimal selection method for feedforward control commands of tiltrotor aircraft based on transition trajectory</i>	
Wenhao Wang	National Key Laboratory of Science and Technology on Integrated Technology Control
Ning Zhang	National Key Laboratory of Science and Technology on Integrated Technology Control
Lulu Xue	National Key Laboratory of Science and Technology on Integrated Technology Control
Qiang Chen	National Key Laboratory of Science and Technology on Integrated Technology Control
10:55-11:03	B7.6
1089 <i>Dual-path automatic planning for UAV swarm combat scheme simulation: A LLM-based document-to-simulation framework</i>	
Wei Lu	AVIC Xi'an Flight Automatic Control Research Institute
Jinzhao Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Liang Yu	AVIC Xi'an Flight Automatic Control Research Institute
11:03-11:11	B7.7
1179 <i>Airflow angle estimation for aircraft air data systems using EKF and complementary filtering</i>	
Hengyu Liu	AVIC Xi'an Flight Automatic Control Research Institute
Yuelong Ma	AVIC Xi'an Flight Automatic Control Research Institute
Xiaolong Chen	AVIC Xi'an Flight Automatic Control Research Institute
Ning Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Lulu Xue	AVIC Xi'an Flight Automatic Control Research Institute
11:11-11:19	B7.8
1293 <i>Natural language-driven four-dimensional spatiotemporal path planning method for unmanned aerial vehicles</i>	
Xinzhe Lei	AVIC Xi'an Flight Automatic Control Research Institute
Liang Yu	AVIC Xi'an Flight Automatic Control Research Institute
Xiaolong Chen	AVIC Xi'an Flight Automatic Control Research Institute
11:19-11:27	B7.9
429 <i>Geometric-constraint-assisted intelligent trajectory replanning for conflict avoidance</i>	
Pengpeng Guo	Tsinghua Univ.
Leibin Yang	Aviation Univ. of Air Force
Shihong Li	Tsinghua Univ.
Mengjin Qu	Tsinghua Univ.
Qing Li	Tsinghua Univ.

11:27-11:35	B7.10
284 <i>Research on proactive interactive agents for multi-UAV manipulation based on natural language</i>	
Jia Li	AVIC Xi'an Flight Automatic Control Research Institute
Yan Liu	AVIC Xi'an Flight Automatic Control Research Institute
Xiaolong Chen	AVIC Xi'an Flight Automatic Control Research Institute
11:35-11:43	B7.11
623 <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
691 <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
793 <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
1424 <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.
B8 2nd Floor Guilin Room 1	
Aerospace GNC 2 层 桂林厅 1	
Chair: Hongshi Lu	
10:15-10:23	B8.1
339 <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
186 <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
309 <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
598 <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
600 <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
609 <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
611 <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
859 <i>Trajectory optimization for constructing artificial gravity with spinning tether system</i>	
Deming Du	Northwestern Polytechnical Univ.
Hongshi Lu	Northwestern Polytechnical Univ.

Yu Zhang	Research Institute Research AVIC Chengdu Aircraft Design and Research Institute	Ming Yan	Dalian Univ. of Technology
11:03-11:11	B9.7	Shaoze Huo	Dalian Univ. of Technology
747 <i>Stability augmentation control via thrust vector: An adaptive control method based on hinge moment estimation for thrust observation</i>		Zhechen Liu	Dalian Univ. of Technology
Heqi Li	AVIC Shenyang Aircraft Design and Research Institute	Yunlong Zhao	Dalian Univ. of Technology
Shipeng Wang	AVIC Shenyang Aircraft Design and Research Institute	11:43-11:51	B9.12
Yeguang Wang	AVIC Shenyang Aircraft Design and Research Institute	576 <i>Sliding-window factor graphs for UAV localization with delayed radar observations</i>	
Ning Wang	AVIC Shenyang Aircraft Design and Research Institute	Liang Yu	National Univ. of Defense Technology
Kai Liu	Dalian Univ. of Technology	Mengyun Wang	National Univ. of Defense Technology
Qingfeng Zhao	Dalian Univ. of Technology	Yifeng Niu	National Univ. of Defense Technology
11:11-11:19	B9.8	11:51-11:59	B9.13
785 基于 MASD 和 AI 的飞控智能软件开发方法研究		1444 <i>Research on automatic landing processes and simulations for civil aircraft</i>	
Qi Zhang	AVIC Shenyang Aircraft Design and Research Institute	Miao Wu	AVIC Shenyang Aircraft Design and Research Institute
Haoyu Liu	AVIC Shenyang Aircraft Design and Research Institute	Yanming Fan	AVIC Shenyang Aircraft Design and Research Institute
Yue Wang	AVIC Shenyang Aircraft Design and Research Institute	Yanguo Hu	AVIC Shenyang Aircraft Design and Research Institute
Hongrun Yi	AVIC Shenyang Aircraft Design and Research Institute	Jingling Gui	AVIC Shenyang Aircraft Design and Research Institute
11:19-11:27	B9.9	Derui Wang	AVIC Shenyang Aircraft Design and Research Institute
994 <i>Active airframe-propulsion integrated control for air-breathing hypersonic vehicles</i>		11:59-12:07	B9.14
Jiaxin Li	Sun Yat-sen Univ.	1578 <i>Design and analysis of transition strategies for composite wing unmanned aerial vehicles</i>	
Boyu Zeng	Dalian Univ. of Technology	Haoyong Jiang	Dalian Univ. of Technology
Shuaibin An	Dalian Univ. of Technology	Zhongrun Wang	Dalian Univ. of Technology
Guan Wang	Dalian Univ. of Technology	Yunlong Zhao	Dalian Univ. of Technology
Kai Liu	Dalian Univ. of Technology	Huadong Li	Dalian Univ. of Technology
Zhigang Wu	Sun Yat-sen Univ.	Qingfeng Zhao	Dalian Univ. of Technology
11:27-11:35	B9.10	Zongyu Zhang	Dalian Maritime Univ.
1067 <i>Attitude reconstruction control via airframe-propulsion coupling for air-breathing hypersonic vehicles under aerodynamic control effectiveness degradation</i>		Jun Liu	Dalian Univ. of Technology
Boyu Zeng	Dalian Univ. of Technology	Kai Liu	Dalian Univ. of Technology
Dapeng Yang	AVIC Shenyang Aircraft Design and Research Institute	12:07-12:15	B9.15
Jiaxin Li	Sun Yat-sen Univ.	1738 <i>AI-Assisted requirements-driven modeling and testing closed-loop framework for flight control system</i>	
Shuaibin An	Dalian Univ. of Technology	Chenguang Li	Beijing Global Crown Technology Co., Ltd.
Guan Wang	Dalian Univ. of Technology	Qi Zhang	AVIC Shenyang Aircraft Design and Research Institute
Kai Liu	Dalian Univ. of Technology	Yongyi Liu	AVIC Shenyang Aircraft Design and Research Institute
11:35-11:43	B9.11	Wentie Lai	Beijing Global Crown Technology Co., Ltd.
1068 <i>Neural network adaptive vibration suppression architecture for distributed actuators</i>		Jilong Lin	Beijing Global Crown Technology Co., Ltd.
Zijun Gu	Dalian Univ. of Technology	Yan Luo	Beijing Global Crown Technology Co., Ltd.
Jianan Qin	AVIC Shenyang Aircraft Design and Research Institute	B10 2nd Floor VIP Room 2	
Danwei Li	AVIC Shenyang Aircraft Design and Research Institute	Hybrid GNC 2 层 贵宾厅 2	
Kai Liu	Dalian Univ. of Technology	Chair: Yongxi Lyu	
Qingfeng Zhao	Dalian Univ. of Technology	10:15-10:23	B10.1
		618 <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

625 *A loop closure localization algorithm based on image features*

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.
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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*

Xinyi Zhang	Northwestern Polytechnical Univ.
Yongxi Lyu	Northwestern Polytechnical Univ.
Jingping Shi	Northwestern Polytechnical Univ.
Wangyi Zhou	AVIC Flight Automatic Control Research Institute
11:27-11:35	B10.10

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
11:35-11:43	B10.11

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.
11:43-11:51	B10.12

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.
11:51-11:59	B10.13

1515 *Transition optimized control of a quad-tilt ducted UAV*

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.
11:59-12:07	B10.14

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.
12:07-12:15	B10.15
1542 <i>Design and flight test verification of auto GCAS for UAVs</i>	
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
Shaomin He	AVIC Xi'an Flight Automatic Control Research Institute
Yige Luo	AVIC Xi'an Flight Automatic Control Research Institute
Jianjun Huang	AVIC Xi'an Flight Automatic Control Research Institute
B12	Poster Area
Poster Session	海报区
Chair: Hang Liu	
10:15-12:15	B12.1
912 基于 CNN-MLP 的 Hessian-PSO 室内多源融合三维定位算法	
Fang Liu	Shenyang Ligong Univ.
Shuai Liu	Shenyang Ligong Univ.
Yanan Liu	Shenyang Ligong Univ.
10:15-12:15	B12.2
1017 <i>Adaptive-rate factor graph integrated navigation modeling and gyroscope bias enhancement method for airborne measured data</i>	
Pengfei Yang	Beihang Univ.
Li Fu	Beihang Univ.
Jiyao Zhu	Beihang Univ.
Jiajun Li	Beihang Univ.
10:15-12:15	B12.3
1117 基于光流法的惯性导航静基座对准晃动检测方法	
Wanrui Li	AVIC Xi'an Flight Automatic Control Research Institute
Jinglian Cao	AVIC Xi'an Flight Automatic Control Research Institute
Shaolong Song	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.4
1499 <i>Fusion and integrity method for autonomous landing of civil aircraft</i>	
Qixuan Sun	AVIC Xi'an Flight Automatic Control Research Institute
Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Chengkang Yao	AVIC Xi'an Flight Automatic Control Research Institute
Xiaodong Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Nan Liu	AVIC Xi'an Flight Automatic Control Research Institute
Zhiyu Yin	AVIC Xi'an Flight Automatic Control Research Institute
Wenbo Suo	AVIC Xi'an Flight Automatic Control

	Research Institute
10:15-12:15	B12.5
1551 <i>A loosely coupled integrated navigation method for aircraft under GNSS spoofing using DME/VOR, barometric altimeter, and INS</i>	
Jinxiang Wang	Beihang Univ.
Xiaopeng Hou	Beihang Univ.
Jichao Dong	Aviation Data Communication Corporation
Xiuqing Li	Tianjin 764 Communication and Navigation Technology Co., Ltd.
Zhipeng Wang	Beihang Univ.
Kun Fang	Beihang Univ.
10:15-12:15	B12.6
1592 面向月表复杂工况的轻量化视惯多速率滤波算法	
Yuhang Liu	Innovation Academy for Microsatellites, CAS
Xiwang Xia	Innovation Academy for Microsatellites, CAS
10:15-12:15	B12.7
1594 <i>Multi-vehicle INS/UWB factor graph optimization cooperative localization method based on residual detection and damping iteration</i>	
Zhan Gao	National Univ. of Defense Technology
Guo Wei	National Univ. of Defense Technology
Chengzhi Hou	National Univ. of Defense Technology
Jing Wang	National Univ. of Defense Technology
Yaodong Liao	National Univ. of Defense Technology
Chilu Zhang	National Univ. of Defense Technology
Chunfeng Gao	National Univ. of Defense Technology
10:15-12:15	B12.8
334 <i>A hybrid Kalman filter and LSTM model with residual learning for ship trajectory prediction</i>	
Cunyi Hu	Xi'an Modern Control Technology Research Institute
Rui Pan	Xi'an Modern Control Technology Research Institute
Xindi Wang	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
10:15-12:15	B12.9
703 天基红外卫星调度与测量时延的目标跟踪	
Yao Hou	Beihang Univ.
Chenzhe Liu	Beihang Univ.
Yandong Wang	Beihang Univ.
10:15-12:15	B12.10
1215 <i>Adaptive GNSS interference source localization method based on convolutional neural networks</i>	
Jiuyang Hou	Beijing Institute of Technology
Xu Chen	Beijing Institute of Technology
Tao Feng	Research Institute of Highway Ministry of Transport
Huaijian Li	Beijing Institute of Technology
10:15-12:15	B12.11
1222 <i>Design of airborne star sensor for all-time detection</i>	
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
1333 <i>NMPC-based trajectory tracking control of non-center point on differential-drive wheeled robot</i>	
Zhenhang Ming	Linyi Univ.
Ancai Zhang	Linyi Univ.
Quan Yuan	Linyi Univ.
Junyao Yu	Linyi Univ.
Wenbo Zheng	Linyi Univ.
10:15-12:15	B12.13
1512 <i>"GoldenFuture"—space station space debris monitoring and identification system</i>	
Shizheng Zhou	Beihang Univ.
Ziheng Xu	Beihang Univ.
Yunhan Wang	Beihang Univ.
Jiacheng Peng	Beihang Univ.
Wenxin Huang	Beihang Univ.
Xianduo Wang	Beihang Univ.
Runze Zhang	Beihang Univ.
Shumin Jian	Beihang Univ.
Chengcai Wang	Beihang Univ.
10:15-12:15	B12.14
238 <i>Monte carlo simulation of an automatic landing system and its quantitative analysis</i>	
Haonan Xu	COMAC Shanghai Aircraft Design and Research Institute
Hongxin Wang	COMAC Shanghai Aircraft Design and Research Institute
Qinyu Wei	COMAC Shanghai Aircraft Design and Research Institute
Chang Liu	COMAC Shanghai Aircraft Design and Research Institute
Ziqin Xu	COMAC Shanghai Aircraft Design and Research Institute
10:15-12:15	B12.15
239 <i>Geometric decoupling and attitude control for dual tilt-rotor tri-copter</i>	
Shaoqiu Deng	Jiangxi Guoke Defence Group Co., Ltd.
Ruizhi Jiang	Jiangxi Guoke Defence Group Co., Ltd.
Zhiyan Zhang	Jiangxi Guoke Group Co., Ltd.
Zichun Guo	Beihang Univ.
Bahetinuier Hasiyati	Beihang Univ.
Yingjian Xu	Beijing Aero King Technology Co., Ltd.
Gaoyu Liang	Bauman Moscow State Technical Univ.
Zizhuo Cai	Beihang Univ.
10:15-12:15	B12.16
245 <i>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</i>	
Bowen Su	Univ. of Electronic Science and Technology of China
Xiaoping Chen	Univ. of Electronic Science and Technology of China
Yuankai Li	Univ. of Electronic Science and Technology of China

10:15-12:15	B12.17
353 <i>基于奇异摄动的非仿射系统控制分配</i>	
Junping Chen	COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd.
Jiang Wu	COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd.
Shu Yang	Northwestern Polytechnical Univ.
Jiabo Zheng	Northwestern Polytechnical Univ.
10:15-12:15	B12.18
371 <i>电动复合翼无人机垂直降落抗风控制方法</i>	
Mingming Tian	AVIC Xi'an Flight Automatic Control Research Institute
Zhao Yang	AVIC Xi'an Flight Automatic Control Research Institute
Dongliang Song	AVIC Xi'an Flight Automatic Control Research Institute
Yueping Wang	AVIC Xi'an Flight Automatic Control Research Institute
Guoqiang Yang	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.19
456 <i>基于衰减记忆卡尔曼滤波的甲板运动预估策略</i>	
Xudong Huang	AVIC Xi'an Flight Automatic Control Research Institute
Zixia Wen	AVIC Xi'an Flight Automatic Control Research Institute
Qianwei Yang	AVIC Xi'an Flight Automatic Control Research Institute
Mingming Tian	AVIC Xi'an Flight Automatic Control Research Institute
Guanlin Li	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.20
529 <i>Actuator dynamic rate-optimized control allocation for tilt-rotor tri-copters</i>	
Zizhuo Cai	Beihang Univ.
Pei Chi	Beihang Univ.
Yince Gao	Beihang Univ.
Zichun Guo	Beihang Univ.
Qidi Wang	Beihang Univ.
Yiyu Wang	Beihang Univ.
Zhiheng Dai	Beihang Univ.
Yingjian Xu	Beihang Univ.
Xinglu Xia	Beihang Univ.
Yingxun Wang	Beihang Univ.
10:15-12:15	B12.21
617 <i>弹性飞行器静态输出反馈降阶控制</i>	
Ting Yang	Beijing Aerospace Technology Institute
Shu Yang	Northwestern Polytechnical Univ.
Jian Guo	Beijing Aerospace Technology Institute
10:15-12:15	B12.22
677 <i>Unified control allocation for a novel bi-copter with center of gravity uncertainty</i>	
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
735 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
813 Research on intelligent fault-tolerant control technology for control surface loss fault of carrier-based aircraft	
Yang Zhang	Naval Academy
Xi Wang	Naval Academy
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
1010 Sliding mode with time delay control for aero-engine	
Jing Qin	Northwestern Polytechnical Univ.
Yingzhi Huang	Northwestern Polytechnical Univ.
10:15-12:15	B12.26
1470 Research on attitude control of automatic flight control system based on linear active disturbance rejection control	
Furui Yu	AVIC Shenyang Aircraft Design and Research Institute
Yanguo Hu	AVIC Shenyang Aircraft Design and Research Institute
Xiaoye Wang	AVIC Shenyang Aircraft Design and Research Institute
Jialiang Zheng	AVIC Shenyang Aircraft Design and Research Institute
Ruiyang Ban	AVIC Shenyang Aircraft Design and Research Institute
10:15-12:15	B12.27
1642 面向飞翼布局质心过载减缓的舵面分配与增稳控制研究	
Peng Tang	Beihang Univ.
Enci Bian	Beihang Univ.
Yanshan Shen	Beihang Univ.
10:15-12:15	B12.28
1644 A robust integrated guidance and control scheme based on linear time-varying model predictive control combined with extended state observer	
Yangyang Deng	National Univ. of Defense Technology
Wanying Xu	National Univ. of Defense Technology
Yongbin Zheng	National Univ. of Defense Technology
Peisen Zhu	National Univ. of Defense Technology
10:15-12:15	B12.29
1715 Modeling and landing control of a civil aircraft-landing gear integrated system	
Junping Chen	COMAC Shanghai Aircraft Flight Test Engineering Co., Ltd.
Jiang Wu	COMAC Shanghai Aircraft Test Flight Engineering Co., Ltd.
Shu Yang	Northwestern Polytechnical Univ.

Yunhe Qiu	Northwestern Polytechnical Univ.
10:15-12:15	B12.30
1719 Flare trajectory planning and precision control for category III autoland	
Ranran Wang	AVIC Xi'an Flight Automatic Control Research Institute
Yueping Wang	AVIC Xi'an Flight Automatic Control Research Institute
Tianpeng Huang	AVIC Xi'an Flight Automatic Control Research Institute
Tianlun Huan	AVIC Xi'an Flight Automatic Control Research Institute
Shiyu Zuo	AVIC Xi'an Flight Automatic Control Research Institute
Shaoping Chang	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.31
1717 A helicopter velocity protection algorithm based on cascaded potential functions and explicit model following	
Renqing Zhai	AVIC Xi'an Flight Automatic Control Research Institute
Mingzhuang Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Linyi Zhi	Aircraft Strength Research Institute of China
10:15-12:15	B12.32
495 QAR data-driven GNSS spoofing detection using random forest	
Dikai Yang	China Academy of Civil Aviation Science and Technology
Jing Guo	China Academy of Civil Aviation Science and Technology
Xuhui Wang	China Academy of Civil Aviation Science and Technology
Yubin Xu	China Academy of Civil Aviation Science and Technology
Xiangdong Xun	China Academy of Civil Aviation Science and Technology
Fanrong Sun	Nanjing Univ. of Aeronautics and Astronautics
10:15-12:15	B12.33
569 Enhanced flight control for a large receiver aircraft	
Siyuan Cai	AVIC Xi'an Flight Automatic Control Research Institute
Yang Meng	AVIC Xi'an Flight Automatic Control Research Institute
Yuyan Cao	AVIC Xi'an Flight Automatic Control Research Institute
Erzhuo Niu	AVIC Xi'an Flight Automatic Control Research Institute
Ke Yu	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.34
377 Carrier-based aircraft approach: dynamic landing point prediction and safety assessment	
Bing Wan	Naval Aviation Univ.
Wei Han	Naval Aviation Univ.

Zishuang Pan	Naval Aviation Univ.	Research Institute	
Shansong Song	Naval Aviation Univ.	AVIC Xi'an Flight Automatic Control	
10:15-12:15	B12.35	Research Institute	
655 <i>Optimized design of drop guidance system for aviation fire fighting with airworthiness certification</i>			
Jinze Song	COMAC Shanghai Aircraft Design and Research Institute		
Kezhi Zhang	COMAC Shanghai Aircraft Design and Research Institute		
Yabin Dang	COMAC Shanghai Aircraft Design and Research Institute		
Xuyin Yao	COMAC Shanghai Aircraft Design and Research Institute		
Yang Wu	COMAC Shanghai Aircraft Design and Research Institute		
10:15-12:15	B12.36		
889 <i>Dynamic threat assessment framework of aerial targets under continuous data loss and type misidentification</i>			
Changcheng Wang	AVIC Shenyang Aircraft Design and Research Institute		
Pengjiao Li	AVIC Shenyang Aircraft Design and Research Institute		
Xiaodi Yang	Shanghai Jiao Tong Univ.		
10:15-12:15	B12.37		
1448 <i>False-target detection via neural networks with multidimensional statistical features</i>			
Li Wan	Beijing Institute of Electronic System Engineering		
Meng Sun	Huazhong Univ. of Science and Technology		
Yang Li	Beijing Institute of Electronic System Engineering		
10:15-12:15	B12.38		
12 <i>Control strategy for engaging the dog-clutch based on the driver's intention</i>			
Yang Gao	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
Hao Hu	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
Yiqiang Liu	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
Jiangfeng Liu	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
Congqian Wang	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
Dongyang Xin	Aurobay(Ningbo) Intelligent Technology Co., Ltd.		
10:15-12:15	B12.39		
220 <i>Modeling and analysis of dynamic damping characteristics for flight control actuators</i>			
Peng Liu	AVIC Xi'an Flight Automatic Control Research Institute		
Jiahang Zhou	AVIC Xi'an Flight Automatic Control Research Institute		
Yixue Hu	AVIC Xi'an Flight Automatic Control Research Institute		
Linyuan Dong	AVIC Xi'an Flight Automatic Control		
Wei Liu		Research Institute	
10:15-12:15		B12.40	
1372 <i>Influence of isolator layout on the dynamic characteristics of an airborne optoelectronic radar system</i>			
Shihui Wu		Lanzhou Jiaotong Univ.	
Zhigang Chen		Beijing Tsinghua Institute for Frontier Interdisciplinary Innovation	
Cheng Su		Lanzhou Jiaotong Univ.	
Zhigang Zhao		Lanzhou Jiaotong Univ.	
Jihong Zhu		Tsinghua Univ.	
10:15-12:15		B12.41	
7 <i>A ground-based semi-physical method for multi-spacecraft cooperative observation of space spinning targets</i>			
Jinzen Mu		Shanghai Aerospace Control Technology Institute	
He Zhang		Shanghai Aerospace Control Technology Institute	
10:15-12:15		B12.42	
193 <i>Integrated Attitude and Orbit Control Using Four Thrusters with Optimal Pulse Width Allocation</i>			
Jinjin Zhu		Shanghai Aerospace Control Technology Institute	
Mengxuan Wu		Shanghai Aerospace Control Technology Institute	
Changtao Qin		Shanghai Aerospace Control Technology Institute	
Rongfeng Lin		Shanghai Aerospace Control Technology Institute	
10:15-12:15		B12.43	
212 <i>Distance-aware monocular spacecraft pose estimation via a top-down deep learning network</i>			
Linzhe Chen		Southeast Univ.	
Zeyuan Li		Southeast Univ.	
Kelin Lu		Southeast Univ.	
10:15-12:15		B12.44	
362 <i>Multi-frequency anti-aliasing rate damping control analysis for satellites under extreme angular velocity</i>			
Xiwang Xia		Innovation Academy for Microsatellites, CAS	
Fanxing Meng		Harbin Institute of Technology	
Han Du		Shanghai Aerospace Systems Engineering Research Institute	
10:15-12:15		B12.45	
374 <i>Simulation analysis of high-precision orbit determination for lunar satellite using satellite-to-ground laser ranging</i>			
Xiao Zhang		Harbin Institute of Technology	
10:15-12:15		B12.46	
419 <i>Equinoctial Q-law control with pointing constraint for low-thrust orbit transfer</i>			
Chao Duan		Beijing Institute of Control Engineering	
Xiangyu Tang		Beijing Institute of Control Engineering	
Liang Zhou		Beijing Institute of Control Engineering	
Shuo Wang		Beijing Institute of Control Engineering	
Qiang Yu		Beijing Institute of Control Engineering	
Jianxin Guo		Beijing Institute of Control Engineering	

10:15-12:15	B12.47
442 Analysis on lateral circuitous abilities based on L-V profile for hy-personic vehicles	
Siying 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
581 Fixed-magnitude single-impulse orbital interception based on reachable domain and PSO	
Yunxiao Yang	Nanjing Univ. of Aeronautics and Astronautics
Feng Yu	Nanjing Univ. of Aeronautics and Astronautics
10:15-12:15	B12.49
636 Comparative study on magnetic attitude control methods for bias momentum satellites	
Xiwang Xia	Innovation Academy for Microsatellites, CAS
Sibo Wang	Harbin Institute of Technology
Han Du	Shanghai Aerospace Systems 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 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 Astronautics
Zezheng Dong	Nanjing Univ. of Aeronautics and Astronautics
Youtao Gao	Nanjing Univ. of Aeronautics and 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 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 Center for Space Utilization, CAS
Yimin Lyu	Technology and Engineering Center for Space Utilization, CAS
Xinyuan Mao	Technology and Engineering 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 March Vehicle
Yipeng Liu	Beijing Institute of Space Long March Vehicle
Shiyao Li	Beijing Institute of Space Long 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 Center for Space Utilization, CAS
Keman Li	Technology and Engineering Center for Space Utilization, CAS
Ruotong Sun	Technology and Engineering Center for Space Utilization, CAS
Xinyuan Mao	Technology and Engineering Center for Space Utilization, CAS
10:15-12:15	B12.58
1129 Mixed sensitivity PS/T H^∞ 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 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 Microsatellites, CAS
Jiaqing Chen	Innovation Academy for

	Microsatellites, CAS	
Yuebo Wang	Innovation Academy for	
	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	
10:15-12:15	B12.61	
1445 <i>Unpowered aircraft emergency landing: a new planning and guidance method</i>		
Yanpeng Zhao	Air Force Medical Univ.	
Guoshan Yu	Beijing Institute of Aerospace	
	Control Devices	
Weiping Bu	Air Force Medical Univ.	
Yan Jiang	Air Force Medical Univ.	
Rong Lin	Air Force Medical Univ.	
10:15-12:15	B12.62	
1481 <i>Domain randomization for adversarial robustness in orbital collision avoidance: a deep reinforcement learning approach</i>		
Pouya Latifiyan	Beihang Univ.	
Aparna Dongale	MIT Academy of Engineering	
Maria Chowdhury	Univ. of the Potomac	
Lucky Bose	Key Laboratory of Spacecraft	
	Design Optimization & Dynamic	
	Simulation Technologies	
10:15-12:15	B12.63	
1561 太阳敏感器与陀螺组合定姿 EKF 协方差参数优化研究		
Chengjie Tong	Innovation Academy for	
	Microsatellites, CAS	
Han Du	Shanghai Aerospace Systems	
	Engineering Research Institute	
Xiwang Xia	Innovation Academy for	
	Microsatellites, CAS	
Keke Zhang	Innovation Academy for	
	Microsatellites, CAS	
10:15-12:15	B12.64	
1582 <i>Orbital configuration analysis for high-precision cislunar time reference</i>		
Shuanglin Li	Univ. of Chinese Academy of	
	Sciences	
Rongchang Jiao	Univ. of Chinese Academy of	
	Sciences	
Jinghui Pu	Technology and Engineering	
	Center for Space Utilization, CAS	
Xuzhi Li	Technology and Engineering	
	Center for Space Utilization, CAS	
Yuling Geng	Beijing Aerospace Control Center	
Zichen Huang	Beijing Aerospace Control Center	
Wenbin Wang	Technology and Engineering	
	Center for Space Utilization, CAS	
10:15-12:15	B12.65	
1600 <i>Multi-satellite control strategy of configuration establishing for high earth orbit constellations with electric propulsion based</i>		

<i>on thrust arc offset</i>		
Yue Liu	DFH Satellite Co., Ltd.	
Lipeng Chai	DFH Satellite Co., Ltd.	
Minghu Li	DFH Satellite Co., Ltd.	
Xi Cai	DFH Satellite Co., Ltd.	
Mingying Huo	Harbin Institute of Technology	
Ming Li	DFH Satellite Co., Ltd.	
10:15-12:15	B12.66	
1601 <i>Improving navigation performance for geostationary orbit users based on inter-satellite links</i>		
Keman Li	Univ. of Chinese Academy of Sciences	
Leizheng Shu	Univ. of Chinese Academy of Sciences	
Xinyuan Mao	Univ. of Chinese Academy of Sciences	
Wei Zhang	Univ. of Chinese Academy of Sciences	
10:15-12:15	B12.67	
1671 <i>Trajectory optimization design for multi-stage launch vehicle based on adaptive genetic algorithm</i>		
Meijun Yue	Space Engineering Univ.	
Jianhua Wang	Space Engineering Univ.	
Yuanwen Cai	Space Engineering Univ.	
Bingqin Liu	Space Engineering Univ.	
Haoran Du	Space Engineering Univ.	
Bohan Jia	Space Engineering Univ.	
Siyang Wang	Space Engineering Univ.	
Zhen Wang	Space Engineering Univ.	
Zetian Du	Space Engineering Univ.	
10:15-12:15	B12.68	
1682 <i>Learning-based spacecraft attitude control with active pointing ultra-quiet platforms: a gaussian process approach</i>		
Jiliang Song	Beijing Institute of Control Engineering	
Liang Tang	Beijing Institute of Control Engineering	
Renjian Hao	Beijing Institute of Control Engineering	
Jianfa Wu	Beijing Institute of Control Engineering	
Zhiwei Hao	Beijing Institute of Control Engineering	
10:15-12:15	B12.69	
482 <i>An automated operation mode for ascent stage measurement of vehicle measuring based on two-level minimum functional blocks</i>		
Guanghui Ren	Unit 63819 of the PLA	
Long Chang	Unit 63819 of the PLA	
Zhiguo Tian	Unit 63819 of the PLA	
Xin Tu	Unit 63819 of the PLA	
10:15-12:15	B12.70	
301 <i>Online intensity-aware registration of 3D imaging sonar point cloud</i>		
Shiqi Che	Beihang Univ.	
Wenxin Liu	Beihang Univ.	
Jiaxu Pi	Beihang Univ.	
Yijie Liu	Beihang Univ.	
Fa Chen	Suzhou Soundtech Oceanic	
	Instrument Ltd.	
Bin Qian	Suzhou Soundtech Oceanic	
	Instrument Ltd.	
Lei Guo	Beihang Univ.	
10:15-12:15	B12.71	
713 <i>Heave motion measurement algorithm with lever-arm compensation for off-center monitoring points on marine</i>		

<i>platforms</i>		Suli Zou	Beijing Institute of Technology
Xiaofeng Wei	Harbin Institute of Technology	10:15-12:15	B12.77
Wei Gao	Harbin Institute of Technology	277 Aerodynamic parametric improvement and multibody inertial-coupling modeling of a variable-sweep flight vehicle	
Yiming Lu	Harbin Institute of Technology	Yuxuan Tang	Northwestern Polytechnical Univ.
Baojin Ping	Harbin Institute of Technology	Min Zhou	Northwestern Polytechnical Univ.
Hong Zhu	Harbin Institute of Technology	Ruyue Jiang	Northwestern Polytechnical Univ.
Feng Shen	Harbin Institute of Technology	10:15-12:15	B12.78
10:15-12:15	B12.72	308 Residual PINN for cooperative guidance with FOV-constrained interception	
981 冷原子干涉角速度测量光路系统设计与实现		Fangzhou Jia	Beijing Institute of Technology
Zexin Wang	Division of Mechanics and Acoustics Metrology, National Institute of Metrology	Qunli Xia	Beijing Institute of Technology
Wen Ye	Division of Mechanics and Acoustics Metrology, National Institute of Metrology	Yangxin Liu	Beijing Institute of Technology
Wenjie Xu	Huazhong Univ. of Science and Technology	Qiuqiu Wen	Beijing Institute of Technology
Jun Cheng	Huazhong Institute of Electro-Optics	10:15-12:15	B12.79
10:15-12:15	B12.73	395 A multi-constrained predictor-corrector guidance method for terminal velocity control	
1245 Deep sea precise positioning augmented by large LEO communication constellations		Haoyuan Li	Xi'an Modern Control Technology Research Institute
Haoyu Lin	Beihang Univ.	Yajun Li	Xi'an Modern Control Technology Research Institute
Haorui Yang	Beihang Univ.	Shihao Xu	Xi'an Modern Control Technology Research Institute
Yilu Wang	Beihang Univ.	Jing Lu	Xi'an Modern Control Technology Research Institute
Tianxiao Luo	Beihang Univ.	Yutan Yan	Xi'an Modern Control Technology Research Institute
Yixiao Wang	Beihang Univ.	10:15-12:15	B12.80
Bailu Pan	Beihang Univ.	555 Time-varying weighting function-based guidance law for maneuvering target interception	
Zhen Li	Beihang Univ.	Xin Li	Beijing Institute of Technology
10:15-12:15	B12.74	Qiuqiu Wen	Beijing Institute of Technology
1473		Xiangdong Liu	Beijing Institute of Technology
<i>Terrain matching region selection algorithm based on contrastive clustering</i>		Yuxiang Chang	Beijing Institute of Technology
Kaifeng Hu	Huazhong University of Science and Technology	10:15-12:15	B12.81
Hai Xu	Huazhong University of Science and Technology	605 Impact angle constrained terminal guidance method based on iterative velocity prediction	
Sheng Zhong	Huazhong University of Science and Technology	Junjie Ai	Beijing Institute of Technology
10:15-12:15	B12.75	Qiuqiu Wen	Beijing Institute of Technology
1202 Crawling control of underwater quadruped robots on uneven terrain		Zheng Liu	Beijing Institute of Technology
Guanqiao Chen	Wuhan Second Ship Design and Research Institute	Jiahui Zhang	Beijing Institute of Technology
Kang Zhang	Wuhan Second Ship Design and Research Institute	Wenjie Wang	Beijing Institute of Technology
Zhang Hao	Wuhan Second Ship Design and Research Institute	10:15-12:15	B12.82
Xiawei Guan	Wuhan Second Ship Design and Research Institute	644 In-flight alignment and integrated navigation algorithm of hypervelocity projectile in the launch-centered earth-fixed frame	
10:15-12:15	B12.76	Kai Chen	Northwestern Polytechnical Univ.
1640 Predefined-time backstepping sliding mode control for AUV depth		Sicheng Yang	Northwestern Polytechnical Univ.
Donghui Li	Beijing Institute of Technology	Pengli Wu	Northwestern Polytechnical Univ.
Zhongjing Ma	Beijing Institute of Technology	Jinlong Song	Naval Univ. of Engineering
Yu Liu	Beijing Institute of Technology	Xiangping Li	Naval Univ. of Engineering
Zhigang Gao	Beijing Institute of Technology	Yongchao Wang	Northwestern Polytechnical Univ.
		Chengzhi Zeng	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	
		Zhengran Qu	Northwestern Polytechnical Univ.

Qing Lu	Northwestern Polytechnical Univ.
Ruimin Jiang	Northwestern Polytechnical Univ.
Bin Zhao	Northwestern Polytechnical Univ.
10:15-12:15	B12.84
712 <i>Fuzzy overload allocation method for blended control interceptor with improved PSO algorithm</i>	
Jinlong Zhao	Northwestern Polytechnical Univ.
Shaozheng Feng	Northwestern Polytechnical Univ.
Jun Zhou	Northwestern Polytechnical Univ.
10:15-12:15	B12.85
830 <i>Meta-learning-based impact angle control guidance with accurate time-to-go estimation</i>	
Chenxing Wang	Harbin Institute of Technology
Yueyong Lv	Harbin Institute of Technology
Pengyu Wang	Harbin Institute of Technology
Yuxin Yang	Harbin Institute of Technology
10:15-12:15	B12.86
897 <i>Analytical reentry guidance method considering terminal flight capability limitation</i>	
Yangyang Wan	Beijing Institute of Technology
Jie Guo	Beijing Institute of Technology
Cheng Fu	Beijing Institute of Technology
Zhongzhong Zheng	Beijing Institute of Technology
Shengjing Tang	Beijing institute of Technology
10:15-12:15	B12.87
34 <i>Design of longitudinal stability augmentation control law for high-aspect-ratio over-the-wing engine UAV</i>	
Haogang Zhao	AVIC First Aircraft Design and Research Institute
Jingjing He	AVIC First Aircraft Design and Research Institute
Huiwen Han	AVIC Chinese Flight Test Establishment
10:15-12:15	B12.88
1052 <i>A rapid full-course initial trajectory planning method for hypersonic reentry vehicles</i>	
Peiyu Cao	Tsinghua Univ.
Yanguang Fu	Tsinghua Univ.
Qing Li	Tsinghua Univ.
10:15-12:15	B12.89
1054 <i>An analytical intermediate-distance constrained guidance law with multi-state convergence</i>	
Yuxiang Chang	Beijing Institute of Technology
Qiuqiu Wen	Beijing Institute of Technology
Xin Li	Beijing Institute of Technology
Jiahui Zhang	Beijing Institute of Technology
Shaoyue He	Beijing Institute of Technology
10:15-12:15	B12.90
1120 <i>An anti-jamming STAP algorithm for GNSS receivers in attitude disturbance state</i>	
Haiyang Wang	Rocket Force Univ. of Engineering
Qian Chen	Rocket Force Univ. of Engineering
Zhiyong Yu	Rocket Force Univ. of Engineering
Zhicheng Yao	Rocket Force Univ. of Engineering
Bo Hou	Rocket Force Univ. of Engineering
Linlin Li	Rocket Force Univ. of Engineering
10:15-12:15	B12.91

1219 <i>A hierarchical guidance framework for impact time and angle control using model predictive static programming</i>	
Zhiyu Liu	Beihang Univ.
Wanchun Chen	Beihang Univ.
10:15-12:15	B12.92
1271 <i>Robust trajectory optimization based on covariance control under uncertainty</i>	
Zhaoyu Yang	Beihang Univ.
Wanchun Chen	Beihang Univ.
Xiang Li	Beihang Univ.
Wengui Lei	Beihang Univ.
10:15-12:15	B12.93
1371 <i>A hardware accelerator for rapid computation of line-of-sight angular rates in roll-pitch seekers</i>	
Zhenzhou Jia	Beijing Microelectronic Technology Institute
Mengwen Fan	Beijing Microelectronic Technology Institute
Jian Zhang	Beijing Microelectronic Technology Institute
10:15-12:15	B12.94
1585 <i>Time-coordinated reentry guidance for multiple no-fly zone avoidance based on a range-determined strategy</i>	
Mingran Zheng	Beijing Institute of Technology
Jie Guo	Beijing Institute of Technology
Fangyu Jia	Beijing Institute of Technology
Shengjing Tang	Beijing Institute of Technology
10:15-12:15	B12.95
1697 <i>Intelligent 3D evasion against dual non-cooperative aerial vehicles: an energy-efficient optimal guidance approach</i>	
Taiyuan Liang	China Academy of Launch Vehicle Technology
Yin Pei	China Academy of Launch Vehicle Technology
Ben Yang	China Academy of Launch Vehicle Technology
Keqin Chen	China Academy of Launch Vehicle Technology
10:15-12:15	B12.96
167 一种 RLV 速度控制及燃料消耗量预估方法	
Jiahao Gan	Beihang Univ.
Yuanpeng Fang	AVIC Chengdu Aircraft Design and Research Institute
Jin Zhang	AVIC Chengdu Aircraft Design and Research Institute
10:15-12:15	B12.97
338 一种基于图像的视觉伺服自主拦截无人机	
Zhongxiang Bao	Beihang Univ.
Jianglong Yu	Beihang Univ.
Xiwang Dong	Beihang Univ.
10:15-12:15	B12.98
370 <i>Analysis of the influence mechanism of initial altitude error on navigation error</i>	
Penglei Zhao	Beijing Institute of Astronautical Systems Engineering
Yimeng Gao	Beijing Institute of Astronautical Systems Engineering

10:15-12:15	B12.99
511 <i>Convergence-guaranteed homing trajectory planning for a parafoil system using convex optimization</i>	
Jialin Sun	Beijing Institute of Space Mechanics and Electricity
Zheng Li	Beihang Univ.
Yueyang Liu	Beihang Univ.
Lin Liu	Beijing Institute of Space Mechanics and Electricity
10:15-12:15	B12.100
447 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	
Linbo Huang	Harbin Engineering Univ
Lei Zhang	AVIC Shenyang Aircraft Design and Research Institute
Jiawei Xia	Naval Aviation Univ
Qiang Yu	Harbin Engineering Univ
Ruizhe Ma	Harbin Engineering Univ
10:15-12:15	B12.101
648 <i>DDPG-based auto-tuning of PID parameters for hypersonic vehicle attitude control</i>	
Zhentaoy Bian	Beijing Institute of Technology
Qunli Xia	Beijing Institute of Technology
Yangxin Liu	Beijing Institute of Technology
Puyang Qi	Beijing Institute of Technology
10:15-12:15	B12.102
799 <i>GPS L1C 信号模拟器设计与闭环收发实验验证</i>	
Yafeng Li	Beijing Information Science and Technology University
Zhen Shen	Beijing Information Science and Technology University
Yi Ji	Beijing Information Science and Technology University
Junfang Fan	Beijing Information Science and Technology University
10:15-12:15	B12.103
1177 <i>Intelligent control of hypersonic flight vehicles based on additive state decomposition</i>	
Yu Wang	Xi'an Univ. of Posts & Telecommunications
Jinrui Ren	Xi'an Univ. of Posts & Telecommunications
Yuan Zheng	Xi'an Univ. of Posts & Telecommunications
10:15-12:15	B12.104
1538 <i>Pseudo-spectral differentiation for control rate constrained reentry trajectory optimization</i>	
Yubo Qin	Aerospace Technology Institute of CARDC
Chao Ou	Aerospace Technology Institute of CARDC
Huajun Zhu	State Key Laboratory of Aerodynamics
Hailong Liang	Aerospace Technology Institute of CARDC
Zichen Tang	Aerospace Technology Institute of CARDC
10:15-12:15	B12.105
256 惯性行人导航系统误差分析及在线标定方法	
Hanlin Zhang	AVIC Xi'an Flight Automatic Control Research Institute

Min Guo	AVIC Xi'an Flight Automatic Control Research Institute
Huaxiang Yi	AVIC Xi'an Flight Automatic Control Research Institute
Junling Zhang	AVIC Xi'an Flight Automatic Control Research Institute
10:15-12:15	B12.106
501 <i>Geometry-aware minimum-clearance estimation and delay-compensated predictive braking for final aircraft docking of airport special vehicles</i>	
Jianshu Gao	Civil Aviation Univ. of China
Wenqing Xue	Civil Aviation Univ. of China
10:15-12:15	B12.107
906 <i>Attractive manifold-based navigation for automated guided vehicles</i>	
Enhao Zeng	Beihang Univ.
Xinyu Xu	Beihang Univ.
Gennady Veselov	Southern Federal Univ.
Zeyu Wang	Beihang Univ.
Hanting Fang	Beihang Univ.
Lingling Wang	Beihang Univ.
Li Fu	Beihang Univ.
10:15-12:15	B12.108
92 <i>Time-varying formation coordinated and tracking control based on prescribed-time sliding mode disturbance observer</i>	
Xin Du	Beihang Univ.
Yicong Lin	Beihang Univ.
Chaoyang Dong	Beihang Univ.
Zhenyuan Song	Beihang Univ.
10:15-12:15	B12.109
185 <i>Cooperative control for spacecraft swarms under byzantine attacks and input constraints</i>	
Dexin Jiao	Sun Yat-sen Univ.
Yu Zhang	AVIC Chengdu Aircraft Design and Research Institute
Mingjun Liu	Sun Yat-sen Univ.
Haizhao Liang	Sun Yat-sen Univ.
10:15-12:15	B12.110
266 <i>Master-slave synchronous flight control for a three-module combined multi-body UAV in fixed-wing mode</i>	
Zhicong Shao	Beihang Univ.
Xi Huang	Beihang Univ.
Zewen sun	Beihang Univ.
Pengyuan Qi	Beihang Univ.
10:15-12:15	B12.111
290 <i>Ratio-of-distance rigidity based formation control under actuator smoothness constraints</i>	
Wei Luo	Rocket Force Univ. of Engineering
Tao Zhang	Tsinghua Univ.
Jiawei Zhao	Rocket Force Univ. of Engineering
10:15-12:15	B12.112
523 <i>A segregation control method for UAV swarms based on coupled differential equations</i>	
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	10:15-12:15	B12.120
Jingwei Dong	Army Engineering Univ. of PLA	1631 Collision avoidance for underactuated unmanned surface vehicles based on enhanced error constraints	
10:15-12:15	B12.113	Yuchao Wang	Harbin Engineering Univ.
573 Numerical analysis of UAV electro-optical pod system under error of shafting		Tuoxin Chen	Harbin Engineering Univ.
Zi Zhao	Shaanxi Institute of Technology	Shiquan Zhao	Harbin Engineering Univ.
Linna Zhang	Shaanxi Institute of Technology	Huixuan Fu	Harbin Engineering Univ.
10:15-12:15	B12.114	10:15-12:15	B12.121
575 Fuzzy comprehensive evaluation analysis for two axis servo turntable		508 Air-Ground cooperative navigation for sensor-less UGVs based on UAV active perception	
Linna Zhang	Shaanxi Institute of Technology	Jiang Zhao	Beihang Univ.
Zi Zhao	Shaanxi Institute of Technology	Minghao Pi	Beihang Univ.
Daiwei Gan	Shaanxi Institute of Technology	Pei Chi	Beihang Univ.
10:15-12:15	B12.115	Yingxun Wang	Beihang Univ.
933 Distributed group tracking and reactive obstacle avoidance for UAV swarms in multi-target scenarios		10:15-12:15	B12.122
Shihan Chen	Beihang Univ.	566 Vision-Based UAV control with spatio-temporal attention mechanism under occlusion constraints	
Jiang Zhao	Beihang Univ.	Mengchen Sun	Beihang Univ.
Pei Chi	Beihang Univ.	Jiang Zhao	Beihang Univ.
Yingxun Wang	Beihang Univ.	Pei Chi	Beihang Univ.
10:15-12:15	B12.116	Yingxun Wang	Beihang Univ.
1332 Cooperative collision avoidance guidance law for multiple missiles based on control barrier function		10:15-12:15	B12.123
Zhihan Liu	Nanjing Univ. of Aeronautics and Astronautics	684 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	
Xiaoming chen	Nanjing Univ. of Aeronautics and Astronautics	Yang Yang	Beihang Univ.
Yuxuan Chu	Nanjing Univ. of Aeronautics and Astronautics	Zhihao Lyu	Beihang Univ.
Junxiao Li	Nanjing Univ. of Aeronautics and Astronautics	Zheng Zhang	Beihang Univ.
10:15-12:15	B12.117	Haibing Chen	Beihang Univ.
1336 Local consensus of discrete-time second-order multi-agent systems with input saturation and fixed communication delay		10:15-12:15	B12.124
Qi Fu	Jiangsu Univ. of Science and Technology	1107 Energy-Optimal waypoint-oriented trajectory planning for solar-powered UAV based on multi-objective reinforcement learning	
Changjiang Li	Jiangsu Univ. of Science and Technology	Tichao Xu	Institute of Engineering Thermophysics, CAS
Zhaoping Du	Jiangsu Univ. of Science and Technology	Jingrong Fang	Institute of Engineering Thermophysics, CAS
Jianzhen Li	Jiangsu Univ. of Science and Technology	Wenyue Meng	Institute of Engineering Thermophysics, CAS
10:15-12:15	B12.118	Jian Zhang	Institute of Engineering Thermophysics, CAS
1435 Indirect manifold based two-time-scales consensus		10:15-12:15	B12.125
Jialong Chen	Guangxi Univ.	1304 Low-Dimensional evasion strategy for multiple flight vehicles based on MAH-MAPPO	
Linglan Kang	Guangxi Univ.	Bowei Yan	Harbin Institute of Technology
Yang Wu	Guangxi Univ.	Xiaojun Ban	Harbin Institute of Technology
10:15-12:15	B12.119	Runle Du	National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics
1610 Robust control and tension allocation for multi-UAV slung-payload transport subject to composite disturbances and safety constraints		10:15-12:15	B12.126
Hualin Qiu	Southwest Univ. of Science and Technology	1605 A machine vision approach for gear end-face defect inspection and automatic sorting	
Yuying GUO	Southwest Univ. of Science and Technology	Yifeng Zhang	Jingchu Univ. of Technology
Youmin Zhang	Concordia Univ.	Weijie Jia	Jingchu Univ. of Technology
Hao Liu	Lunan Institute of Technician	Jing Yang	Jingchu Univ. of Technology
		Li Zhang	Jingchu Univ. of Technology
		10:15-12:15	B12.127
		432 Cooperative search and tracking for UAV swarm via	

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

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
1039 <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
1522 <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.	322 <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
10:15-12:15	B12.144		and Intelligent Systems
843 <i>Research on fixed-wing UAV formation control technology based on consensus theory and artificial potential field method</i>		Chaoxiong Huang	State Key Laboratory of Robotics
Zongheng Liao	AVIC Shenyang Aircraft Design and Research Institute		and Intelligent Systems
Kai Huang	AVIC Shenyang Aircraft Design and Research Institute	Yanchun Chang	State Key Laboratory of Robotics
10:15-12:15	B12.145		and Intelligent Systems
901 <i>A DGCNN-based method for UAV swarm spatial formation recognition</i>		Liying Yang	State Key Laboratory of Robotics
Weiyi Zhang	Univ. of Electronic Science and Technology of China		and Intelligent Systems
Xiaoping Chen	Univ. of Electronic Science and Technology of China	Peng Li	State Key Laboratory of Robotics
Wanting Li	AVIC Chengdu Aircraft Design and Research Institute		and Intelligent Systems
Kangsong Wang	Univ. of Electronic Science and Technology of China	Yuqing He	State Key Laboratory of Robotics
Hui Liu	AVIC Chengdu Aircraft Design and Research Institute		and Intelligent Systems
Xiaobo Ma	AVIC Xi'an Aeronautics Computing Technology Research Institute	10:15-12:15	B12.151
10:15-12:15	B12.146	382 <i>An integrated flight/propulsion control strategy for aircraft with distributed electric propulsion</i>	
177 <i>Collision-Free trajectory tracking for quadrotor UAVs via control barrier function and Kalman filtering</i>		Biao Wang	Nanjing Univ. of Aeronautics and Astronautics
Haoqiang Liu	Southeast Univ.	Ziyang Zheng	Nanjing Univ. of Aeronautics and Astronautics
Ruijia Zhang	Southeast Univ.	Chaoying Tang	Nanjing Univ. of Aeronautics and Astronautics
Lu Kelin	Southeast Univ.	10:15-12:15	B12.152
10:15-12:15	B12.147	592 <i>Trajectory prediction for maneuvering targets via multidimensional feature fusion</i>	
178 <i>Probabilistic guidance for unmanned aerial vehicle collision avoidance in the presence of intruder decision uncertainty</i>		Yulin Tang	Beihang Univ.
Yuqi Feng	Southeast Univ.	Kun Wu	Beihang Univ.
Kelin Lu	Southeast Univ.	Gengchao Liu	Beihang Univ.
10:15-12:15	B12.148	Jiayin Zhai	Beihang Univ.
285 <i>Robust quadrotor control under extreme wind disturbances via continuous-time liquid neural networks</i>		Wei Lan	Beihang Univ.
Qiqi Li	Guilin Univ. of Electronic Technology	10:15-12:15	B12.153
Furong Jiang	Guilin Univ. of Electronic Technology	749 <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>	
Xiyan Sun	Guilin Univ. of Electronic Technology	Haoyu Jiang	Beihang Univ.
10:15-12:15	B12.149	Zheng Zhang	Beihang Univ.
313 <i>Hierarchical reinforcement learning for fixed-wing UAV combat decision and fault-tolerant control in games</i>		Haibing Chen	Beihang Univ.
		10:15-12:15	B12.154
		870 <i>Service-Oriented layered software architecture for UAV vehicle management systems</i>	
		Xiangqian Xu	AVIC, Xi'an Flight Automatic Control Research Institute
		Ran Peng	AVIC Xi'an Flight Automatic Control Research Institute
		Yingxi Liang	AVIC Xi'an Flight Automatic Control

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

C1 **1st Floor VIP Room**
Modeling GNC **1层 贵宾厅**

Chair: Gang Wang	
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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
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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
1347 <i>Bird-strike avoidance during final approach via gaussian-process prediction and model predictive control</i>	
Pengcheng Ren	Beihang Univ.
Rentong Chen	Beihang Univ.
Xingjian Wang	Beihang Univ.
Chao Zhang	Beihang Univ.
Yuwei Zhang	Beihang Univ.
Rui Mu	Beihang Univ.
Shaoping Wang	Beihang Univ.
14:42-14:50	C1.10
664 航空永磁同步电机位置智能监控与容错控制	
Wei Zhang	Beijing Keeven Aviation Instrument Co., Ltd
Yifan Gong	Beijing Keeven Aviation Instrument Co., Ltd
Shan Li	Beijing Keeven Aviation Instrument Co., Ltd
14:50-14:58	C1.11
824 基于 GAF 多通道灰度图与 CNN 的永磁同步电机故障检测方法	
Tianbo Liang	Beijing Keeven Aviation Instrument Co., Ltd
Lulu Liang	Beijing Keeven Aviation Instrument Co., Ltd
Ming Sun	Beijing Keeven Aviation Instrument Co., Ltd
14:58-15:06	C1.12
1603 <i>Design and evaluation of a triple-redundant flight control system for UAVs</i>	
Dong Wang	AVIC Xi'an Aeronautics Computing Technique Research Institute
Jianing Li	Nanjing Univ. of Aeronautics and Astronautics
Hongyan Qian	Nanjing Univ. of Aeronautics and Astronautics
15:06-15:14	C1.13
1104 <i>Zero-sum differential game-based data-driven sliding mode FTC for nonlinear discrete-time systems</i>	
Minxuan Li	Hefei Univ. of Technology
Wenjing Ren	Hefei Univ. of Technology
Junhao Zhu	Hefei Univ. of Technology
15:14-15:22	C1.14
840 <i>Fault localization in flush air data sensing systems using a hybrid data-driven and physics-based approach</i>	
Jie Wang	Chengdu Univ. of Information and Technology
Dibo Xiao	Chengdu Univ. of Information and Technology
C2 2nd Floor Yangshuo Room	
Reasoning GNC 2 层 阳朔厅	
Chair: Rui Mu	
13:30-13:38	C2.1
329 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	
Yu Zhou	AVIC Chengdu Aircraft Design and Research Institute

Jiniang Bian	AVIC Chengdu Aircraft Design and Research Institute
Jun Zhang	AVIC Chengdu Aircraft Design and Research Institute
Jie Zhong	Sichuan Univ.
13:38-13:46	C2.2
1108 <i>TACL: A generalized approach for multi-robot task allocation using collaborative LLMs</i>	
Yandong Wang	Beihang Univ.
Xuxin Lv	Beihang Univ.
Junle Wang	Beihang Univ.
Xiaolin Ai	Institute of Automation, CAS
Wenjun Wu	Beihang Univ.
13:46-13:54	C2.3
1297 <i>SWORD: Alleviating overthinking in LLMs via semantic window for redundancy detection</i>	
Jingjing Huang	Institute of Automation, CAS
Jinyuan Feng	Institute of Automation, CAS
Xiaolin Ai	Institute of Automation, CAS
Zhiqiang Pu	Institute of Automation, CAS
13:54-14:02	C2.4
1306 <i>LLM-driven conversational agents for adaptive learning path recommendations</i>	
Zeping Liu	Beihang Univ.
Jian Ren	Beihang Univ.
Wenjun Wu	Beihang Univ.
14:02-14:10	C2.5
1326 <i>LLM-enhanced strategy-guided decision making for multi-agent reasoning</i>	
Xiao Wang	Beihang Univ.
Jian Ren	Beihang Univ.
Wenjun Wu	Beihang Univ.
14:10-14:18	C2.6
715 <i>Large model agent for intelligent control of unmanned systems: challenges, solutions and experimental validation</i>	
Haoyu Guo	China Research and Development Academy of Machinery Equipment
Xiaozhang Liu	China Research and Development Academy of Machinery Equipment
Chen Ke	China Research and Development Academy of Machinery Equipment
Zilong Bai	China Research and Development Academy of Machinery Equipment
Shihao Pan	China Research and Development Academy of Machinery Equipment
Yafei Yuan	China Research and Development Academy of Machinery Equipment
14:18-14:26	C2.7
1208 <i>Spatio-temporal transformer cross-modal fusion for robust dexterous grasping under occlusion</i>	
Yali Fan	Beihang Univ.
Jian Shi	Beihang Univ.
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**

Chair: 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
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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
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Chao Zhou	COMAC Shanghai Aircraft Design and Research Institute
Chang Liu	COMAC Shanghai Aircraft Design and Research Institute
14:10-14:18	C3.6
1502 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	
Zhaoxiong Wang	Beihang Univ.
Yunhua Li	Beihang Univ.
14:18-14:26	C3.7
1586 <i>Dynamic stiffness analysis of civil aircraft flight control hydraulic servo actuation system</i>	
Jian Huang	Shanghai Aircraft Design and Research Institute
14:26-14:34	C3.8
1647 <i>Distributed self-learning coordination control for multi-spacecraft with actuator degradation</i>	
Baopeng Zhu	Southeast Univ.
Yi Deng	Beihang Univ.
Lixuan He	Beihang Univ.
Yukai Zhu	Beihang Univ.
14:34-14:42	C3.9
1649 <i>Axial resonance suppression of active magnetic bearings-rotor system by phase compensation under flexible-foundation support</i>	
Yuxin Zeng	Beihang Univ.
Ximing Liu	Beihang Univ.
Yang Yan	Beihang Univ.
Yifan Yin	Beihang Univ.
Shiqiang Zheng	Beihang Univ.
14:42-14:50	C3.10
881 <i>Optimization of fuel station placement for on-orbit refueling of SSO satellite clusters</i>	
Tianle Yin	Jiangnan Univ.
Xiaoyu Zhu	Shanghai Jiao Tong Univ.
Zhijian He	Shenzhen Technology Univ.
Jihe Wang	Sun Yat-Sen Univ.
Kaixiang Yang	South China Univ. of Technology
Chengxi Zhang	Jiangnan Univ.
14:50-14:58	C3.11
861 <i>Performance control methodology for trajectory tracking in small celestial body landing</i>	
Zhihui Sui	China Academy of Space Technology
Changhao Sun	China Academy of Space Technology
Yi Xiu	China Academy of Space Technology
14:58-15:06	C3.12
1651 火星大气辅助变轨安全策略自主规划与控制	
Minwen Guo	Beijing Control Engineering Research Institute
Xiangyu Huang	Beijing Control Engineering Research Institute
Haixia Hu	Beijing Control Engineering Research Institute
15:06-15:14	C3.13
1237 基于多智能体强化学习的卫星追逃防御博弈	
Wenxuan Wang	Nanjing Univ. of Aeronautics and Astronautics

Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics
Chuchu Han	Nanjing Univ. of Aeronautics and Astronautics
15:14-15:22	C3.14
380 <i>Distributed asynchronous CI fusion filter for satellite clusters</i>	
Jingliang Gui	Nanjing Univ. of Aeronautics and Astronautics
Shuli Liang	National Key Laboratory of Space Security
Wang Lu	National Key Laboratory of Space Security
Bing Hua	Nanjing Univ. of Aeronautics and Astronautics
C4 2nd Floor Nanning Room1 Collaborative GNC 2 层 南宁厅 1	
Chair: Yang Liu	
13:30-13:38	C4.1
863 多飞行器俯冲段滑模协同制导控制一体化	
Zigang Jin	Nanjing Univ. of Aeronautics and Astronautics
Yanli Du	Nanjing Univ. of Aeronautics and Astronautics
Yanbin Liu	Nanjing Univ. of Aeronautics and Astronautics
Xinping Zhu	Nanjing Univ. of Aeronautics and Astronautics
13:38-13:46	C4.2
276 <i>Adaptive collaborative decision-making method for multi-UAV herding control</i>	
Jiang Zhao	Beihang Univ.
XinHang Ma	Beihang Univ.
Zhi Yang	Beihang Univ.
Pei Chi	Beihang Univ.
Yingxun Wang	Beihang Univ.
13:46-13:54	C4.3
1134 <i>Cooperative decision-making in 5v5 satellite confrontation using multi-agent soft actor-critic</i>	
Jiaye Chen	Tianjin Univ.
Xiuyun Zhang	Tianjin Univ.
Da Liu	Tianjin Univ.
Hanyu Liang	Beijing Institute of Control Engineering
Wenjing Liu	Beijing Institute of Control Engineering
Qun Zong	Tianjin Univ.
13:54-14:02	C4.4
936 <i>Adaptive hierarchical multi-agent reinforcement learning for cooperative control</i>	
Yongkai Tian	Beihang Univ.
Zhiyu Li	Beihang Univ.
Shuguang Zhang	Beihang Univ.
Yang Liu	Beihang Univ.
Jie Luo	Beihang Univ.
14:02-14:10	C4.5
1369 <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
Jinyuan Feng	Institute of Automation, CAS
Chenyi Li	Beijing Univ. of Technology
Xiaolin Ai	Institute of Automation, Chinese Academy of Sciences
Yuqian Zhao	Central South Univ.
14:10-14:18	C4.6
802 Temporal hypergraph coalition game for distributed multi-UAV swarm coordination	
Changping Yu	Beihang Univ.
Yang Liu	Beihang Univ.
14:18-14:26	C4.7
143 Trajectory optimization for heterogeneous gliding vehicle swarms with tight spatiotemporal cooperation constraints	
Rui Li	Xiamen Univ.
Yue Feng	Univ. of Electronic Science and Technology of China
Zonghua Sun	Xiamen Univ.
14:26-14:34	C4.8
226 Task scheduling for capability-variant UAV swarms via capability-aware clustering and improved particle swarm optimization	
Qicheng Liu	Univ. of Jinan
Meng Li	Univ. of Jinan
Shuo Zhang	Univ. of Jinan
14:34-14:42	C4.9
1201 An improved nonlinear model predictive control method for UAV trajectory optimization	
Jiaqi chen	Sichuan Univ.
Junjian Zhan	Sichuan Univ.
Kairui Zhang	Sichuan Univ.
Baoxinyu Wang	Sichuan Univ.
Guangtai Tian	Sichuan Univ.
Bin Li	Sichuan Univ.
14:42-14:50	C4.10
1750 Exploration on the intelligent transformation path of mechatronic technology course driven by digital-intelligent technology	
Yong Zhang	Guilin Univ. of Aerospace Technology
Ping Sun	Guilin Normal Univ.
14:50-14:58	C4.11
560 基于改进鲸鱼优化算法的多无人机协同目标搜索	
Wenyao Ma	Nanjing Univ. of Aeronautics and Astronautics
Ju Jiang	Nanjing Univ. of Aeronautics and Astronautics
14:58-15:06	C4.12
1721 Hierarchical planning method for UAV swarms based on deep reinforcement learning and quantum-assisted optimization framework	
Quan Li	Jiangsu Second Normal Univ.
Zitong Shen	Jiangsu Second Normal Univ.
Wei Pan	Jiangsu Second Normal Univ.
Yiyang Ni	Jiangsu Second Normal Univ.
Linlin Xu	Jiangsu Second Normal Univ.
Haiying Wan	Jiangnan Univ.
Chengxi Zhang	Jiangnan Univ.

Jimei Li	Yantai Univ.
15:06-15:14	C4.13
1412 A bi-level planning method for collaborative task allocation of urban logistics UAVs	
Wei Chen	Air Force Engineering Univ.
Fuping Yu	Air Force Engineering Univ.
Xingyi Pan	Air Force Engineering Univ.
15:14-15:22	C4.14
1085 Distributed trajectory planning for quadrotor swarm in narrow and tilted pipes	
Yiming Zhang	Beijing Institute of Technology
Kewei Xia	Beijing Institute of Technology
15:22-15:30	C4.15
1145 Research on dual-aircraft cooperative rendezvous based on reinforcement learning and interfered fluid field	
Ruotong Xu	Beihang Univ.
Honglun Wang	Beihang Univ.
Junfan Zhu	Beihang Univ.
C5 2nd Floor Nanning Room2	
Prediction GNC 2 层 南宁厅 2	
Chair: Yin Wang	
13:30-13:38	C5.1
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	
Yonglan Lai	Nanjing Univ. of Aeronautics and Astronautics
Yin Wang	Nanjing Univ. of Aeronautics and Astronautics
13:38-13:46	C5.2
701 基于 PPO-CBF 的四旋翼无人机避障导航方法	
Shiji Wang	Nanjing Univ. of Aeronautics and Astronautics
Yin Wang	Nanjing Univ. of Aeronautics and Astronautics
13:46-13:54	C5.3
704 基于动态障碍代价的无人机编队轨迹优化方法	
Yang Li	Nanjing Univ. of Aeronautics and Astronautics
Yin Wang	Nanjing Univ. of Aeronautics and Astronautics
13:54-14:02	C5.4
150 Robust composite velocity tracking control for quadrotor UAVs via model-assisted ESO based error-state MPC	
Zongyi Chen	Yangzhou Univ.
Rui Cao	Yangzhou Univ.
14:02-14:10	C5.5
707 Long-distance runway detection and false positive elimination method for UAV autonomous landing	
Geng Chen	Northwestern Polytechnical Univ.
Chenggang Tao	AVIC Chengdu Aircraft Design and Research Institute
Tian Yin	AVIC Chengdu Aircraft Design and Research Institute
Tianxu Li	AVIC Chengdu Aircraft Design and Research Institute
Xiaohong Wang	AVIC Chengdu Aircraft Design and Research Institute
Rui Zhang	Northwestern Polytechnical Univ.

Bin Xu	Northwestern Polytechnical Univ.
14:10-14:18	C5.6
1729 <i>DDPG-PID based autonomous control technology for UAV visual takeoff and landing</i>	
Zhongkai Zheng	Air Force Engineering Univ.
Hailin Li	Air Force Engineering Univ.
Jing Ni	AVIC Chengdu Aircraft Design and Research Institute
Hang Yuan	Air Force Engineering Univ.
14:18-14:26	C5.7
333 <i>Anthropomorphic implicit mapping for heterogeneous robotic teleoperation via PPO</i>	
Jiarui Tong	Harbin Institute of Technology
Tong Wu	Harbin Institute of Technology
Lei Ding	State Grid Heilongjiang Electric Power Co., Ltd.
Zhan Li	Harbin Institute of Technology
14:26-14:34	C5.8
1283 基于两阶段图网络的复杂约束环境大批次目标分配方法研究	
Xinwen Ye	Fudan Univ.
Yiqun Dong	Fudan Univ.
14:34-14:42	C5.9
1331 知识数据双驱动的空战目标轨迹预测研究	
Pengyu Luo	Fudan Univ.
Yiqun Dong	Fudan Univ.
14:42-14:50	C5.10
1343 基于神经过程的飞行员近距空战任务绩效预测	
Jun Yao	Fudan Univ.
Yiqun Dong	Fudan Univ.
14:50-14:58	C5.11
823 <i>Efficient structured information extraction for aviation hub data based on language model multiple sampling</i>	
Mengqiao Liu	Tsinghua Univ.
Yixuan Fan	Tsinghua Univ.
Haixu Li	Tsinghua Univ.
Tao Xue	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
14:58-15:06	C5.12
591 <i>Adaptive online learning for industrial process monitoring via temporal feature enhancement and data lifecycle management</i>	
Lin Feng Tong	Univ. of Science and Technology of China
Kehao Shi	Univ. of Science and Technology of China
Yunbo Zhao	Univ. of Science and Technology of China
Yu Kang	Univ. of Science and Technology of China
Zhenyi Xu	Univ. of Science and Technology of China
15:06-15:14	C5.13
597 <i>Current-window ensemble with historical model reuse for drift-robust semiconductor virtual metrology</i>	
Jianghao Yang	Univ. of Science and Technology of China

Kehao Shi	Univ. of Science and Technology of China
Yunbo Zhao	Univ. of Science and Technology of China
Yu Kang	Univ. of Science and Technology of China
Zhenyi Xu	Univ. of Science and Technology of China
15:14-15:22	C5.14
622 <i>Unet-ViT: A transformer-enhanced U-Net for PCB component segmentation</i>	
Yingjie Li	Anhui Univ.
Kehao Shi	Hefei Comprehensive National Science Center
Yu Kang	Hefei Comprehensive National Science Center
Zhenyi Xu	Auhui Univ. of Technology
15:22-15:30	C5.15
1438 <i>Physics-informed neural network for outlet pressure prediction of the triplex pump</i>	
Yuhang Cai	Anhui Univ.
Kehao Shi	Hefei Comprehensive National Science Center
Yu Kang	Hefei Comprehensive National Science Center
Zhenyi Xu	Auhui Univ. of Technology
C6 2nd Floor Nanning Room3	
Fusion GNC 2 层 南宁厅 3	
Chair: Yiqun Dong	
13:30-13:38	C6.1
1250 大规模目标场景下动态缺失传感器量测中的鲁棒航迹关联	
Lixin Han	Fudan Univ.
Jun Yao	Fudan Univ.
Pengyu Luo	Fudan Univ.
Yiqun Dong	Fudan Univ.
13:38-13:46	C6.2
1206 <i>Study on the reconstruction of wing surface pressure fields based on sparse pressure data</i>	
Yibo Zhao	Beihang Univ.
Yichu chen	Beihang Univ.
Tianxiang Hu	Beihang Univ.
13:46-13:54	C6.3
1258 <i>Symplectic dynamic Hamiltonian pose estimator</i>	
Bohuan Xue	South China Normal Univ.
Xiaoyu Tang	South China Normal Univ.
Jintao Cheng	The Hong Kong Univ. of Science and Technology
13:54-14:02	C6.4
410 <i>A multi-sensor SLAM integrating radar, LiDAR, IMU, and camera via visual-residual gating</i>	
Wenxuan Ji	Beihang Univ.
Jin Xiao	Beihang Univ.
Xiaoguang Hu	Beihang Univ.
Yu Huang	China Fire and Rescue Institute
Jiaqi Shi	Beihang Univ.
Jiajia Zhao	Beijing Institute of mechanical and electrical engineering

Chuang Song	Beijing Institute of mechanical and electrical engineering
Zichong Jia	Beihang Univ.
Zijie Luo	Beihang Univ.
14:02-14:10	C6.5
469 <i>Finite-time complementary filtering for aircraft attitude estimation: a comprehensive review of methods and challenges</i>	
Linan Wang	Beijing Institute of Technology
Zhuo Liu	Southeast Univ.
Meng Zhang	Southeast Univ.
Jing Nie	Beijing Institute of Technology
14:10-14:18	C6.6
1681 <i>Reliability-aware RGB-LiDAR semantic mapping with adaptive voxel update</i>	
Kunpeng Tu	The Hong Kong Univ. of Science and Technology (Guangzhou)
Han Zhang	The Hong Kong Univ. of Science and Technology (Guangzhou)
Changhao Chen	The Hong Kong Univ. of Science and Technology (Guangzhou)
14:18-14:26	C6.7
1036 <i>Multi-constellation GNSS robust positioning using truncated FDE of multiple faults</i>	
Shengying Li	Southeast Univ.
Penghui Liu	Southeast Univ.
Qian Meng	Southeast Univ.
Yaxuan Cai	Southeast Univ.
Fanchen Meng	Beijing Institute of Aerospace Control Devices
Kai Guo	Beihang Univ.
14:26-14:34	C6.8
504 基于 UWB/气压计复合因子的共面无人机组群鲁棒协同定位方法	
Tianxyu Wu	Nanjing Univ. of Aeronautics and Astronautics
Ling Zhang	Nanjing Univ. of Aeronautics and Astronautics
Chenfa Shi	Nanjing Univ. of Aeronautics and Astronautics
Yilin Yang	Nanjing Univ. of Aeronautics and Astronautics
Zihao Jin	Nanjing Univ. of Aeronautics and Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics and Astronautics
14:34-14:42	C6.9
541 <i>MMA-DODT: Multi-model adaptive dynamic object detection and tracking</i>	
Tao Shi	Guilin Univ. of Electronic Technology
Xiaohuan Li	Guilin Univ. of Electronic Technology
Yichao Tang	Guilin Univ. of Electronic Technology
Zhecheng Song	Guilin Univ. of Electronic Technology
Weilin chen	Guilin Univ. of Electronic Technology
Junxi Tian	Guilin Univ. of Electronic Technology
14:42-14:50	C6.10
1696 <i>Improving atom trapping performance of grating magneto-optical trap chips using flat-top beam</i>	

Yuchen Wang	AVIC Xi'an Flight Automatic Control Research Institute
Weiqi Chen	AVIC Xi'an Flight Automatic Control Research Institute
Kexiao Niu	AVIC Xi'an Flight Automatic Control Research Institute
Yuanzheng Liu	AVIC Xi'an Flight Automatic Control Research Institute
14:50-14:58	C6.11
328 面向余度传感器的多特征自适应融合方法实践	
Tong Guo	AVIC Chengdu Aircraft Design and Research Institute
Lin Yang	AVIC Chengdu Aircraft Design and Research Institute
Chenggang Tao	AVIC Chengdu Aircraft Design and Research Institute
Jinliang Bian	AVIC Chengdu Aircraft Design and Research Institute
Junquan Wang	Northwestern Polytechnical Univ.
Rui Zhang	Northwestern Polytechnical Univ.
14:58-15:06	C6.12
404 <i>Advanced sensor-based rotor position detection and its application in permanent magnet motors</i>	
Wenjing Cui	AVIC Qing'an Group Co., Ltd.
Xiaohui Song	AVIC Qing'an Group Co., Ltd.
Bo Wang	AVIC Qing'an Group Co., Ltd.
15:06-15:14	C6.13
1598 <i>Simulation method for airworthiness verification of FMS integrated navigation based on aerodynamic-navigation decoupling</i>	
Yilin Chen	Nanjing Univ. of Aeronautics and Astronautics
Rongbing Li	Nanjing Univ. of Aeronautics and Astronautics
Zhengcheng Hou	Nanjing Univ. of Aeronautics and Astronautics
15:14-15:22	C6.14
1656 <i>Safety analysis of management-technology systems: a scenario-driven case study of the Boeing 737 MAX 8 accidents</i>	
Xinran Chang	Tsinghua Univ.
Mengjin Qu	Tsinghua Univ.
Qing Li	Tsinghua Univ.
C7 2nd Floor Longsheng Room	
Perception GNC 2 层 龙胜厅	
Chair: Shike Long	
13:30-13:38	C7.1
1325 <i>TS-YOLO for wind turbine blade defect detection</i>	
Meiyong Wang	Guangxi Univ.
Yongjun Wang	Guilin Univ. of Aerospace Technology
Maged Al-Barashi	Guilin Univ. of Aerospace Technology
13:38-13:46	C7.2
741 <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
Heran Wang	Shanghai W-Ibada High Tech. Group Co., Ltd.
13:46-13:54	C7.3
979 <i>Attitude control method for multirotor unmanned aerial vehicles based on adaptive sliding mode control and a fractional-order extended state observer</i>	
Daofu He	Guilin Univ. of Electronic Technology
Shanlin Sun	Guilin Univ. of Aerospace Technology
Shike Long	Guilin Univ. of Aerospace Technology
13:54-14:02	C7.4
1160 <i>Informed-RRT*-based path planning with an improved artificial potential field and an adaptive guidance weight strategy</i>	
Shilong Liu	Guilin Univ. of Electronic Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
Maged Al-Barashi	Guilin Univ. of Aerospace Technology
Lili Lu	Guilin Univ. of Aerospace Technology
14:02-14:10	C7.5
1184 <i>Research on an RS-YOLO-based UAV landing target detection method</i>	
Qiang Li	Guilin Univ. of Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
Chun Yao Zhang	Guilin Univ. of Technology
14:10-14:18	C7.6
1211 <i>Safe landing of a UAV based on MPC and high-order control barrier functionse</i>	
Chun Yao Zhang	Guilin Univ. of Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
Qiang Li	Guilin Univ. of Technology
Maged Al-Barashi	Guilin Univ. of Aerospace Technology
14:18-14:26	C7.7
1425 <i>PCA-Lasso based feature modeling and cholesterol prediction using bioimpedance spectroscopy</i>	
Haoyue Xue	Guilin Univ. of Aerospace Technology
Chuanpei Xu	Guilin Univ. of Electronic Technology
Jianbo Ji	Guilin Univ. of Aerospace Technology
Zhen Zhang	Guilin Univ. of Aerospace Technology
Peng Tang	Guilin Univ. of Electronic Technology
14:26-14:34	C7.8
1429 <i>Predefined-time trajectory tracking control for quadrotor circumnavigation of dynamic ground targets</i>	
Hua Tan	Guilin Univ. of Aerospace Technology
Xinchen Kang	Guilin Univ. of Aerospace Technology
Shike Long	Guilin Univ. of Aerospace technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
14:34-14:42	C7.9
1451 基于双期相图像特征适配迁移网络的胃肿瘤分类方法	
Yu Liu	Guilin Univ. of Aerospace Technology
Liebin Huang	Jiangmen Central Hospital
Qinxian Chen	Jiangmen Central Hospital
Huimin Xue	Jiangmen Central Hospital
Yunde Li	Guilin Univ. of Aerospace Technology
Wansheng Long	Jiangmen Central Hospital
Bao Feng	Guilin Univ. of Aerospace Technology

14:42-14:50	C7.10
1305 <i>Fault estimation and fault-tolerant control for control surface electromechanical actuators subject to effectiveness degradation</i>	
Tianyou Han	National Univ. of Defense Technology
Bowen Xu	National Univ. of Defense Technology
Weiqi Yang	National Univ. of Defense Technology
Xianyu Wu	National Univ. of Defense Technology
14:50-14:58	C7.11
1465 <i>Talent cultivation for aerospace GNC: Research on teaching reform of virtual-real complementary and multidimensional symbiotic surface inspection technology</i>	
Bo Zhang	Guilin Univ. of Aerospace Technology
Tianlong Huo	Guilin Univ. of Aerospace Technology
Yu Luo	Guilin Univ. of Aerospace Technology
Jinghua Li	Guilin Univ. of Aerospace Technology
Nila Lan	Guilin Univ. of Aerospace Technology
14:58-15:06	C7.12
1472 <i>Whirl flutter analysis in different flight modes of tiltrotor aircraft</i>	
Mingchun Wang	Guangdong Univ. of Technology
Ruilan Chang	Guilin Univ. of Aerospace Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
15:06-15:14	C7.13
1491 <i>Infrared information-assisted low-light image enhancement and fusion</i>	
Shengjia An	Guilin Univ. of Electronic Technology
Zhi Li	Guilin Univ. of Electronic Technology
Shaorong Zhang	Guilin Univ. of Aerospace Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
Bineng Zhong	Guangxi Normal Univ.
Heng Li	Guangxi Beitou IT Innovation Technology Investment Group Co., Ltd.
15:14-15:22	C7.14
1521 <i>A novel method based on non-convex log regularization and fisher discriminant criterion constraint for motor imagery brain-computer interface decoding</i>	
Benxin Zhang	Guilin Univ. of Electronic Technology
Yan Dong	Guilin Univ. of Electronic Technology
Yuanpeng Liang	Guilin Univ. of Electronic Technology
Yi Li	Guilin Univ. of Electronic Technology
Tingshun Jia	Guilin Univ. of Electronic Technology
Yiru Guo	Guilin Univ. of Electronic Technology
Shaorong Zhang	Guilin Univ. of Aerospace Technology
15:22-15:30	C7.15
1526 <i>FTAWB: An interactive fault tree analysis workbench for efficient aerospace system safety assessment</i>	
Wei Luo	Guilin Univ. of Electronic Technology
C8 2nd Floor Guilin Room 1 Cross-domain GNC 2层 桂林厅 1	
Chair: Qiang Shen	
13:30-13:38	C8.1
347 <i>Generative-estimation synergy via bayesian reshaping of semantic priors for autonomous perception</i>	
Ming Lei	Shanghai Jiao Tong Univ.
Shufan Wu	Shanghai Jiao Tong Univ.

13:38-13:46	C8.2
348 <i>Structured semantic priors-based robust multi-object tracking in cislunar environments</i>	
Ming Lei	Shanghai Jiao Tong Univ.
Shufan Wu	Shanghai Jiao Tong Univ.
13:46-13:54	C8.3
455 <i>3D Gaussian splatting reconstruction for vision-aided spacecraft inspection</i>	
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 <i>Anchor-point based Earth-Moon transfer trajectory design</i>	
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 <i>Research on a named entity recognition scheme for aerospace guidance, navigation, and control</i>	
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 <i>An intelligent star identification algorithm based on coarse-to-fine hierarchical matching</i>	
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 <i>SG-GRNet: Anti-interference and morphological perception detection algorithm for complex space station scenarios</i>	
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 <i>An improved Votenet for 3D object detection in point clouds for space station scenarios</i>	
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 <i>A high-precision visual localization and semantic-enhanced mapping method for dynamic space environments</i>	
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 <i>Research on small target detection for spacecraft in complex space backgrounds</i>	

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 <i>SGC-Net: semantic-guided cross-modal modeling for RGB-D semantic segmentation in spaceborne environments</i>	
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 <i>Plane point set registration method for long-distance targets</i>	
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 <i>Evolution strategy-based minimum-fuel transfer trajectory in the Earth-Moon three-body system</i>	
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	
Chair: 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 <i>Coupling effect between capacitive displacement sensing unit and feedback control unit</i>	
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		Technology
Fan Zhang	Sun Yat-sen Univ.	Zhihao Liu	Huazhong Univ. of Science and
Qianyun Zhang	Shanghai Jiao Tong Univ.		Technology
Jinjin Xie	Southeast Univ.	Cheng Ma	Huazhong Univ. of Science and
Yi Xu	Shanghai Institute of Satellite		Technology
	Engineering	Shaobo Qu	Huazhong Univ. of Science and
13:54-14:02	C9.4		Technology
412 <i>Design and implementation of a highly stable carrier generation and amplitude-phase control system</i>			
Jiawen Lan	Huazhong Univ. of Science and	Ming Hu	Huazhong Univ. of Science and
	Technology		Technology
Jinhong Zou	Huazhong Univ. of Science and	Yanzheng Bai	Huazhong Univ. of Science and
	Technology		Technology
Zhiwen Xiao	Huazhong Univ. of Science and	Zebing Zhou	Huazhong Univ. of Science and
	Technology		Technology
Liang Lang	Huazhong Univ. of Science and	14:34-14:42	C9.9
	Technology	1087 <i>空间惯性传感器静电反馈控制系统设计与测试</i>	
Quanliang Huang	Huazhong Univ. of Science and	Hao Xu	Shanghai Jiao Tong Univ.
	Technology	Qianyun Zhang	Shanghai Jiao Tong Univ.
Jia He	China Ship Development and	Shufan Wu	Shanghai Jiao Tong Univ.
	Design Center	14:42-14:50	C9.10
Liangqi Gui	Huazhong Univ. of Science and	1178 <i>Long short-term memory-based sliding mode recovery control strategy for drag-free satellites under micrometeoroid impacts</i>	
	Technology	Ya Wen	Sun Yat-sen Univ.
14:02-14:10	C9.5	Dexuan Zhang	Sun Yat-sen Univ.
873 <i>Stability analysis of the mode switching from accelerometer mode to drag-free mode</i>			
Peng Zhou	Sun Yat-sen Univ.	Hongyin Li	Sun Yat-sen Univ.
Sikai Miao	Sun Yat-sen Univ.	Guoying Zhao	Sun Yat-sen Univ.
Jiaxin Jiang	Sun Yat-sen Univ.	Junxiang Lian	Sun Yat-sen Univ.
Junxiang Lian	Sun Yat-sen Univ.	14:50-14:58	C9.11
Hongyin Li	Sun Yat-sen Univ.	1225 <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>	
Guoying Zhao	Sun Yat-sen Univ.	Mingze Chen	Nanjing Univ. of Science and Technology
14:10-14:18	C9.6	Baocang Gao	Nanjing Univ. of Science and Technology
895 <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>			
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.	14:58-15:06	C9.12
Hongyin Li	Sun Yat-sen Univ.	1284 <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
14:18-14:26	C9.7	Qiang Shen	Shanghai Jiao Tong Univ.
921 <i>Reliability improvement study of parallel reference sources for space inertial sensor driving circuits</i>			
Zhe Han	Northeast Forestry Univ.	Huajun Gong	Nanjing Univ. of Science and Technology
Jiawei Zhang	Northeast Forestry Univ.	Ju Jiang	Nanjing Univ. of Science and Technology
Qinbo Ma	Northeast Forestry Univ.	Shufan Wu	Shanghai Jiao Tong Univ.
Chong Mo	Northeast Forestry Univ.	15:06-15:14	C9.13
Liang Chen	Northeast Forestry Univ.	1382 <i>柔性航天器编队分段一致性自适应重指向控制</i>	
Honghui Gao	Northeast Forestry Univ.	Xinglong Zhang	Nanjing Univ. of Science and Technology
Ming Hu	Huazhong Univ. of Science and	Ziyuan Ma	Suzhou Univ. of Science and Technology
	Technology	Haobo Wen	Nanjing Univ. of Science and Technology
Jianping Huang	Northeast Forestry Univ.	Xiaoyun Sun	Nanjing Univ. of Science and Technology
14:26-14:34	C9.8	Xinhua Wang	Nanjing Univ. of Science and Technology
1072 <i>On-Ground test method, technology and application of space inertial sensor based on semiphsical simulation</i>			
Yusheng Jie	Huazhong Univ. of Science and	15:14-15:22	C9.14
		1704 <i>Multibody dynamics and visual simulation of TianQin satellites under typical perturbations</i>	
		Jiaxin Jiang	Sun Yat-sen Univ
		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
1256 Fault tree analysis for safety assessment of civil aircraft high-lift system	
Qing Xu	COMAC Shanghai Aircraft Design and Research Institute
C10	2nd Floor VIP Room 2
Adaptive GNC	2 层 贵宾厅 2
Chair: Xiaofeng He	
13:30-13:38	C10.1
1006 Aircraft control method based on four-mode hybrid control and TD3	
Yongliang Hu	Northwestern Polytechnical Univ.
Jingping Shi	Northwestern Polytechnical Univ.
Yongxi Lyu	Northwestern Polytechnical Univ.
13:38-13:46	C10.2
355 Design of a heterogeneous UAV swarm command and control test system based on a distributed architecture	
Yunkai Ma	Xi'an Modern Control Technology Research Institute
Lisha Yao	Xi'an Modern Control Technology Research Institute
Rizhong Wang	Xi'an Modern Control Technology Research Institute
Haotian Shi	Xi'an Modern Control Technology Research Institute
Xiaowen Xi	Xi'an Modern Control Technology Research Institute
Ping Li	Xi'an Modern Control Technology Research Institute
13:46-13:54	C10.3
403 Research on predefined-time incremental sliding mode control for wing-damaged tailless aircraft	
Kecheng Li	Northwestern Polytechnical Univ.
Qun Zuo	Xi'an Modern Control Technology Research Institute
Yuewen Wang	Northwestern Polytechnical Univ.
Xiaoxiong Liu	Northwestern Polytechnical Univ.
13:54-14:02	C10.4
437 Research on preview incremental nonlinear dynamic inversion for flight trajectory control	
Xiaochen Lyu	Northwestern Polytechnical Univ.
Shipeng Wang	Northwestern Polytechnical Univ.
Yongxi Lyu	Northwestern Polytechnical Univ.
Jingping Shi	Northwestern Polytechnical Univ.
14:02-14:10	C10.5
438 Dynamic transition corridor and optimal transition trajectory for VTOL aircraft	
Qi Zhu	Northwestern Polytechnical Univ.
Jingping Shi	Northwestern Polytechnical Univ.
Yongxi Lyu	Northwestern Polytechnical Univ.
Xiaobo Qu	Northwestern Polytechnical Univ.
Fuxiang Qiao	AVIC Xi'an Flight Automatic Control Research Institute
Shaomin He	AVIC Xi'an Flight Automatic Control Research Institute
14:10-14:18	C10.6

728 A two-stage calibration method for microarray skylight polarized compass using second-harmonic decomposition

Lianwei Teng	National Univ. of Defense Technology
Chen Fan	National Univ. of Defense Technology
Tongwei Ma	National Univ. of Defense Technology
Sikai Wu	National Univ. of Defense Technology
Yangfan Xu	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology
Lilian Zhang	National Univ. of Defense Technology

14:18-14:26 C10.7

891 Improving end-to-end visual odometry with differentiable multi-frame pose adjustment

Pengdong Wu	National Univ. of Defense Technology
Lilian Zhang	National Univ. of Defense Technology
Jun Mao	National Univ. of Defense Technology
Yangfan Xu	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology

14:26-14:34 C10.8

902 An adaptive dual-stream infrared visual-inertial odometry based on cross-attention fusion

Ning Han	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology
Yangfan Xu	National Univ. of Defense Technology
Jun Mao	National Univ. of Defense Technology
Lilian Zhang	National Univ. of Defense Technology

14:34-14:42 C10.9

1226 Adaptive-weighting tightly coupled mmWave radar/inertial integrated navigation via point-wise radial-velocity confidence assessment

Yunmu Duan	National Univ. of Defense Technology
Ruiguang He	National Univ. of Defense Technology
Zixuan Xie	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology
Lilian Zhang	National Univ. of Defense Technology
Jun Mao	National Univ. of Defense Technology

14:42-14:50 C10.10

1262 An improved UAV swarm cooperative navigation algorithm with robust low-rank distance matrix recovery in GNSS-denied environments

You He	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology
Xincan Luo	National Univ. of Defense Technology
Jun Mao	National Univ. of Defense Technology
Lilian Zhang	National Univ. of Defense Technology

14:50-14:58 C10.11

1286 An inertial-ranging integrated cooperative navigation approach with ranging compensation during bidirectional ranging

Qihao Hu	National Univ. of Defense Technology
Xincan Luo	National Univ. of Defense Technology
Zhonghai Cheng	National Univ. of Defense Technology
Xiaofeng He	National Univ. of Defense Technology
Jun Mao	National Univ. of Defense Technology

14:58-15:06 C10.12

1299 Consensus regrounding: bounded-state streaming visual geometry with frozen predictors

Tianci Liu	National Univ. of Defense Technology
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Lilian Zhang	National Univ. of Defense Technology	Guo Lin	Univ. of Electronic Science and Technology of China
Yangfan Xu	National Univ. of Defense Technology	Tianjiao Liang	AVIC Chengdu Aircraft Design and Research Institute
Jun Mao	National Univ. of Defense Technology	Xiaoming Chen	AVIC Chengdu Aircraft Design and Research Institute
15:06-15:14	C10.13	Weihaio Li	Univ. of Electronic Science and Technology of China
1554 Robust forward-looking sonar SLAM via location-aware ICP and geometry-aware constraint factors		Mengji Shi	Univ. of Electronic Science and Technology of China
Xinyao Wei	Harbin Engineering Univ.	Kaiyu Qin	Univ. of Electronic Science and Technology of China
Zhongben Zhu	Harbin Engineering Univ.	13:30-15:30	C12.4
Xiaokai Mu	Harbin Engineering Univ.	1588 Comprehensive evaluation and analysis of planned paths for ROVs under different deployment positions	
Hongde Qin	Harbin Engineering Univ.	Yanbin Teng	Taihu Laboratory of Deepsea Technological Science
15:14-15:22	C10.14	Lan Wu	Taihu Laboratory of Deepsea Technological Science
1635 Wave distortion restoration-based orientation methodology for underwater polarization navigation		Yali Fan	Taihu Laboratory of Deepsea Technological Science
Daizhuo Huang	Beijing Institute of Technology	13:30-15:30	C12.5
Xia wang	Beijing Institute of Technology	1589 Evolution-based optimization for carrier-based aircraft arrangement on an aircraft carrier flight deck	
Yuyang Li	Beijing Institute of Technology	Yu Wu	Univ. of Electronic Science and Technology of China
15:22-15:30	C10.15	Jiaxin Yang	Univ. of Electronic Science and Technology of China
1637 Histogram of the orientation distribution of the center-weighted descriptor for multi-modal remote sensing image matching		Zehao Xie	AVIC Chengdu Aircraft Design and Research Institute
Zhirui Zhang	Beijing Institute of Technology	Chuanxiang Zhou	AVIC Chengdu Aircraft Design and Research Institute
Xia Wang	Beijing Institute of Technology	Boxian Lin	Univ. of Electronic Science and Technology of China
Fengwen Mi	Beijing Institute of Technology	Weihaio Li	Univ. of Electronic Science and Technology of China
C12	2nd Floor Aisle	Mengji Shi	Univ. of Electronic Science and Technology of China
Poster Session	2 层连廊厅	13:30-15:30	C12.6
Chair: Yuming Meng		1599 冗余自由度空间机械臂建模分析与运动控制	
13:30-15:30	C12.1	Jiashuo Zhang	Beihang Univ.
1238 An improved ant colony algorithm-based method for unmanned aerial vehicle obstacle avoidance path planning		Xinying Yu	Beihang Univ.
Yifei Pei	AVIC Xi'an Flight Automatic Control Research Institute	Hankai Zhao	Beihang Univ.
Pu Chen	AVIC Xi'an Flight Automatic Control Research Institute	Xiang Lin	Beihang Univ.
Guoliang Yang	AVIC Xi'an Flight Automatic Control Research Institute	Zichen Guo	Beihang Univ.
Jinhong Zhang	AVIC Xi'an Flight Automatic Control Research Institute	Shengqi Yang	Beihang Univ.
Ze Zhang	AVIC Xi'an Flight Automatic Control Research Institute	Xiao Xue	Beihang Univ.
Mengxue Nie	AVIC Xi'an Flight Automatic Control Research Institute	Jiaqing He	Beihang Univ.
13:30-15:30	C12.2	Rui Cheng	Beihang Univ.
1450 面向区域目标的在线启发式多星协同调度方法		Haichao Gui	Beihang Univ.
Xinxi Zeng	Nanjing Univ. of Aeronautics and Astronautics	13:30-15:30	C12.7
Dianyuan Zhang	Nanjing Univ. of Aeronautics and Astronautics	1617 Design and implementation of ROS-based food delivery robot with ICP secondary positioning	
Xvxing Huang	Nanjing Univ. of Aeronautics and Astronautics	Hongfeng Zhu	Jingchu Univ. of Technology
Shuang Li	Nanjing Univ. of Aeronautics and Astronautics	Kejun Zhang	Jingchu Univ. of Technology
13:30-15:30	C12.3	Xue Chen	Jingchu Univ. of Technology
1555 Path planning for carrier aircraft hangar dispatch under towbarless towing kinematic constraints		Jingyi Huang	Jingchu Univ. of Technology
Yu Wu	Univ. of Electronic Science and Technology of China		

Jing Luo	Jingchu Univ. of Technology
13:30-15:30	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.
13:30-15:30	C12.9
947	<i>A dynamic UAV target allocation method based on a feasibility matrix</i>
Siyu Tao	Beihang Univ.
Chenyu Wang	Beihang Univ.
Yunjie Wu	Beihang Univ.
13:30-15:30	C12.10
467	<i>Automatic ground collision avoidance control method based on explicit model command trajectory prediction</i>
Furui Yu	AVIC Shenyang Aircraft Design and Research Institute
Hao Liu	AVIC Shenyang Aircraft Design and Research Institute
Jiawei Yang	AVIC Shenyang Aircraft Design and Research Institute
Shili Dong	AVIC Shenyang Aircraft Design and Research Institute
Fangliu Jin	AVIC Shenyang Aircraft Design and Research Institute
13:30-15:30	C12.11
613	<i>Variable-parameter impedance control based on the improved sparrow search algorithm</i>
Zhengyu Qu	Northwestern Polytechnical Univ.
Zicheng Fan	Northwestern Polytechnical Univ.
Jingzhou Gong	Northwestern Polytechnical Univ.
Yaohong Qu	Northwestern Polytechnical Univ.
13:30-15:30	C12.12
646	<i>A feedback-based trajectory prediction and collision correction estimation method for the ground collision avoidance system</i>
Zhigang Luo	Aviation Key Laboratory of Science and Technology on Flight Control
Ke Yu	Aviation Key Laboratory of Science and Technology on Flight Control
Chao Jiang	Aviation Key Laboratory of Science and Technology on Flight Control
Xiaofeng Sun	Aviation Key Laboratory of Science and Technology on Flight Control
Longzhen Hu	Aviation Key Laboratory of Science and Technology on Flight Control
13:30-15:30	C12.13
775	<i>Research on safety risks of helicopter flight testing</i>
Huiwen Han	Chinese Flight Test Establishment of AVIC
13:30-15:30	C12.14
878	基于面部特征融合的飞行员疲劳检测算法
Genchao Liu	Beihang Univ.
Kun Wu	Beihang Univ.
Liucheng Xu	Beihang Univ.
Wei Lan	Beihang Univ.

13:30-15:30	C12.15
945	<i>A method for determining RWS warning threshold curve by integrating aircraft performance and recovery strategies</i>
Jiayi Wang	Northwestern Polytechnical Univ.
Yaming Xing	Northwestern Polytechnical Univ.
Guangwen Li	Northwestern Polytechnical Univ.
Shaobo Zhai	Northwestern Polytechnical Univ.
13:30-15:30	C12.16
1077	<i>Identification of Key Nodes in Flight Conflicts for UAV Swarms Based on Complex Networks</i>
Ziyan Zhang	Air Force Engineering Univ.
Xiaolong Liang	Air Force Engineering Univ.
Aoyu Zheng	Air Force Engineering Univ.
Han Wang	Air Force Engineering Univ.
Zhongjiacen	Air Force Engineering Univ.
Zhiyang Zhang	Air Force Engineering Univ.
Shuangyan Chen	Air Force Engineering Univ.
Yuyan Xiao	Air Force Engineering Univ.
Huanyang Lou	Air Force Engineering Univ.
13:30-15:30	C12.17
1384	<i>Fuzzy logic decision-making and neural network incremental dynamic inversion-based attitude control of an aircraft with pilot mishandling</i>
Qian Zhang	Shanghai Jiao Tong Univ.
Weizhi Lyu	Shanghai Jiao Tong Univ.
Congjie Yang	Shanghai Jiao Tong Univ.
Jiaxin Chen	Shanghai Jiao Tong Univ.
Shumin Pu	Shanghai Jiao Tong Univ.
Shiqian Liu	Shanghai Jiao Tong Univ.
Lianyu Guo	Shanghai Jiao Tong Univ.
Yunxin Meng	Shanghai Jiao Tong Univ.
13:30-15:30	C12.18
1685	<i>Input-compatible flight-envelope protection of underactuated hypersonic vehicles with asymmetric actuator saturation</i>
Jinlu Dong	Shanghai Jiao Tong Univ.
Mingdong Hou	Shanghai Jiao Tong Univ.
Renming Yang	Shanghai Jiao Tong Univ.
13:30-15:30	C12.19
126	<i>Research on the progress and supporting technologies of cross domain unmanned aerial vehicle cluster</i>
Mingqiu Ren	Air Force Early Warning Academy
Bingqie Wang	Air Force Early Warning Academy
Yi Leng	Air Force Early Warning Academy
13:30-15:30	C12.20
505	<i>Distributed cooperative guidance for UAVs simultaneous arrival with collision avoidance</i>
Hailong Yan	Northwestern Polytechnical Univ.
Zhiwei Zhang	Aerospace Information Research Institute, CAS
Hongjun Chu	Hangzhou Dianzi Univ.
Zhe Yu	Xidian Univ.
13:30-15:30	C12.21
727	<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.	Tongyang Chen	AVIC Xi'an Flight Automatic Control Research Institute
Yuchen Wang	Beijing Institute of Technology	Hang Shu	AVIC Xi'an Flight Automatic Control Research Institute
Sixing Zhang	Beijing Information Science and Technology Univ.		
Junfang Fan	Beijing Information Science and Technology Univ.		
13:30-15:30	C12.22	13:30-15:30	C12.26
815 <i>Trajectory reconstruction of projectile based on fixed interval smoothing algorithm</i>		1217 <i>基于时域包络的半球谐振子振动参数辨识方法</i>	
Kai Chen	Northwestern Polytechnical Univ.	Yucheng Zhu	Beihang Univ.
Yongchao Wang	Northwestern Polytechnical Univ.	Junlin Luo	Beihang Univ.
Pengli Wu	Northwestern Polytechnical Univ.	Tengfei	Beihang Univ.
Sicheng Yang	Northwestern Polytechnical Univ.	Ang Li	Beihang Univ.
Jinlong Song	Naval Univ. of Engineering	Shilei Zhang	Beihang Univ.
Xiangping Li	Naval Univ. of Engineering	Kaifei Li	Beihang Univ.
Chengzhi Zeng	Northwestern Polytechnical Univ.	Xiaobin Xu	Beihang Univ.
13:30-15:30	C12.23	13:30-15:30	C12.27
962 <i>TVGDO-MPC for quadrotor trajectory tracking under wind disturbances</i>		1645 <i>PSO-based adaptive covariance optimized Kalman filter for gyroscope bias fusion estimation and noise suppression</i>	
Yifei Zhao	Beijing Institute of Technology	Chenlu Li	Xi'an Microelectronics Technology Institute
Yong Xu	Beijing Institute of Technology	Hui Wang	Xi'an Microelectronics Technology Institute
Borui Sun	Beijing Institute of Technology	Long Wang	Xi'an Microelectronics Technology Institute
Xuan Wen	Beijing Institute of Technology	Liyang Zhou	Xi'an Microelectronics Technology Institute
Xiong Chen	Beijing Institute of Technology	Hui Fang	Xi'an Microelectronics Technology Institute
Ying Liu	Zhongjike (Beijing) Vehicle Testing Engineering	13:30-15:30	C12.28
Yinghao Chen	Zhongjike (Beijing) Vehicle Testing Engineering	173 <i>Research on error source analysis and precision enhancement methodology for spaceborne visual sensors in relative measurement</i>	
Chengran Qi	Beijing Institute of Technology	Xingtian Liu	Beijing Institute of Control Engineering
13:30-15:30	C12.24	Qihai Liu	Beijing Institute of Control Engineering
771 <i>Simulation analysis of light-pulse atom interferometers with continuous atomic beams: a framework for robust dynamic environment applications</i>		Jianmin Zhou	Beijing Institute of Control Engineering
Nongchao Xin	Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing	Jie Bao	Beijing Institute of Control Engineering
Xiaodong Qu	Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing	Yunfei Xu	Beijing Institute of Control Engineering
Shengjun Wang	Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing	Tao Huang	Beijing Institute of Control Engineering
Yi Zhang	Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing	13:30-15:30	C12.29
Zhiqiang Yao	Aviation Key Laboratory of Science and Technology on Quantum Sensing and Positioning Navigation Timing	733 <i>Research on atmospheric parameter estimation method for re-entry phase based on dual-frequency EKF fusion</i>	
13:30-15:30	C12.25	Yu Wang	Northwestern Polytechnical Univ.
880 <i>Method for reducing the start-up time of whole-angle mode hemispherical resonator gyroscope based on BP neural network</i>		Xiaoye Bi	Shenyang Aircraft Design and Research Institute
Sen Yang	AVIC Xi'an Flight Automatic Control Research Institute	Jun Liu	Shenyang Aircraft Design and Research Institute
Shengjie Ma	AVIC Xi'an Flight Automatic Control Research Institute	Yueming Zhu	Shenyang Aircraft Design and Research Institute
		Shangyin Ren	Shenyang Aircraft Design and Research Institute
		13:30-15:30	C12.30
		893 <i>Multi-parameter calibration for liquid circular angular accelerometer based on extended Kalman filter</i>	
		Zitian Xiong	Beijing Institute of Technology
		Meiling Wang	Beijing Institute of Technology
		Chaoyang Zhai	Beijing Institute of Technology
		Zhiheng Xiao	Beijing Institute of Technology
		Zixian Zu	Beijing Institute of Technology
		Renjie Li	Beijing Institute of Technology
		13:30-15:30	C12.31
		916 <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
13:30-15:30	C12.32
958 <i>Multi-sensor fusion for simultaneous localization and mapping of indoor robotic vacuum cleaners</i>	
Yushun Dong	Xiamen Univ.
Boyu Chen	Xiamen Univ.
Mingdi Niu	Xiamen Univ.
13:30-15:30	C12.33
1069 <i>DEM-assisted calibration and registration of airborne mmWave radar and camera</i>	
Shaojie Lv	Chinese People's Liberation Army
Yijie Huang	Shanghai Jiao Tong Univ.
Xianhao Huang	Shanghai Jiao Tong Univ.
Junguo Lu	Shanghai Jiao Tong Univ.
Qinghao Zhang	Shanghai Jiao Tong Univ.
13:30-15:30	C12.34
1099 <i>A survey on multi-source heterogeneous data fusion methods for target detection</i>	
Xiaoming Guo	National Key Laboratory of Near-space Physics
Wenxia Huo	National Key Laboratory of Near-space Physics
Lin Chen	National Key Laboratory of Near-space Physics
Shouyuan Qian	National Key Laboratory of Near-space Physics
13:30-15:30	C12.35
1263 <i>High-fidelity orbital reconstruction: a physics-grounded simulation and two-phase progressive strategy for space objects</i>	
Jiaqing Chen	Innovation Academy for Microsatellites, CAS
Xinyun Chen	Innovation Academy for Microsatellites, CAS
Tianshu Wang	Tianjin Univ.
Yonghe Zhang	Innovation Academy for Microsatellites, CAS
Linzhen Tang	Innovation Academy for Microsatellites, CAS
Zibing Qin	Aether Space (Shanghai) Technology Co., Ltd
Chengyu Ma	Innovation Academy for Microsatellites, CAS
13:30-15:30	C12.36
1621 <i>Aligning and fusing SAR and optical images with correlation volume for land cover classification</i>	
Changlin Liu	South China Univ. of Technology
Xinglun Zhou	South China Univ. of Technology
Yubo Wang	South China Univ. of Technology
Zijie Li	South China Univ. of Technology
Wei Fu	South China Univ. of Technology
Fuchun Liu	South China Univ. of Technology
13:30-15:30	C12.37
127 <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>	
Pengfu Lu	Beihang Univ.

Shilei Zhang	Beihang Univ.
Xiaobin Xu	Beihang Univ.
Ang Li	Beihang Univ.
Junlin Luo	Beihang Univ.
13:30-15:30	C12.38
980 <i>Low noise MEMS gyroscope detection circuit based on differential structured synchronous integral demodulator</i>	
Pingtailei Lv	AVIC Xi'an Flight Automatic Control Research Institute
Jian Wang	AVIC Xi'an Flight Automatic Control Research Institute
Wenhong Li	AVIC Xi'an Flight Automatic Control Research Institute
Yuzhe Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Jiawei Song	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	C12.39
1105 <i>Unified linearized evaluation of sigma-delta digital closed-loop architectures for robust MEMS gyroscope design</i>	
Yuzhe Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Jian Wang	AVIC Xi'an Flight Automatic Control Research Institute
Wenhong Li	AVIC Xi'an Flight Automatic Control Research Institute
Pingtailei Lv	AVIC Xi'an Flight Automatic Control Research Institute
Jiawei Song	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	C12.40
1165 <i>A chip-scale thermal control and bias compensation method for butterfly MEMS gyroscopes</i>	
Hongfu Sun	National Univ. of Defense Technology
Yang Zhang	National Univ. of Defense Technology
Yunlong Kong	National Univ. of Defense Technology
Shuiyang Liang	National Univ. of Defense Technology
Longkang Chang	National Univ. of Defense Technology
Qingsong Li	National Univ. of Defense Technology
Wenqi Wu	National Univ. of Defense Technology
Zhanqiang Hou	National Univ. of Defense Technology
Tongqiao Miao	National Univ. of Defense Technology
13:30-15:30	C12.41
1313 <i>Research on a silicon-based novel flexible pendulum angular acceleration sensor</i>	
Bin Sun	AVIC Xi'an Flight Automatic Control Research Institute
Pu Chen	AVIC Xi'an Flight Automatic Control Research Institute
Xiwen Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Xinhu Wang	AVIC Xi'an Flight Automatic Control Research Institute
Xuetao Guo	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	C12.42
113 <i>Dynamic simulation analysis of the cabin door opening</i>	

<i>mechanism based on LMS motion</i>		Xu Zhang	The First Aircraft Institute of Aviation
Weijuan Zheng	Qing'An Group Co., Ltd.		Industry Corporation of China
Hongjun Pang	Qing'An Group Co., Ltd.	Wenjing Hei	The First Aircraft Institute of Aviation
13:30-15:30	C12.43		Industry Corporation of China
121 导航软件桌面仿真运行环境设计与实现		13:30-15:30	C12.48
Congchao Wang	AVIC Xi'an Flight Automatic Control Research Institute	661 <i>Design and static strength analysis of civil fire-fighting aircraft water tank support structure</i>	
Qingchun Yang	AVIC Xi'an Flight Automatic Control Research Institute	Yukang Ren	Shanghai Aircraft Design and Research Institute
Mengfei Qiao	AVIC Xi'an Flight Automatic Control Research Institute	Qi Chen	Shanghai Aircraft Design and Research Institute
Shenjian Qu	AVIC Xi'an Flight Automatic Control Research Institute	Pengfei Zhang	Shanghai Aircraft Design and Research Institute
Longhui Yao	AVIC Xi'an Flight Automatic Control Research Institute	Zhengyi Zhu	Shanghai Aircraft Design and Research Institute
Shaolong Song	AVIC Xi'an Flight Automatic Control Research Institute	13:30-15:30	C12.49
13:30-15:30	C12.44	697 <i>Terminal navigation parameter inversion based on meta-learning physics-informed neural networks</i>	
176 <i>Research on aerodynamic and structural design technology of ducted fan for ducted eVTOL</i>		Zijian Cui	Beijing Institute of Astronautical Systems Engineering
Zengyong An	Qing'An Group Co., Ltd.	Jun Zhang	Beijing Institute of Astronautical Systems Engineering
Hui Wang	Qing'An Group Co., Ltd.	Rubin Luo	Beijing Institute of Astronautical Systems Engineering
Yuan Sun	Qing'An Group Co., Ltd.	13:30-15:30	C12.50
13:30-15:30	C12.45	868 <i>An enhanced architecture trade-off analysis method for embedded systems: integrating AADL and MCDM</i>	
443 飞管系统余度管理自动测试平台设计		Zelin Li	AVIC Xi'an Flight Automatic Control Research Institute
Zhiqiang Ai	AVIC Shenyang Aircraft Design and Research Institute	Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Xiaoye Bi	AVIC Shenyang Aircraft Design and Research Institute	Dantao Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Yang Wang	AVIC Shenyang Aircraft Design and Research Institute	Tao Wang	AVIC Xi'an Flight Automatic Control Research Institute
Hongbo Zhu	AVIC Shenyang Aircraft Design and Research Institute	Hongming Liu	AVIC Xi'an Flight Automatic Control Research Institute
Yue Hu	AVIC Shenyang Aircraft Design and Research Institute	Zhiyong Tan	AVIC Xi'an Flight Automatic Control Research Institute
Lingwei Kong	AVIC Shenyang Aircraft Design and Research Institute	Qiqi Xue	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	C12.46	Yingnan Tong	AVIC Xi'an Flight Automatic Control Research Institute
525 <i>Design of an open-source graphical simulation platform based on MBD and its application in INDI control law design</i>		Weitong Li	AVIC Xi'an Flight Automatic Control Research Institute
Dezhang Zhou	Southwest Univ. of Science and Technology	13:30-15:30	C12.51
Hai Chen	China Aerodynamics Research and Development Center	982 <i>Research on low-stress packaging of MEMS disk resonant gyroscope</i>	
Tao Liu	Southwest Univ. of Science and Technology	Jiawei Song	AVIC Xi'an Flight Automatic Control Research Institute
Yinan Kong	China Aerodynamics Research and Development Center	Jian Wang	AVIC Xi'an Flight Automatic Control Research Institute
Tun Zhao	China Aerodynamics Research and Development Center	Yuzhe Zhang	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	C12.47	Wenhong Li	AVIC Xi'an Flight Automatic Control Research Institute
564 <i>Dynamic simulation study of radio navigation based on MATLAB/Simulink App Designer</i>			
Wenchao Liu	The First Aircraft Institute of Aviation Industry Corporation of China		
Zhishan Yang	The First Aircraft Institute of Aviation Industry Corporation of China		

Pingtailei Lv	AVIC Xi'an Flight Automatic Control Research Institute	Chong Zhen	AVIC Shenyang Aircraft Design and Research Institute
13:30-15:30	C12.52	Hongrun Yin	AVIC Shenyang Aircraft Design and Research Institute
1045 <i>An automated method for test script generation in flight control redundancy management</i>		Yue Wang	AVIC Shenyang Aircraft Design and Research Institute
Gang Yang	AVIC Xi'an Flight Automatic Control Research Institute	13:30-15:30	C12.57
Jia Tian	AVIC Xi'an Flight Automatic Control Research Institute	1437 <i>Research on trajectory planning for spray painting robotic arm based on MATLAB-CoppeliaSim</i>	
Lin Yang	AVIC Xi'an Flight Automatic Control Research Institute	Wendian Zhang	Changchun Technical Univ.
Shaolong Song	AVIC Xi'an Flight Automatic Control Research Institute	13:30-15:30	C12.58
13:30-15:30	C12.53	1623 <i>Study on civil helicopter unusable fuel supply airworthiness certification method</i>	
1056 <i>Research on automated modeling and simulation verification of flight control logic based on large language model agents</i>		Hui Zhao	China Helicopter Research and Development Institute
Zhaoxu Yang	AVIC Chengdu Aircraft Design and Research Institute	Ziyue Qu	China Helicopter Research and Development Institute
Yinchao Chen	AVIC Chengdu Aircraft Design and Research Institute	Yueping Hou	China helicopter reach and design institution
Tao Wang	AVIC Chengdu Aircraft Design and Research Institute	Donglin Wang	Guangzhou Aircraft Certification Center, Civil Aviation Administration of China
Hongyu Yan	AVIC Chengdu Aircraft Design and Research Institute	13:30-15:30	C12.59
Kai Wang	AVIC Chengdu Aircraft Design and Research Institute	1625 <i>Design of fixed-point navigation system for hospital ward meal delivery cart based on ROS</i>	
13:30-15:30	C12.54	Xiaojian Zhao	Jingchu Univ. of Technology
1082 <i>Simulink modeling of electromechanical servo mechanism system for a flight vehicle</i>		Kejun Zhang	Jingchu Univ. of Technology
Yiran Ding	Beijing Aerospace Automatic Control Institute	Xue Chen	Jingchu Univ. of Technology
Wenbo Fan	Beijing Aerospace Automatic Control Institute	Jing Luo	Jingchu Univ. of Technology
Yao Zhao	State Key Laboratory of Aerospace Intelligent Control Technology	Jingyi Huang	Jingchu Univ. of Technology
Fei Luo	Beijing Aerospace Automatic Control Institute	13:30-15:30	C12.60
Xinmin Zhang	Beijing Aerospace Automatic Control Institute	1639 <i>Design and simulation of ROS-based hospital patrol robot system</i>	
13:30-15:30	C12.55	Wenqiang Wu	Jingchu Univ. of Technology
1123 <i>VTOL 复合翼与常规布局机翼气动弹性对比</i>		Kejun Zhang	Jingchu Univ. of Technology
Zhao Yang	AVIC Xi'an Flight Automatic Control Research Institute	Xue Chen	Jingchu Univ. of Technology
Bojia Zeng	Shenyang Aerospace Univ.	Wenhua Gou	Jingchu Univ. of Technology
Gang Cheng	Shanghai Maritime Univ.	Jing Luo	Jingchu Univ. of Technology
Guoqiang Yang	AVIC Xi'an Flight Automatic Control Research Institute	13:30-15:30	C12.61
Dongliang Song	AVIC Xi'an Flight Automatic Control Research Institute	135 <i>Safety analysis of typical aircraft trim function based on dynamic fault tree</i>	
Mingming Tian	AVIC Xi'an Flight Automatic Control Research Institute	Lu Sun	Shenyang Aircraft Corporation
Yiming Du	Shenyang Aerospace Univ.	Wenzhe Li	AVIC Shenyang Aircraft Design and Research Institute
13:30-15:30	C12.56	Fangliu Jin	AVIC Shenyang Aircraft Design and Research Institute
1432 <i>基于高精度同步的飞控软件虚拟仿真验证技术</i>		Zhaohui Lin	Shenyang Aircraft Corporation
Yongyi Liu	AVIC Shenyang Aircraft Design and Research Institute	13:30-15:30	C12.62
		208 <i>Remaining useful life prediction based on autoencoder and maximum mean discrepancy</i>	
		Yufeng Qin	Naval Aviation Univ.
		Yong Song	Shandong Univ.
		Qi Wang	Naval Aviation Univ.
		Chengcheng Han	Naval Aviation Univ.
		Jinhe Yu	Naval Aviation Univ.
		Dong Yue	Naval Aviation Univ.
		13:30-15:30	C12.63

356 <i>PIAL: Physics-informed adaptive LSTM for few-shot battery SOH prediction in UAVs</i>		Renqing Zhai	AVIC Xi'an Flight Automatic Control Research Institute
Jingyan Zhao	Northwestern Polytechnical Univ.	Mingzhuang Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Hongwu Xu	Aerospace Standardization Research Institute	Linyi Zhi	Aircraft Strength Research Institute of China
Xiaoxiang Hu	Northwestern Polytechnical Univ.	Zhuang Xie	AVIC Xi'an Flight Automatic Control Research Institute
Yuewen Wang	Northwestern Polytechnical Univ.		
Chen Yang	Northwestern Polytechnical Univ.		
13:30-15:30	C12.64	13:30-15:30	C12.70
583 <i>General quality characteristics co-simulation based on logical and physical model mapping</i>		1636 <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
Duojia Huang	China Electronic Product Reliability and Environmental Testing Research Institute	Zeyu Tang	Guilin Univ. of Aerospace Technology
13:30-15:30	C12.65	13:30-15:30	C12.71
801 <i>水平安定面作动系统的安全控制架构研究</i>		1705 <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		
13:30-15:30	C12.66	13:30-15:30	C12.72
867 <i>Research on automatic grouping and configuration technology of flight parameter based on ARINC 767 standard</i>		1316 <i>Research on airworthiness compliance flight test verification methods for minimum control speed in the air of civil aircraft</i>	
Zhu Li	Hangzhou Dianzi Univ.	Haijun Ma	Civil Aircraft Flight Test Center
Jingyu Zhang	Hangzhou Dianzi Univ.	13:30-15:30	C12.73
Shuangyun Ma	Hangzhou Dianzi Univ.	1370 <i>Research on verification method of airworthiness compliance of lightning protection clause for civil aircraft</i>	
13:30-15:30	C12.67	Yan Liu	AVIC Xi'an Flight Automatic Control Research Institute
1098 <i>QCCS: A scoring method for evaluating quantum code comments</i>		Chao Zhang	AVIC Aerospace Systems Co.,Ltd.
Jinlong Wen	Beihang Univ.	Li Li	AVIC Xi'an Flight Automatic Control Research Institute
Xiaohan Yu	Beihang Univ.	13:30-15:30	C12.74
Beibei Yin	Beihang Univ.	1735 <i>Safety assessment of eVTOL power systems under different tilt mechanism configurations</i>	
13:30-15:30	C12.68	Jianzhong Yang	Civil Aviation Univ. of China
1430 <i>SAST+SCA 融合漏洞监测技术在飞控领域的应用</i>		Baosong Ji	Civil Aviation Univ. of China
Qi Zhang	AVIC Shenyang Aircraft Design and Research Institute	Xiaozhe Sun	Civil Aviation Univ. of China
Dapeng Zhou	AVIC Shenyang Aircraft Design and Research Institute	13:30-15:30	C12.75
Shuangfei Fu	AVIC Shenyang Aircraft Design and Research Institute	1752 <i>Construction and evaluation of a college students' mental health teaching model based on connectivism</i>	
Ting Wang	AVIC Shenyang Aircraft Design and Research Institute	Shuailing Zhu	Guilin Univ. of Aerospace Technology
13:30-15:30	C12.69	Wei Liu	Guilin Univ. of Aerospace Technology
1597 <i>Testability modeling method for civil aircraft fly-by-wire flight control systems oriented to airline operations</i>		13:30-15:30	C12.76
		323 <i>Case-based learning in intelligent control theory curriculum: an integrated design case for aerial combat decision-making</i>	
		Lingyu Yang	Beihang Univ.
		Jie Yuan	Beihang Univ.
		Jing Zhang	Beihang Univ.
		Weiqi Li	Beihang Univ.
		13:30-15:30	C12.77
		547 <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.

Qing Li	Tsinghua Univ.
13:30-15:30	C12.90
639 Application of a controller design method based on the integration of structure search and parameter optimization to a 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.
13:30-15:30	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
13:30-15:30	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
13:30-15:30	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.
13:30-15:30	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
13:30-15:30	C12.95
804 A stochastic optimization approach to heterogeneous satellite scheduling under cloud uncertainty	
Jian Kuang	Sichuan Univ.
Bin Li	Sichuan Univ.
13:30-15:30	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.

13:30-15:30	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.
13:30-15:30	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
13:30-15:30	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.
13:30-15:30	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
13:30-15:30	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
13:30-15:30	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.
13:30-15:30	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.
13:30-15:30	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.	Technology
Hongwei Fang	Sichuan Univ.	13:30-15:30 C12.111
13:30-15:30	C12.105	1267 基于预设轨迹的变体飞行器鲁棒预定时间跟踪控制
258 <i>Main satellite attitude dynamics of space tether formation considering deployment mechanism coupling</i>		Lin He Xiangtan Univ.
Ying Zhang Northwestern Polytechnical Univ.		Yingquan Nie Xiangtan Univ.
Changqing Wang Northwestern Polytechnical Univ.		Zurong Wu Xiangtan Univ.
Hongshi Lu Northwestern Polytechnical Univ.		Wenrui Shi Xiangtan Univ.
Aijun Li Northwestern Polytechnical Univ.		13:30-15:30 C12.112
13:30-15:30	C12.106	1302 <i>Tip clearance protection for coaxial compound helicopters based on peak response estimation</i>
610 <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.		13:30-15:30 C12.113
13:30-15:30	C12.107	514 <i>Polarization-aware incremental HRRP recognition with mild energy constraint</i>
1624 <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.		13:30-15:30 C12.114
13:30-15:30	C12.108	599 <i>An oFAST-rBRIEF and genetic-algorithm-based coarse-to-fine method for infrared and visible image registration of circuit board</i>
466 <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
13:30-15:30	C12.109	Xiuzhen Wu Naval Aviation Univ.
491 <i>Prescribed-Time attitude control for loitering munitions</i>		13:30-15:30 C12.115
Lei Su Xi'an Modern Control Technology Research Institute		798 <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.
13:30-15:30	C12.110	13:30-15:30 C12.116
961 <i>Prescribed-time attitude tracking control of rigid spacecraft with guaranteed performance under arbitrary initial conditions</i>		1190 <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		13:30-15:30 C12.117
Jiahao Huang Zhejiang Univ. of Science and Technology		1192 基于引导形态学规划的低空高速突防航迹生成方法
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
		Yong Liang Naval Aeronautical Univ.
		13:30-15:30 C12.118
		1289 基于时间同步的多无人机协同环绕控制
		Yahui Qi Naval Aeronautical Univ.
		Luyu Liu Naval Aeronautical Univ.
		Xiuzhen Wu Naval Aeronautical Univ.
		13:30-15:30 C12.119

1720 *Target allocation method for UAV swarm collaborative rescue based on SA-PSO*

Shicheng Xiong	Unit 92942 of the PLA
Shuailei Wang	Unit 92942 of the PLA
XueLiang Tian	Unit 92942 of the PLA
13:30-15:30	C12.120

427 *Domain generalization for wind turbine defect detection under adverse weather conditions*

Jinhan Zhou	Shantou Univ.
Jingwei Sun	Shantou Univ.
13:30-15:30	C12.121

650 *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.
13:30-15:30	C12.122

679 *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.
13:30-15:30	C12.123

1094 *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.
13:30-15:30	C12.124

1164 *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.
13:30-15:30	C12.125

1713 *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.
13:30-15:30	C12.126

200 *Research on ground taxiing deviation correction for UAV*

Jingjing He	AVIC the First Aircraft Institute
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Zhixuan Su	AVIC the First Aircraft Institute
Xiaolei Ma	AVIC the First Aircraft Institute
Haogang Zhao	AVIC the First Aircraft Institute
13:30-15:30	C12.127

1061 *Integrated management and control design method for UAV airborne equipment*

Yanhao Liu	AVIC the First Aircraft Institute
Yan Zhu	AVIC the First Aircraft Institute
13:30-15:30	C12.128

205 *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.
13:30-15:30	C12.129

559 *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.
Xiwang Dong	Beihang Univ.
Zhang Ren	Beihang Univ.
13:30-15:30	C12.130

1175 *Modeling and simulation of elastic projectiles at high angles of attack*

Yanhong Wei	Beihang Univ.
Jianglong Yu	Beihang Univ.
13:30-15:30	C12.131

1356 *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.
13:30-15:30	C12.132

1405 *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.
Xiwang Dong	Beihang Univ.
Qingdong Li	Beihang Univ.
13:30-15:30	C12.133

1092 *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
13:30-15:30	C12.134

1583 *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
13:30-15:30	C12.135
1144 <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.
13:30-15:30	C12.136
201 <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.
13:30-15:30	C12.137
1116 <i>Influence analysis of polarization azimuth drift error in comagnetometers</i>	
Lele Ma	Beihang Univ.
Haoying Pang	Beihang Univ.
Jixi Lu	Beihang Univ.
13:30-15:30	C12.138
1446 <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
13:30-15:30	C12.139
658 <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
13:30-15:30	C12.140
1500 <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.
13:30-15:30	C12.141
1523 <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.

13:30-15:30	C12.142
734 <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
13:30-15:30	C12.143
757 <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
13:30-15:30	C12.144
903 <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
13:30-15:30	C12.145
1638 <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
13:30-15:30	C12.146
1147 <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
13:30-15:30	C12.147
1149 <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
13:30-15:30	C12.148
1354 <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
13:30-15:30	C12.149
1358 一种面向消费级深度相机的计算摄影框架	
Guochen Niu	Civil Aviation Univ. of China
Haoyu Zhou	Civil Aviation Univ. of China
13:30-15:30	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
Guochen Niu	Civil Aviation Univ. of China
13:30-15:30	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	
Guochen Niu	Civil Aviation Univ. of China
Zhihao Lv	Civil Aviation Univ. of China
13:30-15:30	C12.152
577 <i>Intelligent identification of flight vehicle under incomplete information conditions</i>	
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
13:30-15:30	C12.153
619 <i>Modeling dual-point total-field magnetic velocity observation with optical-pump magnetometers</i>	
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.
13:30-15:30	C12.154
635 <i>A method for vector magnetic measurement data compensation based on total field optimization</i>	
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
13:30-15:30	C12.155
642 <i>INER-SSM: State space modeling for inertial navigation error dynamics in high-dynamic environments</i>	
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.
13:30-15:30	C12.156
394 <i>Multi-UAV cooperative interception method based on improved self-organizing model</i>	
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
13:30-15:30	C12.157
1155 <i>A goal-oriented multi-agent pursuit method for unmanned surface vessels based on MADDPG-HER</i>	
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.
13:30-15:30	C12.158
1214 <i>TriMamba-OC: Tri-branch temporal perception for USV collision avoidance under ocean current disturbances</i>	
Yu Zhang	Shanghai Univ.
Xiangfeng Ma	CSSC Systems Engineering Research Institute
Rui Song	Shanghai Univ.
Hanxiao Liu	Shanghai Univ.
Yan Peng	Shanghai Univ.
13:30-15:30	C12.159
1348 <i>A causal attention-enhanced UAV intent recognition framework for low-altitude safety protection decision-making</i>	
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
13:30-15:30	C12.160
1355 <i>A review of automated course of action generation technologies for aviation equipment</i>	
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
13:30-15:30	C12.161
580 <i>Heterogeneous UAV air combat cooperative decision-making via situation-based hierarchical reinforcement learning</i>	
Qing Zhang	Beihang Univ.
Yangzhu Wang	Beihang Univ.
Xiaoman Zhang	Beihang Univ.
Kun Wu	Beihang Univ.
Huaxin Qiu	Beihang Univ.
13:30-15:30	C12.162
803 <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
13:30-15:30	C12.163
976 <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.
13:30-15:30	C12.164
1130 <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
13:30-15:30	C12.165
1365 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
13:30-15:30	C12.166
189 <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
13:30-15:30	C12.167
582 <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
13:30-15:30	C12.168
692 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
13:30-15:30	C12.169
853 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
13:30-15:30	C12.170
1536 <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
13:30-15:30	C12.171
1736 <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
13:30-15:30	C12.172
131 <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
13:30-15:30	C12.173
132 <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
D1 1st Floor VIP Room	
Swarm GNC 1层 贵宾厅	
Chair: Zhenghao Ni	
15:45-15:53	D1.1
477 <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
478 <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
553 <i>Cauchy-Gaussian adaptive mutation pigeon-inspired optimization for integral sliding mode control of aerial manipulator</i>	
Deshuang Zhang	Beihang Univ.
Chen Wei	Beihang Univ.
Haibin Duan	Beihang Univ.
16:09-16:17	D1.4
1550 <i>Graph convolutional network guided artificial hummingbird clustering topology optimization for FANETS</i>	
Zhuolin Xing	Nanjing Univ. of Aeronautics and Astronautics
Ke Zhang	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
Wanglei Cheng	Nanjing Univ. of Aeronautics and Astronautics
16:17-16:25	D1.5
240 <i>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</i>	
Zan Ma	Civil Aviation Univ. of China
Chunlin He	Civil Aviation Univ. of China
Liqin Yan	Civil Aviation Univ. of China
Jie Bai	Civil Aviation Univ. of China
16:25-16:33	D1.6
480 <i>Data-driven modeling of collective pigeon motion via behavior cloning</i>	
Yichen Tao	Beihang Univ.
Haibin Duan	Beihang Univ.
Mengzhen Huo	Beihang Univ.
16:33-16:41	D1.7
518 <i>A lightweight YOLOv5-FFM model for UAV-based occluded pedestrian detection</i>	
Xiaotong Zou	Beihang Univ.
Zhihao Cai	Beihang Univ.
Jiang Zhao	Beihang Univ.
Yingxun Wang	Beihang Univ.
16:41-16:49	D1.8
687 <i>Research on a quantitative evaluation method for drill bit wear based on 3D scanning and computer vision</i>	
Yuanfei Zhang	China Univ. of Petroleum
Yu Song	China Univ. of Petroleum
Kun Jiang	China Univ. of Petroleum
16:49-16:57	D1.9
838 <i>Disturbance modeling and compensation for quadrotors in confined spaces</i>	
Huarui Xu	Harbin Institute of Technology
Xu Wang	Harbin Institute of Technology
Rui Zhou	Harbin Institute of Technology
Yanfeng Liu	Harbin Institute of Technology

Zhan Li	Harbin Institute of Technology
16:57-17:05	D1.10
938 <i>Target allocation under logical constraints based on decision-focused learning</i>	
Haoyuan Zhang	Shanghai Jiao Tong Univ.
Chenggang Wang	Shanghai Jiao Tong Univ.
Bochen Li	Shanghai Jiao Tong Univ.
Lu Ding	Guang Xi Univ.
Dan Huang	Shanghai Jiao Tong Univ.
Lei Song	Shanghai Jiao Tong Univ.
Huaping Liu	Tsinghua Univ.
17:05-17:13	D1.11
974 <i>A multi-agent test case generation framework for military GNC software</i>	
Gang Yang	AVIC Xi'an Flight Automatic Control Research Institute
Jia Tian	AVIC Xi'an Flight Automatic Control Research Institute
17:13-17:21	D1.12
1093 <i>P3RAG: Process parameter planning via retrieval-augmented generation</i>	
Yihui Wang	Beijing Institute of Technology
Meiling Wang	Beijing Institute of Technology
Xiaohan He	Beijing Institute of Technology
Yinchi Li	Beijing Institute of Technology
Ming Jian	Beijing Institute of Technology
Shuming Zhang	Beijing Institute of Technology
17:21-17:29	D1.13
1244 <i>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</i>	
Lu Lu	Nanjing Univ. of Aeronautics and Astronautics
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
Qian Wang	Nanjing Univ. of Aeronautics and Astronautics
17:29-17:37	D1.14
1394 <i>Fixed-topology formation circumnavigation tracking control for second-order multi-agent systems</i>	
Changhai Wang	Tsinghua Univ.
Yu Hu	Beijing Institute of Astronautical System Engineering
17:37-17:45	D1.15
1498 <i>Research on adaptive step length estimation based on CNN-BiLSTM</i>	
Miao Zhang	Nanjing Univ. of Aeronautics and Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics and Astronautics
Xiaodong Li	Nanjing Univ. of Aeronautics and Astronautics
Yan Cui	Nanjing Univ. of Aeronautics and Astronautics
Ling Zhang	Nanjing Univ. of Aeronautics and Astronautics

D2	2nd Floor Yangshuo Room	
Distributed GNC	2 层 阳朔厅	
Chair: Zhihua Cui		
15:45-15:53	D2.1	
1699 多无人机电力协同巡检的高维多目标多任务编队优化		
Zhihua Cui	Taiyuan Univ. of Science and Technology	
Hongyan Jiang	Taiyuan Univ. of Science and Technology	
Ling Wang	Tsinghua Univ.	
Tianhao Zhao	Taiyuan Univ. of Science and Technology	
Xingjuan Cai	Taiyuan Univ. of Science and Technology	
15:53-16:01	D2.2	
302 Communication-efficient distributed equilibrium seekings for cluster games: A compressed gradient tracking approach		
Fan Li	Northeastern Univ.	
Kunpeng Zhang	Northeastern Univ.	
Lei Xu	KTH Royal Institute of Technology	
Tao Yang	Northeastern Univ.	
16:01-16:09	D2.3	
1461 A generic algorithm framework for distributed optimization over time-varying networks with communication delays and its extension to Nash equilibrium seeking		
Jie Liu	Southeast Univ.	
16:09-16:17	D2.4	
1227 LAIO: A lightweight instantaneous neural inertial odometry for real-time UAV state estimation		
Weijie Sang	Beijing Information Science and Technology Univ.	
Zhiqiang Yan	Beijing Information Science and Technology Univ.	
Chunyu Li	Beijing Institute of Technology	
Ziyang Meng	Tsinghua Univ.	
16:17-16:25	D2.5	
1261 Closed-form quaternion estimation for GNSS/accelerometer/magnetometer attitude determination with analytical covariance		
Yang Liu	The Hong Kong Univ. of Science and Technology	
Fulong Ma	The Hong Kong Univ. of Science and Technology	
Yang Yu	The Hong Kong Univ. of Science and Technology	
16:25-16:33	D2.6	
1274 Experimental validation of analytical multi-sensor attitude estimation for fixed-wing MAVs		
Yang Liu	The Hong Kong Univ. of Science and Technology	
Fulong Ma	The Hong Kong Univ. of Science and Technology	
Yang Yu	The Hong Kong Univ. of Science and Technology	
16:33-16:41	D2.7	
1342 Research on performance evaluation methods of multi-regional high-density and high-revisit dynamic target		

tracking and observation system

Rong Ma	China Academy of Space Technology	
Qingrui Zhou	China Academy of Space Technology	
Luojia Hu	China Academy of Space Technology	
Jingdong Diao	China Academy of Space Technology	
Changhao Sun	China Academy of Space Technology	
16:41-16:49		D2.8
381 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		
Shan Li	North Univ. of China	
Xindong Wu	North Univ. of China	
Huijun Zhao	North Univ. of China	
Xiaochen Liu	North Univ. of China	
Chong Shen	North Univ. of China	
16:49-16:57		D2.9
527 <i>A fast and accurate feature-attention-based stereo visual inertial odometry method for autonomous robot</i>		
Kezhi Wang	Univ. of Science and Technology of China	
Leyang Wang	Univ. of Science and Technology of China	
Zonghai Chen	Univ. of Science and Technology of China	
Jikai Wang	Univ. of Science and Technology of China	
16:57-17:05		D2.10
1468 <i>Monte carlo pose uncertainty analysis for failure prediction in ORB-SLAM3</i>		
Bohuan Xue	South China Normal Univ.	
Zihao Zhu	South China Normal Univ.	
Shangqiu Shan	Space Engineering Univ.	
Brian C.W. Kei	The Hong Kong Polytechnic Univ.	
17:05-17:13		D2.11
1504 <i>SSI-PR: A selective structure injection framework for robust multi-modal place recognition</i>		
Zhiqiang Yang	Zhejiang Univ. of Technology	
Jintao Cheng	Hong Kong Univ. of Science and Technology	
Jiehao Luo	South China Normal Univ.	
17:13-17:21		D2.12
1678 <i>Lift-off spoofing detection for GNSS/5G/INS tightly-coupled systems</i>		
Zihao Li	Beihang Univ.	
Yanhong Kou	Beihang Univ.	
17:21-17:29		D2.13
760 <i>A learning-based visual-inertial SLAM framework with dense bundle adjustment</i>		
Weiyan Zhao	Beijing Institute of Technology	
Jun Zhu	Tsinghua Univ.	
Jiawei Zhao	Xi'an Research Institute of Hi-tech	
Tao Xue	Tsinghua Univ.	
Tao Zhang	Tsinghua Univ.	
17:29-17:37		D2.14
1408 高精度位移传感电路标定用电容器		
Guiyi Xu	Tsinghua Univ.	
Yuchi Meng	Tsinghua Univ.	
Xiaoxia He	Tsinghua Univ.	

Zewen Wan	Beijing Jiaotong Univ.
Ziao Zhang	Beijing Jiaotong Univ.
Shuotian Shi	Beijing Jiaotong Univ.
Ze Liu	Beijing Jiaotong Univ.
17:37-17:45	D2.15
1616 Adaptive nonlinear guidance law for high speed vehicles following planned waypoints	
Jiayi Yuan	Fudan Univ.
Jianliang Ai	Fudan Univ.
D3	2nd Floor Lipu Room
Resilient GNC	2 层 荔浦厅
Chair: Enjiao Zhao	
15:45-15:53	D3.1
435 基于双站立体几何与 SRCKF 的地月空间非合作目标短弧初轨确定方法研究	
Yichen Yang	Nanjing Univ. of Aeronautics and Astronautics
Youtao Gao	Nanjing Univ. of Aeronautics and Astronautics
15:53-16:01	D3.2
1106 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
750 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
883 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
1380 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
250 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
252 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
310 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
546 Voronoi skeleton-based path planning with topology switching for unmanned surface vehicles	
Runlong Kou	Harbin Engineering Univ.
Enjiao Zhao	Harbin Engineering Univ.
Yuxin Zhao	Harbin Engineering Univ.
16:57-17:05	D3.10
967 AUV path planning with cross-attention and teacher-guided deep reinforcement learning	
Lupan Zhang	Harbin Engineering Univ.
17:05-17:13	D3.11
596 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
1264 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
430 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
1579 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

937 *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.

jia yuan shan	Beijing Institute of Technology
Yankai Wang	Beijing institute of technology

D4 2nd Floor Nanning Room1
Cooperative GNC 2 层 南宁厅 1

Chair: Guofei Li

15:45-15:53 D4.1

1291 *多飞行器多目标动态分配协同制导方法*

Yanan Chang	Northwestern Polytechnical Univ.
Qingpu Tang	Northwestern Polytechnical Univ.
Jiyu Xia	Beijing Institute of Electronic Engineering

Guofei Li Northwestern Polytechnical Univ.

15:53-16:01 D4.2

1162 *基于改进量子粒子群算法的中继卫星任务调度*

Chuchu Han	Nanjing Univ. of Aeronautics and Astronautics
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics
Wenxuan Wang	Nanjing Univ. of Aeronautics and Astronautics

16:01-16:09 D4.3

1295 *Distributed cooperative task allocation for heterogeneous UAV swarms under complex constraints: An OCF game approach*

Haofan Wang	Nanjing Univ. of Aeronautics and Astronautics
Yajie Ma	Nanjing Univ. of Aeronautics and Astronautics.
Bin Jiang	Nanjing Univ. of Aeronautics and Astronautics.
Hang Yu	Nanjing Univ. of Aeronautics and Astronautics.

16:09-16:17 D4.4

814 *DMPC based on koopman operator for multi-UGV collision avoidance*

Chenhao Shao	Sichuan Univ.
Bin Li	Sichuan Univ.

16:17-16:25 D4.5

522 *Uncertainty-aware distributed formation control for multi-UAV systems via robust control barrier functions and visual estimation*

Zhaobang Li	National Univ. of Defense Technology
Ruixiang He	National Univ. of Defense Technology
Yang Li	National Univ. of Defence Technology

Yike Xiao	National Univ. of Defense Technology
16:25-16:33	D4.6

702 *A real-time obstacle avoidance system for synergistic drone swarm in dense environments*

Hao Zhang	Beijing Institute of Technology
Zihao Wei	Beijing Institute of Technology
Hang Xiao	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
Xuan Xiao	Beijing Institute of Technology

16:33-16:41 D4.7

471 *A pigeon-inspired optimization method for UAV formation transformation based on reinforcement learning algorithm*

Xiaoxuan Gao	Beihang Univ.
Yongqiong Yuan	China Electronics Technology Group Corporation
Yang Yuan	Beihang Univ.
Haibin Duan	Beihang Univ.

16:41-16:49 D4.8

1062 *An MPSP-based fixed-wing UAV formation assembly guidance method*

Huitao Yang	Beijing Institute of Technology
Qiuqiu Wen	Beijing Institute of Technology

16:49-16:57 D4.9

1312 *Robust control for quadrotor UAV precise formation based on virtual control network and ADRC*

Jie Li	Beijing Institute of Technology
Yuanqing Xia	Beijing Institute of Technology

16:57-17:05 D4.10

1404 *Distributed linear time-varying formation maneuvering for networked UAV systems with input saturation*

Yulin Kang	Univ. of Electronic Science and Technology of China
Jinghan Fu	Univ. of Electronic Science and Technology of China
Mengji Shi	Univ. of Electronic Science and Technology of China
Weihao Li	Univ. of Electronic Science and Technology of China
Yu Wu	Univ. of Electronic Science and Technology of China
Kaiyu Qin	Univ. of Electronic Science and Technology of China

17:05-17:13 D4.11

242 *Online affine formation parameter planning for robot swarms in underground tunnel environments*

XiaoSheng Sun	Nanjing Univ. of Aeronautics and Astronautics
Kenan Yong	Nanjing Univ. of Aeronautics and Astronautics
Mou Chen	Nanjing Univ. of Aeronautics and Astronautics
Shuyi Shao	Nanjing Univ. of Aeronautics and Astronautics

17:13-17:21 D4.12

554 *LLM-guided multi-robots formation navigation with predictive safety filtering via sampling-based optimization*

Boxiang Li	Beihang Univ.
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Yuwei Zhang	Beihang Univ.
Xingjian Wang	Beihang Univ.
Shaoping Wang	Beihang Univ.
Gavrilov Alexander I.	Bauman Moscow State Technical Univ.
Xi Wang	Suzhou Tiantong Weishi Electronic Technology Co., Ltd.
17:21-17:29	D4.13
774 Analysis of key constraints for automatic formation control in large-scale aerial delivery scenarios	
Song Wang	AVIC Beijing Keeven Aviation Instrument Co.Ltd.
Jiawei Xu	AVIC Beijing Keeven Aviation Instrument Co.Ltd.
Mengfan Liu	AVIC Beijing Keeven Aviation Instrument Co.Ltd.
Yang Liu	AVIC Beijing Keeven Aviation Instrument Co.Ltd.
17:29-17:37	D4.14
1535 Reform practice of graduate experimental course in detection technology aimed at cultivating research literacy	
Gang Wang	Beijing Univ. of Posts and Telecommunications
Haixia Zhang	Beijing Univ. of Posts and Telecommunications
17:37-17:45	D4.15
579 Low-altitude route network planning methods: a comprehensive survey	
Duo Qi	Air Force Engineering Univ.
Beipo Su	Air Force Engineering Univ.
Jiangbin Dai	Air Force Engineering Univ.
Xiaoyue Ren	Air Force Engineering Univ.
Xingyu He	Air Force Engineering Univ.
D5	2nd Floor Nanning Room2
Smart GNC	2 层 南宁厅 2
Chair: Wenwu Zhu	
15:45-15:53	D5.1
1066 Multi-agent large language models for connectivity restoration in damaged graphs	
Ruilin Wang	Univ. of Chinese Academy of Science
Xiaolin Ai	Univ. of Chinese Academy of Science
Yang Xu	Beihang Univ.
15:53-16:01	D5.2
1731 Research on a hybrid autonomous decision-making method for UAVs based on behavior trees	
Chunfeng Luo	AVIC Chengdu Aircraft Design and Research Institute
TianCai Wan	AVIC Chengdu Aircraft Design and Research Institute
Hui Li	AVIC Chengdu Aircraft Design and Research Institute
Tao Wang	AVIC Chengdu Aircraft Design and Research Institute
Ke Shi	AVIC Chengdu Aircraft Design and Research Institute
16:01-16:09	D5.3
997 OSM-based robot path planning with global right-side	

correction and local efficient optimization	
Chenxi Shao	Northwestern Polytechnical Univ.
Yu Fang	Northwestern Polytechnical Univ.
Anmin Huang	Northwestern Polytechnical Univ.
Junhua Gou	Northwestern Polytechnical Univ.
Renyuan Zhang	Northwestern Polytechnical Univ.
16:09-16:17	D5.4
1456 DE-planner: an efficient end-to-end dynamic framework for UAV navigation	
Jiawei Yao	Shenyang Univ. of Technology
Ting Wang	Shenyang Institute of Automation
Fengkui Cao	Shenyang Institute of Automation
Yanpeng Jia	Shenyang Institute of Automation
Xianyuan Zhu	Shenyang Univ. of Chemical Technology
16:17-16:25	D5.5
1493 An energy-aware multi-agent solution for coverage in complex irregular regions	
Mingyue Tu	Southeast Univ.
He Wang	Southeast Univ.
Wenwu Yu	Southeast Univ.
16:25-16:33	D5.6
1221 Design and implementation of integrated digital-physical visual flight test platform for unmanned aerial vehicles	
Yuze Zhou	Beijing Institute of Technology
Junzhi Li	Beijing Institute of Technology
Yang Song	Beijing Institute of Technology
Jingliang Sun	Beijing Institute of Technology
Teng Long	Beijing Institute of Technology
16:33-16:41	D5.7
909 Continuous dual-ball throwing and catching via reinforcement learning with fine-grained rewards	
Jieqian Sun	Tsinghua Univ.
Fengbo Lan	Tsinghua Univ.
Hengxuan Xu	Tsinghua Univ.
Ziye Zhang	Tsinghua Univ.
Tao Xue	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
16:41-16:49	D5.8
999 Meta-reinforcement learning with unified rewards for versatile multi-tool mobile manipulation	
Fengbo Lan	Tsinghua Univ.
Ziye Zhang	Tsinghua Univ.
Hengxuan Xu	Tsinghua Univ.
Jieqian Sun	Tsinghua Univ.
Tao Xue	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
16:49-16:57	D5.9
241 Safety-constrained path planning for UAV inspection in a substation-related transmission tower scenario	
Qinan Zhang	Univ. of Science and Technology of China
Hongbing Luo	Univ. of Science and Technology of China
Wen Wang	State Grid Anhui Electric Power Co., Ltd.
Wenjun Lv	Univ. of Science and Technology of China

Jian Di	Univ. of Science and Technology of China	1152 <i>Aerial target reconnaissance and localization algorithm based on twin rendering matching</i>	
Yu Kang	Univ. of Science and Technology of China	Weitong Liu	AVIC Xi'an Flight Automatic Control Research Institute
16:57-17:05	D5.10	Shaolong Song	AVIC Xi'an Flight Automatic Control Research Institute
953 <i>LSTM-MPC: Physically feasible and interpretable trajectory prediction</i>		YunLong Fan	AVIC Xi'an Flight Automatic Control Research Institute
Jinwei Liu	Univ. of Science and Technology of China	Bowei Wang	AVIC Xi'an Flight Automatic Control Research Institute
Pengfei Li	Univ. of Science and Technology of China	Xiaole Xu	AVIC Xi'an Flight Automatic Control Research Institute
Qianqian Zhang	Anhui Univ.	Xiwen Yao	Northwestern Polytechnical Univ.
Yunbo Zhao	Univ. of Science and Technology of China	15:53-16:01	D6.2
Yu Kang	Univ. of Science and Technology of China	615 <i>A vision-based guidance algorithm for UAV ground taxiing</i>	
17:05-17:13	D5.11	Keyan Hu	Northwestern Polytechnical Univ.
391 <i>Task planning and decision-making for domestic service robots via the fusion method of linear temporal logic and reinforcement learning</i>		Jing Ni	Aviation industry Chengdu aircraft design institute
Hailong Xu	Hefei Univ. of Technology	Wanhua Xue	Northwestern Polytechnical Univ.
Yongzheng Cong	Hefei Univ. of Technology	Boyang Gao	Northwestern Polytechnical Univ.
Haibo Du	Hefei Univ. of Technology	Xiaoxiong Liu	Northwestern Polytechnical Univ.
Lanlin Yu	Hefei Univ. of Technology	16:01-16:09	D6.3
Wenwu Zhu	Hefei Univ. of Technology	413 <i>CBF-based tube model predictive control for formation and obstacle avoidance of fixed-wing UAV swarms in a virtual tube</i>	
17:13-17:21	D5.12	Janman Guo	Tiangong Univ.
549 <i>Constrained iterative LQR trajectory planning based on homotopy class constraints and higher-order dynamic optimization</i>		Liya Li	Harbin Engineering Univ.
Junquan Hong	Hefei Univ. of Technology	Hengbo Ren	Eastcompeace Technology Co., Ltd.
Haibo Du	Hefei Univ. of Technology	Shuangshi Zhao	Tianjin Keyvia Electric Co., Ltd
Lanlin Yu	Hefei Univ. of Technology	16:09-16:17	D6.4
Wenwu Zhu	Hefei Univ. of Technology	847 <i>Research on urban air-ground collaborative unmanned delivery algorithms based on multi-objective optimization</i>	
Xunhong Sun	Hefei Univ. of Technology	Changyin Dong	Northwestern Polytechnical Univ.
17:21-17:29	D5.13	Wentao He	Northwestern Polytechnical Univ.
551 <i>Dynamic-guided rolling horizon conflict resolution for multi-agent path finding in directed warehouse topologies</i>		16:17-16:25	D6.5
Haoran Zhang	Hefei Univ. of Technology	866 <i>Multi-node random search with adaptive pheromone for 3D cooperative target search of multi-UAV systems</i>	
Haibo Du	Hefei Univ. of Technology	Peng Xiao	Northwestern Polytechnical Univ.
Xunhong Sun	Hefei Univ. of Technology	Yu Pan	Northwestern Polytechnical Univ.
xiaochuan li	Hefei Univ. of Technology	Yanning Wang	Northwestern Polytechnical Univ.
Wenwu Zhu	Hefei Univ. of Technology	Changyin Dong	Northwestern Polytechnical Univ.
Lanlin Yu	Hefei Univ. of Technology	16:25-16:33	D6.6
17:29-17:37	D5.14	874 <i>Feasible-corridor-based offline planning for tethered multi-UAV payload transportation</i>	
452 <i>Research on simplified algorithm of UAS geofence based on security detection</i>		Yu Pan	Northwestern Polytechnical Univ.
Shidai Qiu	Air Force Engineering Univ.	Li Ni	Northwestern Polytechnical Univ.
Qixi Fu	Air Force Engineering Univ.	Peng Xiao	Northwestern Polytechnical Univ.
Duo Qi	Air Force Engineering Univ.	Fengcheng An	Northwestern Polytechnical Univ.
Yajun Zhang	Unit 93685 of PLA	Baokun Sun	Northwestern Polytechnical Univ.
17:37-17:45	D5.15	16:33-16:41	D6.7
1199 <i>Multi-objective 3D UAV path planning method with robust threat evaluation and risk-adaptive parameter regulation</i>		956 <i>PINN-driven energy-aware 3D trajectory optimization for quadrotor UAVs</i>	
Chenyang Sun	Air Force Engineering Univ.	Weijia Luo	Northwestern Polytechnical Univ.
Xingyu He	Air Force Engineering Univ.	Changyin Dong	Northwestern Polytechnical Univ.
Duo Qi	Air Force Engineering Univ.	Kangxi Shi	Northwestern Polytechnical Univ.
Xiaoyue Ren	Air Force Engineering Univ.	Yu Pan	Northwestern Polytechnical Univ.
D6	2nd Floor Nanning Room3	Yanning Wang	Northwestern Polytechnical Univ.
Unmanned GNC	2 层 南宁厅 3		
Chair: Xiaoxuan Gao			
15:45-15:53	D6.1		

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	<i>A boundary regularization method for multi-UAV coverage planning</i>
Yaning Wang	Northwestern Polytechnical Univ.
Li Ni	Northwestern Polytechnical Univ.
Peng Xiao	Northwestern Polytechnical Univ.
Fengcheng An	Northwestern Polytechnical Univ.
WeiJia Luo	Northwestern Polytechnical Univ.
16:57-17:05	D6.10
1040	<i>CSAP: A spatially-aware and speed-adaptive trajectory planning framework for autonomous UAV</i>
Fengcheng An	Northwestern Polytechnical Univ.
Li Ni	Northwestern Polytechnical Univ.
BenBo Zhu	Northwestern Polytechnical Univ.
Yaning Wang	Northwestern Polytechnical Univ.
Yu Pan	Northwestern Polytechnical Univ.
Peng Xiao	Northwestern Polytechnical Univ.
WeiJia Luo	Northwestern Polytechnical Univ.
17:05-17:13	D6.11
1043	<i>Cooperative guidance with impact angle and time constraints for multiple UAVs</i>
Jiashuo Liang	Northwestern Polytechnical Univ.
Jianghang Ge	Northwestern Polytechnical Univ.
Ban Wang	Northwestern Polytechnical Univ.
17:13-17:21	D6.12
1180	<i>Dual-band passive perception for UAV navigation in dark and smoky environments</i>
Shurui Dong	Northwestern Polytechnical Univ.
Ni Li	Northwestern Polytechnical Univ.
17:21-17:29	D6.13
1300	<i>A cognitive state-driven closed-loop adaptive decision-making framework for MUM-T systems</i>
Kangxi Shi	Northwestern Polytechnical Univ.
Yunshan Deng	Beijing Institute of Technology
WeiJia Luo	Northwestern Polytechnical Univ.
17:29-17:37	D6.14
1414	面向对地观测的平流层飞艇集群部署研究
Minyu Liu	National Univ. of Defense Technology
Xiaolong Deng	National Univ. of Defense Technology
Zhenyu Ma	National Univ. of Defense Technology
Xixiang Yang	National Univ. of Defense Technology
17:37-17:45	D6.15
1431	利用可变风场的推进受限平流层浮空器导航策略
Yuan Long	National Univ. of Defense Technology
Xiaolong Deng	National Univ. of Defense Technology
Xixiang Yang	National Univ. of Defense Technology
Fangchao Bai	National Univ. of Defense Technology
Minyu Liu	National Univ. of Defense Technology
D7	2nd Floor Longsheng Room
Pattern GNC	2 层 龙胜厅
Chair: Yongjun Wang	

15:45-15:53	D7.1
1527	<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
Shady Sadek	International Academy for Engineering and Media Science
15:53-16:01	D7.2
1533	<i>KGLM-HCC: Knowledge-guided lightweight modeling for noninvasive grading of hepatocellular carcinoma</i>
Chao Ye	Guilin Univ. of Electronic Technology
Bao Feng	Guilin Univ. of Aerospace Technology
Yu Liu	Guilin Univ. of Aerospace Technology
Jin Cui	Jiangmen Central Hospital
Zhixin Luo	Jiangmen Central Hospital
Fan Lin	The First Affiliated Hospital of Shenzhen Univ., Health Science Center, ShenzhenSecond People's Hospital
Enming Cui	Jiangmen Central Hospital
16:01-16:09	D7.3
1560	<i>Cross-modal attention interaction fusion framework for multimodal representation learning</i>
Siyun Wang	Guangxi Univ. of Science and Technology
Xisheng Dai	Guangxi Univ. of Science and Technology
Jin Cui	Jiangmen Central Hospital
Bao Feng	Guilin Univ. of Aerospace Technology
Enming Cui	Jiangmen Central Hospital
16:09-16:17	D7.4
1564	<i>Advancements in experimental paradigms for EEG-based intelligent emotion perception: A review</i>
Jin Feng	Guilin Normal College
Jing He	Guilin Univ. of Aerospace Technology
Junwei Huang	Guilin Normal College
Yunde Li	Guilin Univ. of Aerospace Technology
Chengliang Jiang	Guilin Univ. of Aerospace Technology
Bao Feng	Guilin Univ. of Aerospace Technology
16:17-16:25	D7.5
1648	<i>Ce-doped Sr_{0.5}Ba_{0.5}Fe₁₂O₁₉ hexaferrites with tailored electromagnetic parameters for broadband microwave absorption</i>
Shunkang Pan	Guilin Univ. of Aerospace Technology
Xing Liu	Hezhou Univ.
Lichun Cheng	Guilin Univ. of Electronic Technology
Shanlin Sun	Guilin Univ. of Aerospace Technology
16:25-16:33	D7.6
1718	<i>Bidirectional mutual-guided fusion of CT-pathology multi-source information for prognosis prediction in clear cell renal cell carcinoma</i>
Zhaole Yu	Guilin Univ. of Aerospace Technology
Changyi Ma	Jiangmen Central Hospital

Bao Feng	Guilin Univ. of Aerospace Technology	Astronautics
Jin Cui	Jiangmen Central Hospital	
Shike Long	Guangxi Key Laboratory of Low-Altitude Unmanned Autonomous Systems	
Yan Lei	Jiangmen Central Hospital	
Enming Cui	Jiangmen Central Hospital	
16:33-16:41	D7.7	
354 Flow field simulation and analysis of electrochemical 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	
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
Chair: 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	Yan Zhang	AVIC First Aircraft Design and Research Institute
Ning Yu	AVIC First Aircraft Design and Research Institute	Hang Chen	AVIC First Aircraft Design and Research Institute
Feihong Jiang	AVIC First Aircraft Design and Research Institute	Letian Zhao	AVIC First Aircraft Design and Research Institute
Tian Zhao	AVIC First Aircraft Design and Research Institute	Shimin Liu	AVIC First Aircraft Design and Research Institute
16:09-16:17	D8.4	Hao Li	AVIC First Aircraft Design and Research Institute
332 Automatic alignment of semi-physical platform design and experimental verification			
Zhengbo Zhu	AVIC First Aircraft Design and Research Institute	16:49-16:57	D8.9
Jiaju Wu	AVIC First Aircraft Design and Research Institute	663 Research on human-computer interaction design of civil aircraft flight control system	
16:17-16:25	D8.5	Wenjing Liao	AVIC First Aircraft Design and Research Institute
396 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	Xinhui Zhang	AVIC First Aircraft Design and Research Institute
Feihong Jiang	AVIC First Aircraft Design and Research Institute	16:57-17:05	D8.10
Xin Zhang	AVIC First Aircraft Design and Research Institute	833 Analysis of reset fault characteristics of MIL1394B bus and fault tolerance design of airborne system	
Mingjie Li	AVIC First Aircraft Design and Research Institute	Yueming Zhao	AVIC First Aircraft Design and Research Institute
16:25-16:33	D8.6	Hui Shen	AVIC First Aircraft Design and Research Institute
408 A precise trajectory control method for large aircraft without air incidence angle feedback			
Cihang Wu	AVIC Xi'an Flight Automatic Control Research Institute	Yingyi Bao	AVIC First Aircraft Design and Research Institute
Yang Meng	AVIC Xi'an Flight Automatic Control Research Institute	Min Zhang	AVIC First Aircraft Design and Research Institute
Erzhuo Niu	AVIC Xi'an Flight Automatic Control Research Institute	17:05-17:13	D8.11
Yuyan Cao	AVIC Xi'an Flight Automatic Control Research Institute	865 Path planning for UAV based on improved particle swarm optimization algorithm	
Ke Yu	AVIC Xi'an Flight Automatic Control Research Institute	Linhan He	AVIC First Aircraft Design and Research Institute
16:33-16:41	D8.7	17:13-17:21	D8.12
417 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	934 Research on the initial state of the flight control law fader	
Yinglong Wang	AVIC First Aircraft Design and Research Institute	Beilei Yang	AVIC First Aircraft Design and Research Institute
Hang Chen	AVIC First Aircraft Design and Research Institute	Yuxiang Zhang	AVIC First Aircraft Design and Research Institute
Shimin Liu	AVIC First Aircraft Design and Research Institute	17:21-17:29	D8.13
Letian Zhao	AVIC First Aircraft Design and Research Institute	1111 Design and implementation of an integrated control system for aircraft cockpit control devices	
16:41-16:49	D8.8	Linya Yang	AVIC First Aircraft Design and Research Institute
567 Task assignment for heterogeneous UAV swarm based on an improved multi-objective grey wolf optimization algorithm			
		Xiantong Chen	AVIC First Aircraft Design and Research Institute
		Zhenyun Shi	AVIC First Aircraft Design and Research Institute
		D9 2nd Floor Guilin Room 2	
		Multi-agent GNC 2层 桂林厅 2	
		Chair: Zirui Cheng	
		15:45-15:53	D9.1
		169 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	Research Institute AVIC First Aircraft Design and Research Institute	Yicong Li	AVIC First Aircraft Design and Research Institute
Zhiyu Li	AVIC First Aircraft Design and Research Institute	Shaoxin Ma	AVIC First Aircraft Design and Research Institute
Hao Li	AVIC First Aircraft Design and Research Institute	16:17-16:25	D9.5
Hou Lin	AVIC Xi'an Flight Automatic Control Research Institute	1257 <i>Dynamic attack task replanning for multi-UAV systems based on improved contract net protocol</i>	
Qiang Tang	AVIC First Aircraft Design and Research Institute	Guangen Gao	AVIC First Aircraft Design and Research Institute
Xianglun Zhang	AVIC First Aircraft Design and Research Institute	Guoda Cheng	AVIC First Aircraft Design and Research Institute
15:53-16:01	D9.2	Heng Zhang	AVIC First Aircraft Design and Research Institute
1076 <i>Research on fixed-wing target UAVs' tracking and distance maintenance task based on improved SAC method</i>		Shaoxian Ma	AVIC First Aircraft Design and Research Institute
Jinpeng Wang	AVIC Xi'an Flight Automatic Control Research Institute	Tianyu Huang	AVIC First Aircraft Design and Research Institute
Lin Hou	AVIC Xi'an Flight Automatic Control Research Institute	Baichuan Zhang	AVIC First Aircraft Design and Research Institute
Qiang Tang	AVIC Xi'an Flight Automatic Control Research Institute	Zirui Cheng	AVIC First Aircraft Design and Research Institute
Jinzhao Zhang	AVIC Xi'an Flight Automatic Control Research Institute	16:25-16:33	D9.6
Yukun Yang	AVIC Xi'an Flight Automatic Control Research Institute	1270 <i>Research on intelligent route planning algorithm based on value iteration network</i>	
Jiayun Wen	AVIC Xi'an Flight Automatic Control Research Institute	Yanwei Du	AVIC First Aircraft Design and Research Institute
Zhiyu Li	AVIC Xi'an Flight Automatic Control Research Institute	Shaoxian Ma	AVIC First Aircraft Design and Research Institute
Ling Zuo	AVIC Xi'an Flight Automatic Control Research Institute	Heng Zhang	AVIC First Aircraft Design and Research Institute
16:01-16:09	D9.3	Mingdong Qi	AVIC First Aircraft Design and Research Institute
1148 <i>MSCA-Unet: Lightweight U-Net network for sea ice semantic segmentation</i>		Zirui Cheng	AVIC First Aircraft Design and Research Institute
YiFan Ge	AVIC First Aircraft Design and Research Institute	16:33-16:41	D9.7
Li Su	Harbin Engineering Univ.	1315 <i>Real-time simulation system for UAV swarms based on container technology</i>	
Shaolong Song	AVIC First Aircraft Design and Research Institute	Yukun Yang	AVIC First Aircraft Design and Research Institute
Bowei Wang	AVIC Xi'an Flight Automatic Control Research Institute	Yongtao Peng	AVIC First Aircraft Design and Research Institute
Xiaole Xu	AVIC Xi'an Flight Automatic Control Research Institute	Wenqian Zhang	AVIC First Aircraft Design and Research Institute
16:09-16:17	D9.4	Shichao Ma	AVIC First Aircraft Design and Research Institute
1200 <i>An accelerated branch and bound algorithm for heterogeneous UAV task allocation under the mixed constraints</i>		Zhiyu Li	AVIC First Aircraft Design and Research Institute
Baichuan Zhang	AVIC First Aircraft Design and Research Institute	Jiayun Wen	AVIC First Aircraft Design and Research Institute
Guoliang Yang	AVIC First Aircraft Design and Research Institute	Jinpeng Wang	AVIC First Aircraft Design and Research Institute
Zirui Cheng	AVIC First Aircraft Design and Research Institute	Qiang Tang	AVIC First Aircraft Design and Research Institute
Tianyu Huang	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	16:41-16:49	D9.8
		1330 <i>Research on key technologies of FPGA modular</i>	

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

776 *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
16:01-16:09	D10.3

375 *An omnidirectional turn control law based on the gauss pseudospectral method*

Hongyu Zhao	Shanghai Electro-Mechanical Engineering Institute
Tianyu Zheng	Shanghai Electro-Mechanical Engineering Institute
Lin Qi	Shanghai Electro-Mechanical Engineering Institute
Xinpeng Xu	Shanghai Electro-Mechanical Engineering Institute
Zhijun Luo	Shanghai Academy of Spaceflight Technology
16:09-16:17	D10.4

424 *FOV-constrained cooperative coverage optimization for optimal mid-to-terminal handover point selection*

Haobo Xie	China Airborne Missile Academy
Yanke Xu	China Airborne Missile Academy
Long Wang	China Airborne Missile Academy
16:17-16:25	D10.5

473 *An image quality assessment algorithm based on perceptual tasks*

Siting Peng	Beijing Electro-Mechanical Engineering Institute
Hanyong Wang	Sichuan Univ.
Sichang Peng	Jiangnan Design Institute of Machinery and Electricity
Yuxiao Pei	Beijing Electro-Mechanical Engineering Institute
Chuang Song	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Jiajia Zhao	Beijing Electro-Mechanical Engineering Institute
16:25-16:33	D10.6

474 *A multi-sensor cooperative spatial configuration decision algorithm based on optimization of detection performance*

Siting Peng	Beijing Electro-Mechanical Engineering Institute
Sichang Peng	Jiangnan Design Institute of Machinery and Electricity
Hanyong Wang	Sichuan Univ.
Yuxiao Pei	Beijing Electro-Mechanical Engineering Institute
Chuang Song	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Jiajia Zhao	Beijing Electro-Mechanical Engineering Institute

16:33-16:41	D10.7
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608 *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*

Yicheng Zhou	Nanjing Univ. of Aeronautics and Astronautics
Hongyu Su	Nanjing Univ. of Aeronautics and Astronautics
Baichun Gong	Nanjing Univ. of Aeronautics and Astronautics

16:41-16:49	D10.8
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638 *Distributed nonlinear model predictive control based UAV-USV formation control*

Yaxuan Yin	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Mingrui Hao	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Xiaoyu Zhuang	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation

16:49-16:57	D10.9
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645 *强化学习的理论与发展趋势研究*

Sichan Xu	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Fengyi Li	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation

16:57-17:05	D10.10
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940 *Trajectory optimization and intelligent guidance for ascent phase of aerospace vehicles*

Jieming Li	Dalian Univ. of Technology
Shuaibin An	Dalian Univ. of Technology
Guan Wang	Dalian Univ. of Technology
Feng Yang	Dalian Univ. of Technology
Kai Liu	Dalian Univ. of Technology

17:05-17:13	D10.11
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1314 *Time-Series-Aware multi-agent reinforcement learning guidance for cooperative interception*

Siyu Li	Harbin Institute of Technology
Xinran Zhang	Harbin Institute of Technology
Yuhao Yan	Harbin Institute of Technology
Zhaochen Lin	Harbin Institute of Technology
Fenghua He	Harbin Institute of Technology

17:13-17:21	D10.12
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1383 *Multi-Agent path planning for Dubins vehicles via heading-evolution-guided MAPPO*

Jiashuai Si	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Hancchen Lu	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
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
1674 <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
Hang Zhang	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Mingrui Hao	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Xujun Guan	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Xiaomeng Bai	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
Tao Li	National Key Laboratory of Complex System Control and Intelligent Agent Cooperation
17:29-17:37	D10.14
1083 <i>Proactive interception and capture of tumbling targets via Koopman-based DAW-MPC</i>	
Ze Yang	Shanghai Aerospace System Engineering Institute
Guanglie Yang	Shanghai Aerospace System Engineering Institute
Xiaokun Liu	Shanghai Aerospace System Engineering Institute
Zongxiang Jin	Shanghai Aerospace System Engineering Institute
17:37-17:45	D10.15
1248 <i>Airborne gimbal control for moving target tracking: design and experiments via UDE-MPC</i>	
Qiuhan Chen	Harbin Institute of Technology
Shiyao Li	Harbin Institute of Technology
Rui Xing	Harbin Institute of Technology
Bohan Wu	Harbin Institute of Technology
Baoqing Yang	Harbin Institute of Technology
D12	2nd Floor Aisle
Poster Session	2 层连廊厅
Chair: Xiaobin Xu	
15:45-17:45	D12.1
1459 <i>XGrid-mapping: Explicit-implicit hybrid grid submaps for efficient incremental neural LiDAR mapping</i>	
Zeqing Song	Shanghai Jiao Tong Univ.
Zhongmiao Yan	Shanghai Jiao Tong Univ.
Junyuan Deng	The Hong Kong Univ. of Science and Technology
Songpengcheng Xia	Shanghai Jiao Tong Univ.
Xiang Mu	Horizon Robotics Inc.
Qi Wu	ByteDance Inc.

Ling Pei	Shanghai Jiao Tong Univ.
15:45-17:45	D12.2
1574 <i>SemGeoNav: A safety-guided visual navigation approach with semantic reasoning and geometric planning</i>	
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
15:45-17:45	D12.3
386 <i>Robust visual-inertial odometry using learning-based features for embedded platforms</i>	
Yuhang Zhang	Beijing Institute of Technology
Yuanchao Qiu	Beijing Institute of Technology
Yan Yang	Beijing Institute of Technology
Haikuo Liu	Beijing Institute of Technology
Changkun Du	Intelligent Science and Technology Academy Limited, CASIC
Zhen Li	Beijing Institute of Technology
15:45-17:45	D12.4
415 <i>Perception-aware trajectory and yaw optimization for UAVs in unknown weak-texture environments</i>	
Yan Yang	Beijing Institute of Technology
Ting Zhang	Beijing Institute of Technology
Yuanchao Qiu	Beijing Institute of Technology
Yuhang Zhang	Beijing Institute of Technology
Haikuo Liu	Beijing Institute of Technology
Changkun Du	Intelligent Science and Technology Academy Limited, CASIC
Zhen Li	Beijing Institute of Technology
15:45-17:45	D12.5
510 <i>Optimal slip ratio fuzzy estimation algorithm based on information-gated and multi-time-scale memory fusion</i>	
He Zheng	Beijing Institute of Technology
Xuefei Mao	Beijing Institute of Technology
Zhen Li	Beijing Institute of Technology
15:45-17:45	D12.6
286 <i>Non-singular fast terminal sliding-mode fault-tolerant attitude control for small size unmanned helicopter</i>	
Aochen Ma	Tianjin Univ.
Bin Xian	Tianjin Univ.
15:45-17:45	D12.7
321 <i>Predefined-time longitudinal tracking control for morphing hypersonic aircraft under external disturbances</i>	
Yuanhang Yang	Tianjin Univ. of Technology
Yuehui Ji	Tianjin Univ. of Technology
Junjie Liu	Tianjin Univ. of Technology
Xuwen Zhao	Tianjin Univ. of Technology
Qiang Gao	Tianjin Univ. of Technology
15:45-17:45	D12.8
433 <i>Hierarchical reinforcement learning with adaptive self-play for multi-UCAV cooperative air combat</i>	
Haoming Dou	Tianjin Univ. of Technology
Bingcong Zou	Tianjin Univ. of Technology
Yuehui Ji	Tianjin Univ. of Technology
Jiayun Ni	Tianjin Univ. of Technology
Junjie Liu	Tianjin Univ. of Technology

15:45-17:45	D12.9	Yuting Dai	Army Engineering Univ. of PLA
602 <i>Multi-UAV suspension system control based on actor-critic algorithm</i>		Jingxian Wang	Shanghai Univ.
Ruoxin Sun	Tianjin Univ. of Technology	Bing Xu	Army Engineering Univ. of PLA
Fengxiao Zhang	State Grid Tianjin Electric Power Company	Tingting Bai	Army Engineering Univ. of PLA
Tian Xie	Tianjin Univ. of Technology	Peng Xu	Army Engineering Univ. of PLA
Jigang Tong	Tianjin Univ. of Technology	15:45-17:45	D12.17
Sen Yang	Tianjin Univ. of Technology	818 <i>基于单一腕式设备的神经惯性定位方法</i>	
15:45-17:45	D12.10	Shiyu Bai	The Hong Kong Polytechnic Univ.
494 <i>Error suppression method for HRG inertial navigation system based on combined modulation of single-axis rotation and virtual rotation</i>		Jingxian Wang	Shanghai Univ.
Yutao Wu	National Univ. of Defense Technology	15:45-17:45	D12.18
Hongjie Meng	National Univ. of Defense Technology	915 <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>	
Qixin Lou	National Univ. of Defense Technology	Jiangfeng Huang	Chongqing Univ. of Posts and Telecommunications
Huiping Li	National Univ. of Defense Technology	Jingxian Wang	Shanghai Univ.
Chao Liu	National Univ. of Defense Technology	Feifan Lin	The Hong Kong Polytechnic Univ.
Tian Lan	National Univ. of Defense Technology	Yue Yu	The Hong Kong Polytechnic Univ.
Xudong Yu	National Univ. of Defense Technology	15:45-17:45	D12.19
15:45-17:45	D12.11	1391 <i>Uncertainty-aware LiDAR traversability estimation in off-road environments</i>	
828 <i>Robust filtering for SINS/GNSS integrated navigation using multiple fading factors and robust weighting</i>		Haoran Wang	Tianjin Univ.
Jiaxi Guo	Chengdu Univ.	Hongyue Li	Tianjin Univ.
Li Luo	Chengdu Univ.	Rui Song	Tianjin Univ.
Ling Luo	Chengdu Univ.	15:45-17:45	D12.20
Yidong Shen	Chengdu Univ.	1673 <i>A lightweight bilateral feature fusion module for dual-branch real-time semantic segmentation</i>	
15:45-17:45	D12.12	Zhuwei Liu	Tianjin Univ.
885 <i>Suppression of environmental disturbances and intrinsic noise in fiber-optic gyroscopes via a fused dual-coil configuration</i>		Mingxi Song	Tianjin Univ. of Technology
Zihan Gao	Central South Univ.	Rui Song	Tianjin Univ.
YanJun Chen	Central South Univ.	15:45-17:45	D12.21
Lin Xu	Central South Univ.	181 <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>	
Hao Jiang	Central South Univ.	Rui Wang	Civil Aviation Univ. of China
Wenbo Wang	Peking Univ.	Lianwei Sun	Civil Aviation Univ. of China
Zhengbin Li	Peking Univ.	Jiajun Lian	Civil Aviation Univ. of China
15:45-17:45	D12.13	Kaixin Yang	Tianjin College, Univ. of Science and Technology Beijing
952 <i>Robust extended target tracking based on Markov switching mixture</i>		Hui Sun	Civil Aviation Univ. of China
Guoqing Wang	China Univ. of Mining and Technology	15:45-17:45	D12.22
Xinxin Gu	China Univ. of Mining and Technology	552 <i>A two-layer trajectory planning framework for UAVs combining TAD-RRT* and kinematic-constrained smoothing</i>	
15:45-17:45	D12.14	Xin Sun	Civil Aviation Univ. of China
1733 <i>The inertial/visual asynchronous fusion algorithm for UAV under GNSS-denial environments and flight verification</i>		Lianxu Zhao	Civil Aviation Univ. of China
Huiqing Sun	Harbin Engineering Univ.	Runqi Chai	Beijing Institute of Technology
Ziqiang Wang	Harbin Engineering Univ.	Senchun Chai	Beijing Institute of Technology
Zhongxing Gao	Harbin Engineering Univ.	15:45-17:45	D12.23
15:45-17:45	D12.15	1335 <i>Research on belief control methods for manned robot based on reinforcement learning</i>	
209 <i>Agile trajectory tracking of quadrotor with suspended payload via PSO-based nonlinear control</i>		Jiting Xue	Civil Aviation Univ. of China
Xun Gu	Guiyang Univ.	Qingji Gao	Civil Aviation Univ. of China
Qiang Guo	Guiyang Univ.	Yuqi Zhang	Civil Aviation Univ. of China
Bin Xian	Tianjin Univ.	15:45-17:45	D12.24
15:45-17:45	D12.16	1350 <i>A vision-guided staged autonomous docking method for wheeled robots</i>	
530 <i>Flight risk assessment for UAV free flight based on actual navigation performance</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

1374 融合感受野注意力与动态采样的 YOLOv12 多目标检测方法

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

196 *Model correction method based on physics-informed Kolmogorov-Arnold network for flying-wing UAV*

Ming Yan	Dalian Univ. of Technology
Heqi Li	AVIC Shenyang Aircraft Design and Research Institute
Qingfeng Zhao	Dalian Univ. of Technology
Kai Liu	Dalian Univ. of Technology

15:45-17:45 D12.27

643 *Nonsingular terminal sliding mode control for the descent phase of hypersonic reentry vehicles*

Shuowen Lan	Dalian Univ. of Technology
Dapeng Yang	AVIC Shenyang Aircraft Design and Research Institute
Jianan Qin	AVIC Shenyang Aircraft Design and Research Institute
Shuo Pan	AVIC Shenyang Aircraft Design and Research Institute
Guan Wang	Dalian Univ. of Technology
Yuefang Wang	Dalian Univ. of Technology

15:45-17:45 D12.28

708 *State estimation of flexible hypersonic vehicles using optimal sensor placement and Kalman filter*

Cong Luo	Dalian Univ. of Technology
Yu Zhang	AVIC Chengdu Aircraft Design and Research Institute
Guan Wang	Dalian Univ. of Technology
Xi Cheng	AVIC Chengdu Aircraft Design and Research Institute
Qiang Min	AVIC Chengdu Aircraft Design and Research Institute

15:45-17:45 D12.29

711 *Data-driven robust adaptive control for flexible hypersonic vehicles*

Ming Li	Dalian Univ. of Technology
Dapeng Yang	AVIC Shenyang Aircraft Design and Research Institute
Honglin Liu	Dalian Univ. of Technology
Guan Wang	Dalian Univ. of Technology
Kai Liu	Dalian Univ. of Technology

15:45-17:45 D12.30

930 *A handling qualities evaluation method for air-breathing hypersonic vehicles in the climb phase*

Peinan Ren	Dalian Univ. of Technology
Honglin Liu	Dalian Univ. of Technology
Shuaibin An	Dalian Univ. of Technology
Feng Yang	Dalian Univ. of Technology
Guan Wang	Dalian Univ. of Technology
Kai Liu	Dalian Univ. of Technology

15:45-17:45 D12.31

998 *Neural longitudinal control for flexible hypersonic vehicles*

with variable geometry inlet

Renke He	Dalian Univ. of Technology
Xi Cheng	AVIC Chengdu Aircraft Design and Research Institute
Guan Wang	Dalian Univ. of Technology
Yu Zhang	AVIC Chengdu Aircraft Design and Research Institute
Qiang Min	AVIC Chengdu Aircraft Design and Research Institute

15:45-17:45 D12.32

1231 *A cross-sea current compensation method for SINS/DVL integrated navigation*

Zhenli Ju	Zhengzhou Univ.
Peijia Liu	Zhengzhou Univ.
Guanghua Li	713 Research Institute of CSSC
Kai Wang	713 Research Institute of CSSC
Yifan Zhang	Tianjin Zhihui Ocean Technology Co., Ltd.

15:45-17:45 D12.33

1033 *Dynamic task scheduling for spacecraft based on Q-learning and load balancing*

Linhao Wang	Nanjing Univ. of Aeronautics and Astronautics
Ziquan Yu	Nanjing Univ. of Aeronautics and Astronautics
Youmin Zhang	Concordia Univ.

15:45-17:45 D12.34

1035 *Distributed fault-tolerant formation control of multiple fixed-wing UAVs under communication loss*

Xiangyang Yuan	Nanjing Univ. of Aeronautics and Astronautics
Ziquan Yu	Nanjing Univ. of Aeronautics and Astronautics
Youmin Zhang	Concordia Univ.

15:45-17:45 D12.35

1041 *Fault-tolerant decision-making for target redistribution of clustered unmanned aerial vehicles under multiple constraints*

Ruihan Zhu	Nanjing Univ. of Aeronautics and Astronautics
Ziquan Yu	Nanjing Univ. of Aeronautics and Astronautics
Youmin Zhang	Concordia Univ.

15:45-17:45 D12.36

1619 *Safe docking strategy for UAV aerial refueling with hose whipping suppression*

Wenbi Zhao	Xi'an Technological Univ.
Ying Zhao	Northwestern Polytechnical Univ.
Ziquan Yu	Nanjing Univ. of Aeronautics and Astronautics
Yaohong Qu	Northwestern Polytechnical Univ.

15:45-17:45 D12.37

188 *Global performance-guaranteed optimized control of quadrotor UAVs via ESO-based disturbance compensation*

Zetao Cheng	Anhui Univ. of Technology
Hao Shen	Anhui Univ. of Technology
Zhengguo Huang	Anhui Univ. of Technology
Ce Wang	Anhui Univ. of Technology

Shaoyu Lv	Anhui Univ. of Technology	1091 Full-mode flight control framework for a ducted-fan tail-sitter UAV	
Feng Li	Anhui Univ. of Technology	Chaoheng Meng	South China Univ. of Technology
15:45-17:45	D12.38	Hailong Pei	South China Univ. of Technology
235 A model-free policy iteration algorithm for discrete-time stochastic linear quadratic optimal control problem		Zihuan Cheng	Guangdong Univ. of Technology
Ruining Wang	Shandong Univ. of Science and Technology	Qingxi Tang	Guangdong Univ. of Technology
Hongji Ma	Shandong Univ. of Science and Technology	15:45-17:45	D12.45
Zhen Wang	Shandong Univ. of Science and Technology	1122 An FPGA-accelerated stereo visual SLAM front-end for UAV navigation	
15:45-17:45	D12.39	Na Xing	South China Univ. of Technology
369 Output feedback sliding mode-based admissibility for uncertain singular fractional-order systems and its application to circuits and systems		Hailong Pei	South China Univ. of Technology
Yunrui Zhang	Shandong Univ. of Science and Technology	15:45-17:45	D12.46
Shubin Song	Shandong Univ. of Science and Technology	1171 Predefined time control for non-conventional aerial with input saturation	
Feng Wang	Shandong Univ. of Science and Technology	Shuo Li	Shanghai Polytechnic Univ.
Bo Meng	Shandong Univ. of Science and Technology	Zihuan Cheng	Guangdong Univ. of Technology
Zhen Wang	Shandong Univ. of Science and Technology	15:45-17:45	D12.47
15:45-17:45	D12.40	1232 6D pose estimation for UAVs using UWB range and direction-of-arrival measurements	
540 Sliding mode security control for networked singular systems against DoS attacks		Dongsheng Zhao	Electric Power Research Institute of Guangdong Power Grid Co., Ltd.
Xuetong Zhang	Liaocheng Univ.	Huanting Ye	South China Univ. of Technology
Zihan Zhao	Liaocheng Univ.	Hailong Pei	South China Univ. of Technology
Zhihao Wang	Liaocheng Univ.	15:45-17:45	D12.48
Jingyang Yu	Liaocheng Univ.	1303 基于神经网络补偿的涵道无人机系统辨识	
Mengke Zhou	Liaocheng Univ.	Peiye Huang	South China Univ. of Technology
Mengjia Li	Liaocheng Univ.	Hailong Pei	South China Univ. of Technology
Xiaodan Du	Liaocheng Univ.	Chaoheng Meng	South China Univ. of Technology
Xuefei Bai	Liaocheng Univ.	Qiquan Cui	South China Univ. of Technology
Guangming Zhuang	Liaocheng Univ.	15:45-17:45	D12.49
15:45-17:45	D12.41	1530 Improvement and application of the Harmony SE modeling process for flight control systems	
871 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		Zheng Zhang	Shanghai Dianji Univ.
Xinru Liu	Liaocheng Univ.	Liang Zhu	Shanghai Dianji Univ.
Jianwei Xia	Liaocheng Univ.	Xichao Wang	Shanghai Dianji Univ.
15:45-17:45	D12.42	Jie Fang	Shanghai Maritime Univ.
1047 Distributed stochastic event-triggered optimal coordination for uncertain nonlinear multi-agent systems with coupling constraints		Xiaobin Hao	Shanghai Dianji Univ.
Huarong Yue	Liaocheng Univ.	15:45-17:45	D12.50
Jianwei Xia	Liaocheng Univ.	451 A robust end-to-end navigation method for autonomous vehicles based on Vision Transformer	
15:45-17:45	D12.43	Zheng Yang	The Hong Kong Univ. of Science and Technology (Guangzhou)
1251 Adaptive anti-vibration boundary control for a moving helicopter flexible slung-load system with intermittent actuator faults		Kefan Jin	Shanghai Jiao Tong Univ.
Yihua Gao	Henan Univ. of Science and Technology	Haoang Li	The Hong Kong Univ. of Science and Technology (Guangzhou)
Danjing Zheng	Henan Univ. of Science and Technology	Zhe Liu	Shanghai Jiao Tong Univ.
Shuai Song	Henan Univ. of Science and Technology	15:45-17:45	D12.51
Xiaona Song	Henan Univ. of Science and Technology	1273 SeqAssign: Batch task chaining in shuttle-based multi-robot systems via sequence-constrained assignment	
15:45-17:45	D12.44	Jieshi Xu	Shanghai Jiao Tong Univ.
		Jinbao Xu	Anhui Heli Co., Ltd.
		Xingyao Han	Shanghai Jiao Tong Univ.
		Zhe Liu	Shanghai Jiao Tong Univ.
		15:45-17:45	D12.52
		1277 Risk-constrained heterogeneous multi-agent reinforcement learning for electronic warfare collaborative coverage	

Yunlei Wang	Shanghai Jiao Tong Univ.	Caizhi Fan	National Univ. of Defense Technology
Jinxuan Shi	Shanghai Jiao Tong Univ.	Zikai Zhong	National Univ. of Defense Technology
Fei Wang	Southwest China Research Institute of Electronic Equipment	Xinchen Li	National Univ. of Defense Technology
Liang Li	Southwest China Research Institute of Electronic Equipment	15:45-17:45	D12.60
Qian Su	Southwest China Research Institute of Electronic Equipment	1547 <i>Multi-loop robust control for single-axis satellite attitude with moment of inertia parameter variations</i>	
Zhe Liu	Shanghai Jiao Tong Univ.	Li Zhang	National Univ. of Defense Technology
15:45-17:45	D12.53	15:45-17:45	D12.61
1577 <i>FedDETR: A federated object detection framework for infrastructure-assisted indoor robots</i>		96 基于容错卡尔曼滤波的无人机相对定位方法	
Weizhao Qian	Dalian Jiaotong Univ.	He Song	Xi'an Aeronautical Univ.
Xuesong Zhang	Dalian Jiaotong Univ.	Youjian Zhang	Xi'an Technological Univ.
15:45-17:45	D12.54	Rui Zhang	China Flight Test Establishment
1618 <i>Attention-enhanced hierarchical reinforcement learning for evasion decision-making under adversarial maritime tracking</i>		Chaobo Chen	Xi'an Technological Univ.
Changjun Hu	Shanghai Marine Electronic Equipment Research Institute	Hao Fan	Xi'an Technological Univ.
Chang Zhou	Shanghai Marine Electronic Equipment Research Institute	Zhong Li	Xi'an Aeronautical Univ.
Anqi Guo	Shanghai Jiao Tong Univ.	Zhi Wang	AVIC Xi'an Flight Automatic Control Research Institute
Yunlei Wang	Shanghai Jiao Tong Univ.	15:45-17:45	D12.62
Zhe Liu	Shanghai Jiao Tong Univ.	1575 基于改进 SOM 的多无人机协同目标分配路径规划	
15:45-17:45	D12.55	Jiaoru Huang	Xi'an Technological Univ.
706 <i>Robust tube control for strict repeat ground track maintenance of low-Earth-orbit satellites under execution uncertainty</i>		YanJun Zhou	Xi'an Technological Univ.
Jiawei Wang	Sun Yat-sen Univ.	Chaobo Chen	Xi'an Technological Univ.
Bingqi Li	Sun Yat-sen Univ.	Yushuang Liu	Beijing System Design Institute of Electro-mechanic Engineering
Xianqiang Luo	Sun Yat-sen Univ.	15:45-17:45	D12.63
JiHe Wang	Sun Yat-sen Univ.	877 面向 PAPI 灯校验的绳驱系留无人机自抗扰控制方法	
15:45-17:45	D12.56	Yapeng Wang	Civil Aviation Univ. of China
800 <i>Constellation multi-objective optimal design method based on target grouping and mixed RGT orbit types</i>		Xuqiao Wang	Civil Aviation Univ. of China
Dan Li	Sun Yat-sen Univ.	15:45-17:45	D12.64
Tianjie Liu	Sun Yat-sen Univ.	1198 基于偏差约束位姿锚定的航拍图像快速拼接算法	
Chenglong Xu	Sun Yat-sen Univ.	Qijun Luo	Civil Aviation Univ. of China
JiHe Wang	Sun Yat-sen Univ.	Jiaqi Shao	Civil Aviation Univ. of China
15:45-17:45	D12.57	Yipei Wang	Civil Aviation Univ. of China
1126 <i>Fencing control of heterogeneous Euler-Lagrange swarms with application to satellite formation</i>		Ziyi Zhou	Civil Aviation Univ. of China
Zengning Lai	Sun Yat-sen Univ.	15:45-17:45	D12.65
Cheng Liu	Sun Yat-sen Univ.	1341 <i>LSE-YOLOv11: Navigation light pollutant identification based on an enhanced YOLOv11 approach</i>	
Peipei Jin	Sun Yat-sen Univ.	Dandan Hu	Civil Aviation Univ. of China
Fan Zhang	Sun Yat-sen Univ.	Zhitao Ouyang	Civil Aviation Univ. of China
15:45-17:45	D12.58	Guochen Niu	Civil Aviation Univ. of China
1337 <i>Neural network disturbance observation for spacecraft pursuit-evasion relative motion estimation</i>		15:45-17:45	D12.66
Liwei Hao	National Univ. of Defense Technology	1344 <i>RBC-DETR: An enhanced real-time detector for small object detection in airfield areas</i>	
Caizhi Fan	National Univ. of Defense Technology	Guochen Niu	Civil Aviation Univ. of China
Li Zhang	National Univ. of Defense Technology	Hui Xu	Civil Aviation Univ. of China
15:45-17:45	D12.59	Xiangyu Sun	Shandong Airport Management Group Yantai International Airport Co.,Ltd
1364 <i>Model predictive control for approach of tumbling non-cooperative targets under multiple constraints</i>		15:45-17:45	D12.67
Pengxi Fan	National Univ. of Defense Technology	1346 <i>An algorithm for detecting crowds in airport terminals based on an improved YOLOv11n model</i>	
Liwei Hao	National Univ. of Defense Technology	Dandan Hu	Civil Aviation Univ. of China
		Wenshuo Ding	Civil Aviation Univ. of China
		Guochen Niu	Civil Aviation Univ. of China
		15:45-17:45	D12.68
		1471 <i>Whirl flutter analysis in different flight modes of tiltrotor aircraft</i>	

Mingchun Wang	Guangdong Univ. of Technology
Ruilan Chang	Guilin Univ. of Aerospace Technology
Yongjun Wang	Guilin Univ. of Aerospace Technology
15:45-17:45	D12.69
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.
15:45-17:45	D12.70
1168 A fuzzy variable structure-based method for rapid overload command tracking of supersonic aircraft	
Junwei Lei	Naval Aviation Univ.
Heng Li	Naval Aviation Univ.
Lingling Wang	Naval Aviation Univ.
Yuliang Cheng	Naval Aviation Univ.
15:45-17:45	D12.71
1218 Multi-UAV cooperative target encirclement based on extrinsic-intrinsic reward MADDPG reinforcement learning	
Qiwen Wang	Naval Aviation Univ.
Zhikai Xiao	Naval Aviation Univ.
Bei Qian	Naval Aviation Univ.
Defeng Sun	Naval Aviation Univ.
15:45-17:45	D12.72
1396 多无人机协同在线航迹规划	
Gaoyang Yi	Naval Aviation Univ.
Zhikai Xiao	Naval Aviation Univ.
Luyu Liu	Naval Aviation Univ.
15:45-17:45	D12.73
1407 Fuzzy-based dynamic event-triggered formation control of manned-unmanned aerial team with prescribed-time	
Ning Wang	Naval Aviation Univ.
Zehao Yuan	Naval Aviation Univ.
Jianhua Lu	Naval Aviation Univ.
Xiaolin Wang	Naval Aviation Univ.
15:45-17:45	D12.74
1416 Fault-tolerant formation control of multi-UAV systems based on distributed augmented state observer under jointly connected topologies	
Bei Qian	Naval Aviation Univ.
Xianjun Shi	Naval Aviation Univ.
Zhikai Xiao	Naval Aviation Univ.
Gaoyang Yin	Naval Aviation Univ.
Defeng Sun	Naval Aviation Univ.
Qiwen Wang	Naval Aviation Univ.
15:45-17:45	D12.75
503 State-dependent guidance and control for high-spinning flight vehicles	
Xinye Zhang	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
Yingxin Liu	Beijing Institute of Technology
Zhengyu Wu	Beijing Institute of Technology
15:45-17:45	D12.76
742 A LiDAR-based integrated navigation and formation maintenance method for UAV swarms	
Qinglan Tu	Beijing Institute of Technology

Kai Shen	Beijing Institute of Technology
Yuxuan Duan	Beijing Institute of Technology
Hao Zhang	Beijing Institute of Technology
Zihao Wei	Beijing Institute of Technology
Xuan Xiao	Beijing Institute of Technology
15:45-17:45	D12.77
773 A dynamic task allocation method of UAV swarms based on semantic-driven control of LLMs	
Zihao Wei	Beijing Institute of Technology
Hao Zhang	Beijing Institute of Technology
Yiheng Yang	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
Xuan Xiao	Beijing Institute of Technology
15:45-17:45	D12.78
950 Ballistics-knowledge guided optical array measurement for high-spinning flight vehicle tests	
Jiatong Wu	Beijing Institute of Technology
Haocheng Peng	Beijing Institute of Technology
Meng Zhang	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
15:45-17:45	D12.79
1001 A synergetic consensus framework for tracking and terminal guidance of swarm drones	
Zheng Xu	Beijing Institute of Technology
Hang Xiao	Beijing Institute of Technology
Hao Zhang	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
15:45-17:45	D12.80
1009 A robust multi-sensor data fusion algorithm for high-spinning flight vehicles	
Mengzhuo Xu	Beijing Institute of Technology
Xinye Zhang	Beijing Institute of Technology
Yanxing Xu	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
15:45-17:45	D12.81
1110 A dynamic roll-isolation model for dual-spinning projectiles	
Meng Zhang	Beijing Institute of Technology
Jiatong Wu	Beijing Institute of Technology
Mengzhuo Xu	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
15:45-17:45	D12.82
1163 Physics-informed effective horizontal wind-context identification for high-spinning flight vehicles	
Haocheng Peng	Beijing Institute of Technology
Mengzhuo Xu	Beijing Institute of Technology
Xinrui Luo	Beijing Institute of Technology
Kai Shen	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
15:45-17:45	D12.83
1285 Trajectory-based platform recognition of rotary-wing-like and fixed-wing-like UAVs for low-altitude surveillance	
Junhan Zhang	Nanjing Univ. of Science and Technology
Liangming Wang	Nanjing Univ. of Science and Technology
Jian Fu	Nanjing Univ. of Science and Technology

Zhi Chen	Shanghai Univ.
Jinghao Gong	Nanjing Univ. of Science and Technology
15:45-17:45	D12.84
1411 Attitude control method for missile-borne coaxial UAV based on NTSMC	
Yiwei Zhang	Nanjing Univ. of Science and Technology
Jian Fu	Nanjing Univ. of Science and Technology
Zhi Chen	Shanghai Univ.
Kailai Hao	Nanjing Univ. of Science and Technology
15:45-17:45	D12.85
1506 UAV target recognition algorithm based on a lightweight 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 Shiyu 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.	Tongchen Wang	Institute of Acoustics, Chinese Academy of Sciences
Jin Qi	Xidian Univ.	Ziwei Zhao	Institute of Acoustics, Chinese Academy of Sciences
Dongzhu Feng	Xidian Univ.		
Pei Dai	Xidian Univ.		
15:45-17:45	D12.100	15:45-17:45	D12.108
1613 <i>Modular integration method for modular microsatellite components</i>		624 <i>Complex network modeling of interdependent sensors and control systems in flight control systems</i>	
Hao Zhang	Northwestern Polytechnical Univ.	Shuo Wang	Beijing Technology and Business Univ.
Guanghui Liu	Northwestern Polytechnical Univ.	Xiaoyu Cui	Beijing Technology and Business Univ.
Jun Zhou	Northwestern Polytechnical Univ.	Zhiyao Zhao	Beijing Technology and Business Univ.
15:45-17:45	D12.101	Li Wang	Beijing Technology and Business Univ.
223 <i>Dynamic Allan variance-based noise characterization of MHD angular rate sensors</i>		15:45-17:45	D12.109
Cui Guo	Tiangong Univ.	416 <i>Fully adaptive fixed-time control of underwater manipulators considering asymmetric actuator saturation and unknown time-varying hydrodynamic disturbances</i>	
Yue Ji	Tiangong Univ.	Linfeng Chen	Nantong Univ.
15:45-17:45	D12.102	Shiyi Li	Nantong Univ.
791 <i>Cooperative encirclement of multi-agent systems in cross-domain environments based on MADDPG-CH</i>		Yelu Gu	Nantong Univ.
Fen Zhao	Tiangong Univ.	Qiuyue Qin	Nantong Univ.
Xin Liu	Tiangong Univ.	Xingjian Sun	Nantong Univ.
Ditai Wang	Tiangong Univ.	15:45-17:45	D12.110
Chenyang Yao	Tiangong Univ.	450 <i>UAV path planning based on adaptive chaotic turbulent particle swarm optimization</i>	
Hui Xiong	Tiangong Univ.	Shiyi Li	Nantong Univ.
15:45-17:45	D12.103	Linfeng Chen	Nantong Univ.
1292 <i>Safe path planning based on JPS-PFDWA algorithm for quadrotor helicopters in dynamic environments</i>		Xinyi Lu	Nantong Univ.
Jianchuan Guo	Tiangong Univ.	Liwang Huang	Nantong Univ.
Yifan Li	Tiangong Univ.	Xingjian Sun	Nantong Univ.
Yufan Shi	Tiangong Univ.	15:45-17:45	D12.111
Yafang Yang	Tiangong Univ.	1127 <i>Physics-constrained deep reinforcement learning for efficient, low-carbon, and reliable operation of data center microgrids</i>	
15:45-17:45	D12.104	Shen Li	Nanjing Univ. of Posts and Telecommunications
629 <i>Apollonius-based deployment strategies in multi-agent reach-avoid games</i>		Leyi Xu	Nanjing Univ. of Posts and Telecommunications
Liang Huang	Beihang Univ.	Yunqi Wang	Nanjing Univ. of Posts and Telecommunications
Xuwen Chen	Systems Engineering Research Institute, CSSC	15:45-17:45	D12.112
Zilu Chen	Beihang Univ.	1205 <i>Adaptive deployment and rapid response for multi-UAVs assisted maritime ISAC network</i>	
Liang Han	Beihang Univ.	Aoji Zhang	Zhengzhou Univ.
15:45-17:45	D12.105	Meng Liu	Zhengzhou Univ.
951 <i>Observability-aware trajectory optimization for monocular vision-based UAV interception</i>		Hongyan Dui	Zhengzhou Univ.
Guojun Shen	Beihang Univ.	Dongming Fan	Beihang Univ.
Zilu Chen	Beihang Univ.	15:45-17:45	D12.113
Liang Han	Beihang Univ.	1714 <i>Time-energy trade-offs in fixed-wing multi-UAV formation reconfiguration</i>	
15:45-17:45	D12.106	Wenliang Zhang	Beihang Univ.
1146 <i>Large language model-driven threat assessment and multi-UAV task allocation</i>		Xingshuo Hai	Beihang Univ.
Junhao Zhang	Beihang Univ.	Xing Guo	Beihang Univ.
Zilu Chen	Beihang Univ.	Qiang Feng	Beihang Univ.
Liang Han	Beihang Univ.	Zili Wang	Beihang Univ.
15:45-17:45	D12.107	15:45-17:45	D12.114
426 <i>Integrated acoustic positioning and adaptive control for unmanned underwater vehicles with uncertainty</i>		627 <i>Reinforcement learning-assisted artificial hummingbird algorithm for drone path planning in urban environments</i>	
Dong Liu	Institute of Acoustics, Chinese Academy of Sciences	Xiaoyang Jin	Central South Univ.
Zhaohui Peng	Institute of Acoustics, Chinese Academy of Sciences		

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
656 <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
808 <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
1507 <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
1654 <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
1476 <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.
Wenying Xu	Southeast Univ.
Xia Wu	Southeast Univ.
15:45-17:45	D12.120
1484 <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.
Wenying Xu	Southeast Univ.
15:45-17:45	D12.121
1679 <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
770 <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
782 <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
Youmin Zhang	Concordia Univ.
Lingxia Mu	Xi'an Univ. of Technology
15:45-17:45	D12.124
783 <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
Youmin Zhang	Concordia Univ.
Lingxia Mu	Xi'an Univ. of Technology
15:45-17:45	D12.125
841 <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
1197 <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
1483 <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
1525 <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
296 <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
805 <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
15:45-17:45	D12.131
1308 <i>Hierarchical RL-adaptive MPC-CBF for safe navigation in narrow passages</i>	
Jiatao Hu	Nanjing Univ. of Aeronautics and Astronautics
Weizheng Cheng	National Key Laboratory of Avionics Integration and Aviation System-of-Systems Synthesis
Xiuhui Peng	Nanjing Univ. of Aeronautics and Astronautics
Lei Cui	Univ. of Science and Technology Beijing
15:45-17:45	D12.132
1680 <i>Three-dimensional urban UAV path planning based on chaotic particle swarm optimization algorithm</i>	
Jin Xing	Shandong Univ. of Aeronautics
Zhixiang Sun	Shandong Univ. of Aeronautics
Xianli Yu	Jilin Univ.
Fangfang Zhang	Qilu Univ. of Technology (Shandong Academy of Sciences)
Haikun Wang	Shandong Univ. of Aeronautics
Xinxue Zhao	Shandong Univ. of Aeronautics
15:45-17:45	D12.133
425 <i>An actuator-constrained impact-time-and-angle guidance law via variable-gain geometry and CLF correction</i>	
Ruihan Hou	Univ. of Sanya
Xueyong Ding	Univ. of Sanya
15:45-17:45	D12.134
1505 <i>On distributed integrated flight/propulsion control for V/STOL aircraft</i>	
Mingyuan Yang	Tsinghua Univ.
Shengyi Liu	Tsinghua Univ.
Feng Xu	Tsinghua Univ.
Hao Xu	Tsinghua Univ.
Jihong Zhu	Tsinghua Univ.
Xiangyang Wang	Tsinghua Univ.
15:45-17:45	D12.135
1541 η -spectral control barrier functions: Computation-geometry duality for fixed-time envelope protection of STOVL aircraft	
Hao Xu	Tsinghua Univ.
Shengyi Liu	Tsinghua Univ.
Feng Xu	Tsinghua Univ.
Mingyuan Yang	Tsinghua Univ.
Jihong Zhu	Tsinghua Univ.

Xiangyang Wang	Tsinghua Univ.
15:45-17:45	D12.136
641 <i>An improved invasive weed optimization framework for cooperative UAV path planning in complex surveillance environments</i>	
Qisong Han	Air Force Engineering Univ.
Xiaofan Hou	Air Force Engineering Univ.
Danya Liang	Air Force Engineering Univ.
Jixiang Tao	Air Force Engineering Univ.
Yan Lv	Air Force Engineering Univ.
15:45-17:45	D12.137
1710 <i>A SysML-Modelica co-modeling and simulation method based on DDS communication</i>	
Bingda Tong	Chinese Aeronautical Establishment
Jing He	Chinese Aeronautical Establishment
Jiaqiang Zhu	Chinese Aeronautical Establishment
15:45-17:45	D12.138
468 <i>Impact speed and angle constrained guidance law under drag uncertainty for gliding vehicle</i>	
Xinwan Kong	Shanghai Mechanical and Electrical Engineering Institute
Jin Huang	Shanghai Mechanical and Electrical Engineering Institute
Changyu Bi	Beijing Institute of Technology
Tingneng Fu	Shanghai Mechanical and Electrical Engineering Institute
15:45-17:45	D12.139
506 <i>Obstacle avoidance trajectory planning for Mars landing based on graphs of convex sets</i>	
Chunzheng Guo	Harbin Institute of Technology
Honglong Kang	Beijing Aerospace Automatic Control Institute
Pengyu Wang	Harbin Institute of Technology
Yuhan Liu	Harbin Institute of Technology
Yanning GUO	Harbin Institute of Technology
15:45-17:45	D12.140
1048 <i>Large-angle-of-attack underactuated control of near-space vehicle based on online LCDP feedback</i>	
Shouyuan Qian	National Key Laboratory of Near-space Physics
Lin Chen	National Key Laboratory of Near-space Physics
Xiaoming Guo	National Key Laboratory of Near-space Physics
15:45-17:45	D12.141
1170 <i>Decoupled pre-allocation of UAV tasks based on PSO and A* algorithm</i>	
Zuotao Song	National Univ. of Defense Technology
Yunchong Zhu	National Univ. of Defense Technology
Weilin Wang	Space Engineering Univ.
Yangang Liang	National Univ. of Defense Technology
Kebo Li	National Univ. of Defense Technology
15:45-17:45	D12.142
1269 <i>Integrating instance segmentation for semantic mapping and path planning of indoor UAVs</i>	
Zan Zhang	Beijing Institute of Technology
Jiang Wang	Beijing Institute of Technology

15:45-17:45	D12.143
1401 Robust trajectory optimization for parafoil homing under hybrid uncertainty using polynomial chaos expansion	
Yilan Bai	National Univ. of Defense Technology
Mengying Zhang	National Univ. of Defense Technology
Yangang Liang	National Univ. of Defense Technology
Kebo Li	National Univ. of Defense Technology
15:45-17:45	D12.144
497 A robust MARL method for multi-satellite pursuit-evasion games	
Baoyi Cui	Harbin Institute of Technology
Ke Chen	Harbin Institute of Technology
Xin Ren	Harbin Institute of Technology
Youmin Gong	Harbin Institute of Technology
Yanning Guo	Harbin Institute of Technology
Panxing Huang	Beijing Institute of Control Engineering
15:45-17:45	D12.145
1576 FedFPA-Q: Communication-efficient personalized federated learning for multi-UAV collaborative perception	
Chenzhe Liu	Shanghai Univ.
Antai Xie	Shanghai Univ.
Linjing Chen	Shanghai Univ.
Xiaoqiang Ren	Shanghai Univ.
15:45-17:45	D12.146
114 Robust visual-LiDAR fusion SLAM for challenging environments	
Runzhuo Yu	Harbin Institute of Technology
Ke Fang	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
Qing Guo	Univ. of Electronic Science and Technology of China
15:45-17:45	D12.147
445 High speed multi-vehicle reentry guidance with consideration of angle and time coordination	
Yujie Bai	Harbin Institute of Technology
Wei He	Shanghai Electro-Mechanical Engineering Institute
Denghui Zhang	AVIC Shenyang Aircraft Design and Research Institute
Tao Chao	Harbin Institute of Technology
15:45-17:45	D12.148
665 Research on attitude control method of high speed morphing vehicle based on reinforcement learning	
Hongyang Ba	Harbin Institute of Technology
Wei He	Shanghai Electro-Mechanical Engineering Institute
Denghui Zhang	AVIC Shenyang Aircraft Design and Research Institute
Tao Chao	Harbin Institute of Technology
15:45-17:45	D12.149
768 Research on a bidirectional adaptive RRT* path planning algorithm incorporating a variable elliptical sampling strategy	
Yifan Chen	Nanning Vocational and Technical Univ.
Wenjing Tian	Guilin Univ. of Electronic Technology
Yuwei Ke	Nanning Vocational and Technical Univ.
Jie Chen	Nanning Vocational and Technical Univ.

Junxi Tian	Guilin Univ. of Electronic Technology
15:45-17:45	D12.150
1196 Robust tightly-coupled stereo visual-inertial-UWB navigation	
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
1207 Rapid scheduling strategy for low earth orbit constellations for continuous tracking of multiple maneuvering targets	
Jiacheng Li	Harbin Institute of Technology
Junzhi Cheng	Harbin Institute of Technology
Zijie Ji	China Academy of Space Technology
Xiaoqing Zhong	China Academy of Space Technology
Ju Huo	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
15:45-17:45	D12.152
1494 Brain-inspired reinforcement learning for goal-reaching navigation	
Jiaxin Yan	Univ. of Electronic Science and Technology of China
Jun Li	AVIC Chengdu Aircraft Design and Research Institute
Huixin Li	AVIC Chengdu Aircraft Design and Research Institute
Zebo Zhou	Univ. of Electronic Science and Technology of China
15:45-17:45	D12.153
769 Deep learning-based GNSS positioning error estimation method and performance analysis	
Juntai Qi	Nanjing Univ. of Aeronautics and Astronautics
Qieqie Zhang	Nanjing Univ. of Aeronautics and Astronautics
Xiaojie Tian	Nanjing Univ. of Aeronautics and Astronautics
Le Fang	Nanjing Univ. of Aeronautics and Astronautics
Leyi Yang	Nanjing Univ. of Aeronautics and Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.154
850 Visual semantic enhanced LiDAR triangle descriptor and loop closure detection	
Zehui Fu	Nanjing Univ. of Aeronautics and Astronautics
Hanchong Cai	Nanjing Univ. of Aeronautics and Astronautics
Wei Fang	Nanjing Univ. of Aeronautics and Astronautics
Pin Lyu	Nanjing Univ. of Aeronautics and Astronautics
Cheng Yuan	Nanjing Univ. of Aeronautics and Astronautics

	Astronautics
Haowen Zhu	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.155
904 <i>UAV low-altitude visual localization method based on joint constraints of geometric consistency and laser altitude</i>	
Qingxia Zhong	Nanjing Univ. of Aeronautics and Astronautics
Cheng Yuan	Nanjing Univ. of Aeronautics and Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics and Astronautics
Churong Ding	Nanjing Univ. of Aeronautics and Astronautics
Hongyang Wang	Nanjing Univ. of Aeronautics and Astronautics
Zhimin Li	Nanjing Univ. of Aeronautics and Astronautics
Pin Lyu	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.156
923 <i>An autonomous navigation and positioning method for UAVs based on visual map matching and inertial fusion</i>	
Hongyang Wang	Nanjing Univ. of Aeronautics and Astronautics
Qieqie Zhang	Nanjing Univ. of Aeronautics and Astronautics
Hanyu Zhan	Nanjing Univ. of Aeronautics and Astronautics
Cheng Yuan	Nanjing Univ. of Aeronautics and Astronautics
Yi Lu	Nanjing Univ. of Aeronautics and Astronautics
Qingxia Zhong	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.157
932 <i>Vision-inertial SLAM based navigation and positioning method for fixed-wing UAV landing</i>	
Xiang Liu	Nanjing Univ. of Aeronautics and Astronautics
Qieqie Zhang	Nanjing Univ. of Aeronautics and Astronautics
Zhimin Li	Nanjing Univ. of Aeronautics and Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.158
935 <i>A visual-inertial navigation method for disturbance scenarios based on multi-dimensional quality assessment for feature selection</i>	
Churong Ding	Nanjing Univ. of Aeronautics and Astronautics
Cheng Yuan	Nanjing Univ. of Aeronautics and Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics and Astronautics
Qingxia Zhong	Nanjing Univ. of Aeronautics and Astronautics

	Astronautics
Heqing Chen	Nanjing Univ. of Aeronautics and Astronautics
Pin Lyu	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.159
103 <i>Adaptive Extended State Observer-based Sliding Mode Control for Carrier-based Aircrafts during Landing</i>	
Xiulin Zhang	AVIC Shenyang Aircraft Design and Research Institute
Yanfeng Liu	AVIC Shenyang Aircraft Design and Research Institute
Xinyu Feng	AVIC Shenyang Aircraft Design and Research Institute
Yang Zhang	AVIC Shenyang Aircraft Design and Research Institute
Yifeng Wang	Harbin Institute of Technology
Zhaoji Wang	Nanjing University of Aeronautics and Astronautics
Shouzhao Sheng	Nanjing University of Aeronautics and Astronautics
15:45-17:45	D12.160
1049 <i>Visual object perception method based on improved RT-DETR under cloud and fog interference</i>	
Yuchun Wang	Nanjing Univ. of Aeronautics and Astronautics
Cheng Yuan	Nanjing Univ. of Aeronautics and Astronautics
Pin Lyu	Nanjing Univ. of Aeronautics and Astronautics
Siyuan Li	Nanjing Univ. of Aeronautics and Astronautics
Yuxuan Chen	Nanjing Univ. of Aeronautics and Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics and Astronautics
15:45-17:45	D12.161
489 <i>A dynamic grasping method for aerial manipulators based on vision</i>	
Dongfang Xu	Nanjing Univ. of Aeronautics and Astronautics
Zehui Mao	Nanjing Univ. of Aeronautics and Astronautics
Xunhong Lv	Nanjing Univ. of Aeronautics and Astronautics
Baohua Liu	Jiangsu Automation Research Institute
15:45-17:45	D12.162
490 <i>Robust autonomous landing of UAV on water based on visual guidance</i>	
Jincheng Chen	Nanjing Univ. of Aeronautics and Astronautics
Zehui Mao	Nanjing Univ. of Aeronautics and Astronautics
Xunhong Lv	Nanjing Univ. of Aeronautics and Astronautics
Baohua Liu	Jiangsu Automation Research

		Institute			
15:45-17:45		D12.163	Haibo Ge		Tongji Univ.
101 <i>Maneuvering-based trajectory planning for berthing control of ASV via speed assignment with ILOS</i>			Wei Ouyang		Tongji Univ.
Ting Sun		Dalian Maritime Univ.	15:45-17:45		D12.170
Yong Yin		Dalian Maritime Univ.	498 <i>Robustness analysis of D3RQN-based UAV trajectory decision-making in partially observable environments</i>		
Cheng Liu		Dalian Maritime Univ.	Xuhui Wang		China Academy of Civil Aviation Science and Technology
Zhaochun Liu		Dalian Maritime Univ.	Shenglong Zhang		Shenyang Aerospace Univ.
Helong Shen		Dalian Maritime Univ.	Tengli Yu		Shenyang Aerospace Univ.
Xiaobin Qian		Shanghai Maritime Univ.	Song Xu		Shenyang Aerospace Univ.
15:45-17:45		D12.164	Jing Guo		China Academy of Civil Aviation Science and Technology
1311 <i>Online compensation of thermal drift in atomic device based on Faraday-rotation measurement</i>			Yubin Xu		China Academy of Civil Aviation Science and Technology
Silu Deng		Beihang Univ.	Ershen Wang		Shenyang Aerospace Univ.
Zehua Liu		Beihang Univ.	15:45-17:45		D12.171
Yuxin Cong		Beihang Univ.	133 <i>Research on deep learning-based ultrasonic guided wave detection methods for carbon fiber composite material defects</i>		
Haoying Pang		Beihang Univ.	Yiqun Lv		Qilu Univ. of Technology
Jixi Lu		Beihang Univ.	Qingzhao Jia		Qilu Univ. of Technology
15:45-17:45		D12.165	Huangzhi Yu		Qilu Univ. of Technology
1748 <i>Atomic interferometer gyroscopes: Technological evolution, application challenges, and future perspectives</i>			Shun Wang		Qilu Univ. of Technology
Qiuxin Zhang		Beijing Changcheng Institute of Metrology & Measurement	Yanqiang Li		Qilu Univ. of Technology
Bin Chen		Beijing Changcheng Institute of Metrology & Measurement	Daifeng Zhang		Qilu Univ. of Technology
Dong Hu		Beijing Changcheng Institute of Metrology & Measurement	15:45-17:45		D12.172
Yu Wang		Beijing Changcheng Institute of Metrology & Measurement	1188 <i>基于数据驱动的飞行仿真模型迁移校正</i>		
15:45-17:45		D12.166	Ruizhe Ma		Beijing Aerospace Institute for Metrology and Measurement Technology
657 <i>A ranging-based distributed cooperative localization method using Lie group right invariant error extended Kalman filter</i>			Yanguo Hu		AVIC Shenyang Aircraft Design and Research Institute
Xincan Luo		National Univ. of Defense Technology	Yang Sun		Shanghai Jiao Tong Univ.
Maosong Wang		National Univ. of Defense Technology	Yanzhe Bai		Harbin Normal Univ.
Wenqi Wu		National Univ. of Defense Technology	15:45-17:45		D12.173
Jun Mao		National Univ. of Defense Technology	287 <i>A comprehensive review of core algorithms and performance analysis for multi-UAV collaborative navigation</i>		
Xiaofeng He		National Univ. of Defense Technology	Danting Sheng		Beijing Electro-mechanical Engineering Institute
15:45-17:45		D12.167	Yibin Wang		Beijing Electro-mechanical Engineering Institute
751 <i>A lightweight semantic-prior SLAM method based on an improved YOLO11n for dynamic scenes</i>			Xiongzi Du		Beijing Electro-mechanical Engineering Institute
Luchang Tang		National Univ. of Defense Technology	Yuxin Niu		Beijing Electro-mechanical Engineering Institute
Maosong Wang		National Univ. of Defense Technology	15:45-17:45		D12.174
15:45-17:45		D12.168	183 <i>A nonlinear aerodynamic correction method for missile body based on BP neural network</i>		
869 <i>An equivariant filter based GNSS-LiDAR-inertial odometry</i>			Zhongyun Fan		Xi'an Modern Control Technology Research Institute
Wentao Lu		Wuhan Univ.	Junmin Zhao		Xi'an Modern Control Technology Research Institute
Wenning Li		Beidou Application Development Research Institute	Gang Wang		Xi'an Modern Control Technology Research Institute
Chi Guo		Wuhan Univ.	Jiaqi Wang		Xi'an Modern Control Technology Research Institute
Ning Kang		Beidou Application Development Research Institute	Lei Su		Xi'an Modern Control Technology Research Institute
Yarong Luo		Wuhan Univ.	Fuqiang Di		Xi'an Modern Control Technology
15:45-17:45		D12.169			
1662 <i>The setting of IMU parameters in Kalman filtering-based information fusion</i>					
Qiang Hu		Tongji Univ.			
Yanhua Zou		Tongji Univ.			
Shuaiyi Huo		Tongji Univ.			

Research Institute	
15:45-17:45	D12.175
1064 <i>Research on formation and obstacle avoidance control of underactuated unmanned surface vessels under input constraints and GPS-denied environment</i>	
Xuecheng Zhou	Shanghai Univ.
Yueying Wang	Shanghai Univ.
15:45-17:45	D12.176
275 <i>Waterproofness and electromagnetic environmental compliance design for distributed fly-by-wire flight control actuator servo controller</i>	
Xueyang Yu	Shanghai Aircraft Design and Research Institute
15:45-17:45	D12.177
516 基于鸽群优化的舰载机控制舵面配平	
Jiaxing Wang	AVIC Shenyang Aircraft Design and Research Institute
Yan Ding	AVIC Shenyang Aircraft Design and Research Institute
Yiming Fan	AVIC Shenyang Aircraft Design and Research Institute
Heqi Li	AVIC Shenyang Aircraft Design and Research Institute
15:45-17:45	D12.178
1571 <i>Compliance design method and application of oscillation and transient fault diagnosis in aircraft flight control hydraulic actuation system</i>	
Xueyang Yu	Shanghai Aircraft Design and Research Institute
15:45-17:45	D12.179
890 <i>Analysis of safety impact on startup mode of flight control backup system</i>	
Tian Zhao	AVIC First Aircraft Design and Research Institute
Feihong Jiang	AVIC First Aircraft Design and Research Institute
15:45-17:45	D12.180
1334 <i>Thrust-only emergency control for four-engine transport aircraft based on nonlinear dynamic inversion</i>	
Tan Li	AVIC First Aircraft Design and Research Institute
Lei Gong	AVIC First Aircraft Design and Research Institute
15:45-17:45	D12.181
1743 <i>Target electromagnetic characteristic simulation technology driven by both data and mechanism</i>	
Baichen Jiang	Unit 92942
Shuman Wang	Unit 92942
Yuan Yuan Zhou	Sichuan Aerospace Electronic Equipment Research Institute
Nan Wang	Unit 92942



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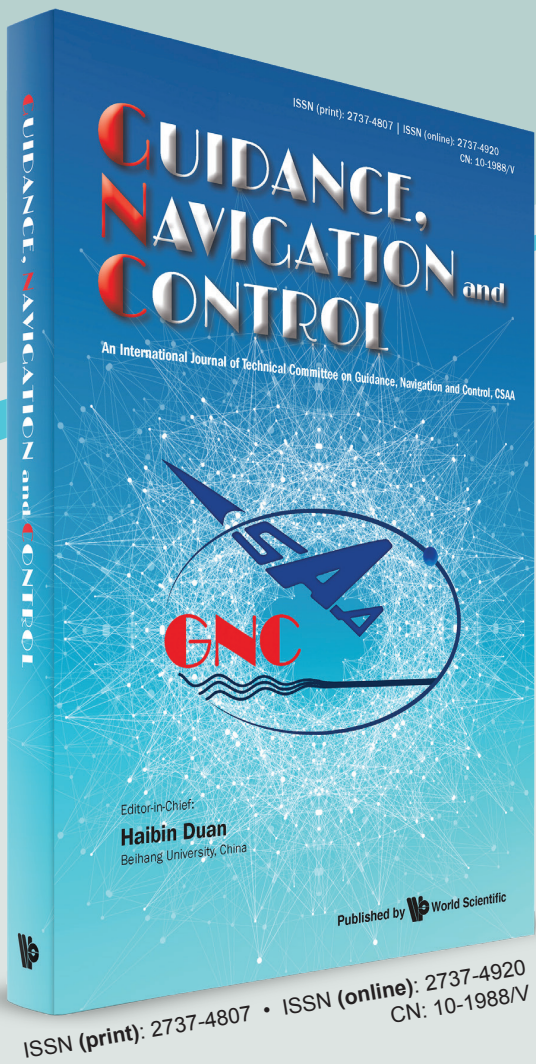


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