

Subject: Invited Session Proposal for ICGNC 2020

Proposed Session Name: “Robust Adaptive Control for Uncertain Nonlinear Systems and Their Applications”(不确定非线性系统鲁棒自适应控制及其应用)

Dear Prof. Bin Jiang, Prof. Yifei Zhao, Prof. Hugh Hong-Tao Liu, Prof. Quan Pan, and Prof. Xiang Yu

We are writing this letter to submit a proposed invited session for the ICGNC 2020, August 7-9, 2020, Tianjin, China.

With the rapid application and development of aeronautical and aerospace systems, the flight control systems have attracted more and more attention in recent years. Usually, the flight control systems, including aircraft, helicopter, satellite, launch vehicles, hypersonic vehicles and missiles, are highly nonlinear systems. Hence, the control design for such systems must cope with (1) uncertainties and unmodeled dynamics; (2) various disturbances, and even engine failures; (3) a wide range of flight conditions (aerodynamic parameter variations); (4) different faults of sensors and actuator, and so on.

Nonlinear control techniques are probably the most efficient solutions for improving the performances of flight control systems. However, the above factors are posing new and challenging theoretical and technological challenges for modeling and control of uncertain nonlinear control systems with high performance requirements. New advances in nonlinear control may also enhance and stimulate further theoretical studies and practical applications.

In this context, we wish to propose an invited session for the ICGNC 2020 entitled “Robust Adaptive Control for Uncertain Nonlinear Systems and Their Applications.”

Organizers:

Prof. Mou Chen, Prof. Daobo Wang and Dr. Shuyi Shao

Yours sincerely

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