

Content List of 2016 IEEE Chinese Guidance, Navigation and Control Conference

Technical Program for Saturday, August 13, 2016

SatA1		ROOM 206, Main Bld
Control Theory I (Regular Session)		
Chairs: Xiaoping Zhu	Northwestern Polytechnical Univ.	
Jiguang Li	Nanjing Univ. of Aeronautics & Astronautics	
13:30-13:45 SatA1.1		
<i>Nonlinear Stabilization Control of Tilt Rotor UAV during Transition Flight based on HOSVD</i>		
Chao Dai	Xiamen Univ.	
Huihui Bai	Xiamen Univ.	
Jianping Zeng	Xiamen Univ.	
13:45-14:00 SatA1.2		
<i>Research on Adaptive Backstepping Sliding Mode Control Method for a Hex-rotor Unmanned Aerial Vehicle</i>		
Zhuo Zhang	Beihang Univ.	
Zhenghua Liu	Beihang Univ.	
Nuan Wen	Beihang Univ.	
14:00-14:15 SatA1.3		
<i>Linear Parameter Varying Control of Unmanned Quadrotor Helicopter with Mass Variation and Battery Drainage</i>		
Zhixiang Liu	Concordia Univ., Canada	
Chi Yuan	Concordia Univ., Canada	
Youmin Zhang	Concordia Univ., Canada	
14:15-14:30 SatA1.4		
<i>Dynamic Surface Attack Angle Control for Aircraft Considering Actuator Position Saturation</i>		
Xiaodong Liu	Beijing Aerospace Automatic Control Institute	
Sheng Sun	Beijing Aerospace Automatic Control Institute	
Pengjie Lan	Beijing Aerospace Automatic Control Institute	
Lifu Du	Beijing Aerospace Automatic Control Institute	
14:30-14:45 SatA1.5		
<i>State Feedback H infinity Control of Switched Linear Singularly Perturbed Systems</i>		
Xuan Chen	Inner Mongolian Polytechnical Univ.	
Jinxiang Chen	China Iron & Steel Research Institute	
14:45-15:00 SatA1.6		
<i>An Improved Chattering-free Sliding Mode Control with Finite Time Convergence for Reentry Vehicle</i>		
Chong Shen	Beijing Institute of Technology	
Yongzhi Sheng	Beijing Institute of Technology	
Xiangyuan Zeng	Beijing Institute of Technology	
Xiangdong Liu	Beijing Institute of Technology	
15:00-15:15 SatA1.7		
<i>Off-line Self-scheduled Robust Predictive Tracking Control of Linear Parameter-varying Systems</i>		
Chaofan He	China Academy of Launch Vehicle	

Hongbo Chen	China Academy of Launch Vehicle Technology
Hongtao Zheng	China Academy of Launch Vehicle Technology
Lingyu Yang	Beihang Univ
Liping Yuan	China Academy of Launch Vehicle Technology
Yongyuan Li	China Academy of Launch Vehicle Technology
15:15-15:30 SatA1.8	
<i>The Attitude Decoupling Control of the Flying Wing UAV</i>	
Jiguang Li	Nanjing Univ. of Aeronautics & Astronautics
Xin Chen	Nanjing Univ. of Aeronautics & Astronautics
Zhen Li	Nanjing Univ. of Aeronautics & Astronautics

SatA2		ROOM 205, Main Bld
Control Theory II (Regular Session)		
Chairs: Mou Chen	Nanjing Univ. of Aeronautics & Astronautics	
Yue Yu	Beihang Univ.	
13:30-13:45 SatA2.1		
<i>An Anti-windup Fault Tolerant Control Method for Tailless Flying Wing Aircraft</i>		
Wei F. Shuang	Nanjing Univ. of Aeronautics & Astronautics	
Shao J. Zhang	Nanjing Univ. of Aeronautics & Astronautics	
Xue Wu	Nanjing Univ. of Aeronautics & Astronautics	
13:45-14:00 SatA2.2		
<i>Underdamping Characteristic Analysis and Dual-feedback Control for Flooded Linear Oscillating Motor</i>		
Tianyi Wang	Beihang Univ.	
Zongxia Jiao	Beihang Univ.	
Liang Yan	Beihang Univ.	
14:00-14:15 SatA2.3		
<i>Adaptive Variable Structure Control of Flight Control System</i>		
Junpeng Shi	Nanjing Univ. of Aeronautics & Astronautics	
Jianwei Liu	Nanjing Univ. of Aeronautics & Astronautics	
Bi Lan	Shanghai Aircraft Manufacturing Co. Ltd	
Pu Yang	Nanjing Univ. of Aeronautics & Astronautics	
14:15-14:30 SatA2.4		
<i>Adaptive Dynamic Surface Control of VCM Driven Pointing Mirror with Parameter Uncertainties</i>		
Ziyin Chen	Beijing Institute of Space	

Zhe Lin	Mechanics & Electricity Beijing Institute of Space
Jianbing Kang	Mechanics & Electricity Beijing Institute of Space
Chunyu Yue	Mechanics & Electricity Beijing Institute of Space
Heming Jia	Mechanics & Electricity Northeast Forestry Univ.
14:30-14:45 SatA2.5	
<i>Chattering Free Sliding Adaptive Attitude Control for Quadrotor</i>	
Zhi Li	Shandong Univ.
Xin Ma	Shandong Univ.
Zhigang Xu	Shandong Univ.
Yafang Wang	Shandong Univ.
Yibin Li	Shandong Univ.
14:45-15:00 SatA2.6	
<i>The Attitude Control of UAV in Carrier Landing based on ADRC</i>	
Yue Yu	Beihang Univ.
Honglun Wang	Beihang Univ.
Xingling Shao	Beihang Univ.
Yu Huang	Beihang Univ.
15:00-15:15 SatA2.7	
<i>A Health Monitoring Technology based on MSPC for Civilian Aircraft Flap/Slat Control System</i>	
Tong Liu	Shanghai Aircraft Design and Research Institute
Weida Wang	Shanghai Aircraft Design and Research Institute
Xiaoxi Wang	Shanghai Aircraft Design and Research Institute
15:15-15:30 SatA2.8	
<i>The Application of L1 Adaptation Control Theory for Flying-Wing UAV</i>	
Xiaowei Zhang	Nanjing Univ. of Aeronautics & Astronautics
Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics
Jiangling Fu	Nanjing Univ. of Aeronautics & Astronautics
SatA3 ROOM 204, Main Bld	
Control Theory III (Regular Session)	
Chairs: Daobo Wang	Nanjing Univ. of Aeronautics & Astronautics
Jun Che	AVIC Xi'an Flight Automatic Control Research Institute
13:30-13:45 SatA3.1	
<i>Design of Adaptive Control Algorithm for Cryocooler Control System</i>	
Chenpeng Cui	Beijing Institute of Space Mechanics & Electricity
Xinyu Zhang	Beijing Institute of Space Mechanics & Electricity
Xuefeng Liu	Beijing Institute of Space Mechanics & Electricity
13:45-14:00 SatA3.2	
<i>Optimal Event-triggered Control for Networked Stochastic</i>	

<i>System with Packets Losses</i>	
Yun Liu	Xi'an Research Institute of High-tech
Hexin Zhang	Xi'an Research Institute of High-tech
Guoliang Li	Xi'an Research Institute of High-tech
Xiaoxiang Hu	Xi'an Research Institute of High-tech
14:00-14:15 SatA3.3	
<i>A QCEKF based Outlier Elimination Method for Dynamic Nonlinear Systems</i>	
Yanguang Jiang	Academy of Mathematics and Systems Science, CAS
Xingkang He	Academy of Mathematics and Systems Science, CAS
Yi Huang	Academy of Mathematics and Systems Science, CAS
Wenchao Xue	Academy of Mathematics and Systems Science, CAS
Haitao Fang	Academy of Mathematics and Systems Science, CAS
14:15-14:30 SatA3.4	
<i>Fault Diagnosis of Flight Control System based on BP Neural Network Observer</i>	
Desheng Sun	Beijing Aerospace Automatic Control Institute Southeast Univ.
Nan Qiao	Beijing Aerospace Automatic Control Institute
Bo Liu	Beijing Aerospace Automatic Control Institute
Minfeng Wei	Beijing Aerospace Automatic Control Institute
14:30-14:45 SatA3.5	
<i>The Research of the Detection Methods of the Exception Interrupts in the Aero-engine Control Software based on Mpc5554</i>	
Jiaying Yu	AVIC Aviation Motor Control System Institute
14:45-15:00 SatA3.6	
<i>Analysis and Elimination of Ringing in Digital Circuit</i>	
Dongfeng Qiao	Taiyuan Aero-Instruments Ltd.
15:00-15:15 SatA3.7	
<i>Prototype Design and Simulation of the Fault-tolerant Flight Control and Fault Diagnosis Computer</i>	
Dongmei Zhao	CSSC Systems Engineering Research Institute
Hao Li	CSSC Systems Engineering Research Institute
Wenyuan Xu	CSSC Systems Engineering Research Institute
Li Guo	CSSC Systems Engineering Research Institute
Shengxiao Zhang	CSSC Systems Engineering Research Institute
15:15-15:30 SatA3.8	
<i>Attitude Predictive Control of Hypersonic Vehicle with State Estimator</i>	
Niannian He	Bona Science and Technology Development limited Company
Chaofan He	China Academy of Launch

Haoqian Huang	Southeast Univ.
Xiyuan Chen	Southeast Univ.
14:30-14:45	SatA5.5
<i>Vision-aided Navigation for Fixed-wing UAV's Autonomous Landing</i>	
Yelin Zhang	Beihang Univ.
Yangzhu Wang	Beihang Univ.
Zhen Han	Beihang Univ.
14:45-15:00	SatA5.6
<i>Target Tracking for Rotor UAV based on Multi-Scale Compressive Sensing</i>	
Chunye Jia	Nanjing Univ. of Aeronautics & Astronautics
Ziyang Zhen	Nanjing Univ. of Aeronautics & Astronautics
Kun Ma	Nanjing Univ. of Aeronautics & Astronautics
Liuqing Yang	Nanjing Univ. of Aeronautics & Astronautics
15:00-15:15	SatA5.7
<i>A Monocular Vision-based Attitude Estimation Approach for Small Unmanned Aerial Vehicles and Its Experimental Verification</i>	
Yunyan Wu	Northwestern Polytechnical Univ.
Guangwen Li	Northwestern Polytechnical Univ.
Weinan Li	Northwestern Polytechnical Univ.
Xianglun Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Jun Che	AVIC Xi'an Flight Automatic Control Research Institute
Fuxiang Qiao	Northwestern Polytechnical Univ.
15:15-15:30	SatA5.8
<i>An Innovative Integrated Navigation based on Norm-Constrained UKF during Mars Powered Descent</i>	
Taishan Lou	Zhengzhou Univ. of Light Industry
Jie Liu	Zhengzhou Univ. of Light Industry
Pan Jin	Zhengzhou Institute of Aeronautical Industry Management

SatA6 ROOM 209, Bld 1	
GNC (Aircraft) (Regular Session)	
Chairs: Jihong Zhu	Tsinghua Univ.
Guangfu Ma	Harbin Institute of Technology
13:30-13:45	SatA6.1
<i>Aircraft Longitudinal Unsteady Aerodynamic Modeling Using Indicial Function</i>	
Chijun Zhou	Air Force Engineering Univ.
Jihong Zhu	Tsinghua Univ.
Humin Lei	Air Force Engineering Univ.
13:45-14:00	SatA6.2
<i>Unconventional Roll Axis Response-type Nonlinear Dynamic Inversion Flight Control Law Design</i>	
Youguang Guo	Beihang Univ.
Ting Yue	Beihang Univ.
Lixin Wang	Beihang Univ.
14:00-14:15	SatA6.3
<i>Design of Flying Boom Controller before and after Docking</i>	

Huazi Cao	Beihang Univ.
Lixin Wang	Beihang Univ.
Ting Yue	Beihang Univ.
14:15-14:30	SatA6.4
<i>Active Vibration Isolation for Stewart Platform Using Backstepping and NFTSM Control</i>	
Guangfu Ma	Harbin Institute of Technology
Yuhan Liu	Harbin Institute of Technology
Yanchao Sun	Harbin Institute of Technology
Jingjing Ma	Harbin Institute of Technology
14:30-14:45	SatA6.5
<i>On Close-range Air Combat based on Hidden Markov Model</i>	
Chao Feng	Air Force Engineering Univ.
Peng Yao	Air Force Engineering Univ.
14:45-15:00	SatA6.6
<i>Dynamic Characteristics Analysis of Elastic Missile</i>	
Zhaoqing Xu	South China Univ. of Technology
Hailong Pei	South China Univ. of Technology
15:00-15:15	SatA6.7
<i>Importance Measures of Basic Variable under Multiple Failure Modes and Their Solutions</i>	
Lijie Cui	Air Force Engineering Univ.
Bo Ren	Air Force Engineering Univ.
Ze Li	Air Force Engineering Univ.
15:15-15:30	SatA6.8
<i>Dynamic Characteristics Analysis for Oblique Wing Aircraft</i>	
Zijian Xu	Beihang Univ.
Ting Yue	Beihang Univ.
Lixin Wang	Beihang Univ.

SatA7 ROOM 212, Bld 1	
GNC(Spacecraft) I (Regular Session)	
Chairs: Huifeng Li	Beihang Univ.
Bing Hua	Nanjing Univ. of Aeronautics & Astronautics
13:30-13:45	SatA7.1
<i>Terminal Guidance with Impact Angle Constraint based on a Practical Flight Strategy</i>	
Yanan Wu	Beihang Univ.
Ran Zhang	Beihang Univ.
Huifeng Li	Beihang Univ.
13:45-14:00	SatA7.2
<i>Time and Covariance Threshold Triggered Optimal Uncooperative Rendezvous Using Angles Only Navigation</i>	
Yue You	National Univ. of Defense Technology
Hua Wang	National Univ. of Defense Technology
Christophe Paccolat	Swiss Federal Institute of Technology
Jiuren Li	Manned Space Technology System Center
14:00-14:15	SatA7.3
<i>Magnetic-based Attitude Control Scheme for CubeSat</i>	
Xiwang Xia	Shanghai Engineering Center for Microsatellites
Shufan Wu	Shanghai Engineering Center for

	Microsatellites	
Guowen Sun	Shanghai Engineering Center for	
	Microsatellites	
Tian Wang	Shanghai Engineering Center for	
	Microsatellites	
Ziyi Wu	Shanghai Engineering Center for	
	Microsatellites	
Yanping Bai	Shanghai Engineering Center for	
	Microsatellites	
Wen Chen	Shanghai Engineering Center for	
	Microsatellites	
Zhongcheng Mu	Shanghai Engineering Center for	
	Microsatellites	
14:15-14:30		SatA7.4
<i>Integral Sliding Mode Controller Design for Near Space Vehicle with Input Constraints</i>		
Qi Wu	Northwestern Polytechnical Univ.	
Changqing Wang	Northwestern Polytechnical Univ.	
Aijun Li	Northwestern Polytechnical Univ.	
Bin Huang	Northwestern Polytechnical Univ.	
14:30-14:45		SatA7.5
<i>Entry Trajectory Optimization for Hypersonic Vehicle based on Time-scales Separation Guidance with Waterweeds Algorithm</i>		
Xudong Liu		Beihang Univ.
Lin Cheng		Beihang Univ.
Qingzhen Zhang		Beihang Univ.
Lingtong Jiang	China Academy of Launch	Vehicle Technology
14:45-15:00		SatA7.6
<i>Design of Real-Time Measurement System with Vision/IMU for Close-Range Semi-Physical Rendezvous and Docking Simulation</i>		
Zhenshen Qu	Harbin Institute of Technology	
Xiangyu Chu	Harbin Institute of Technology	
Mengyu Fu	Harbin Institute of Technology	
Xiaokai Liu	Harbin Institute of Technology	
Weinan Xie	Harbin Institute of Technology	
Changhong Wang	Harbin Institute of Technology	
15:00-15:15		SatA7.7
<i>An Improved Reentry Trajectory Planning Method for Common Aero Vehicle</i>		
Yutao Wang	Dalian Univ. of Technology	
Wenya Zhou	Dalian Univ. of Technology	
Yan Pang	Dalian Univ. of Technology	
Zhigang Wu	Dalian Univ. of Technology	
15:15-15:30		SatA7.8
<i>The Capture Region of TPN Guidance Law for Orbital Pursuit-evasion with Limited Maneuverability</i>		
Dateng Yu	National Univ. of Defense Technology	
Hua Wang	National Univ. of Defense Technology	
Kebo Li	National Univ. of Defense Technology	
Shuai Guo	National Univ. of Defense Technology	

SatA8 ROOM 210, Bld 1
GNC(Spacecraft) II (Regular Session)

Chairs: Qinglei Hu	Beihang Univ.
	Harbin Institute of Technology
Lilun Yan	Northwestern Polytechnical Univ.
13:30-13:45	SatA8.1
<i>Adaptive Backstepping Control of Uncertain Nonlinear Systems with Input Backlash</i>	
Ali Anwar	Harbin Institute of Technology
Xiaodong Shao	Beihang Univ.
Qinglei Hu	Beihang Univ.
	Harbin Institute of Technology
Aidana Moldabayeva	Harbin Institute of Technology
Bo Li	Harbin Institute of Technology
13:45-14:00	SatA8.2
<i>Finite Time Attitude Control of Double Tethered Satellites System in Deep Space</i>	
Chuanjiang Li	Harbin Institute of Technology
Junyu Yao	Harbin Institute of Technology
Bo Li	Harbin Institute of Technology
Guangfu Ma	Harbin Institute of Technology
14:00-14:15	SatA8.3
<i>Feedback Linearization Control of Uncertain Satellite Attitude based on Disturbance Estimation and State Observation</i>	
Erjiang Liu	National Univ. of Defense
	Technology
Ye Yan	National Univ. of Defense
	Technology
Shenglin Wen	Aviation Univ. of Air Force
Yueneng Yang	National Univ. of Defense
	Technology
14:15-14:30	SatA8.4
<i>Finite-time Adaptive Terminal Sliding Mode Controller Design for Reusable Launch Vehicle in Reentry Phase</i>	
Chen Liu	Beihang Univ.
Chaoyang Dong	Beihang Univ.
Weilai Jiang	Beihang Univ.
14:30-14:45	SatA8.5
<i>Design on Automatic Alignment Control Law for Aerial Boom Refueling</i>	
Lilun Yan	Northwestern Polytechnical Univ.
Dongli Yuan	Northwestern Polytechnical Univ.
Jianguo Yan	Northwestern Polytechnical Univ.
Yaohong Qu	Northwestern Polytechnical Univ.
14:45-15:00	SatA8.6
<i>Trajectory Tracking Control based on Improved Particle Swarm Optimization</i>	
Yuxiao Wang	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
Songyan Wang	Harbin Institute of Technology
Ming Yang	Harbin Institute of Technology
15:00-15:15	SatA8.7
<i>Mission Analysis of Human Mars Exploration based on Space Elevator</i>	
Zhaohui Gao	Beihang Univ.
Kewei Tong	China Academy of Launch
	Vehicle Technology
Feng Zhang	China Academy of Launch
	Vehicle Technology

Yi Cai	Beijing Univ.of Chemical Technology								Astronautics
15:15-15:30		SatA8.8							
<i>Back-stepping based Integrated Orbit and Attitude Control for On-orbit Servicing Spacecraft</i>									
Yueyong Lv	Harbin Institute of Technology								
Ziwei Wang	Harbin Institute of Technology								
Yanning Guo	Harbin Institute of Technology								
Liangming Chen	Harbin Institute of Technology								
SatA9 ROOM 310, Main Bld Modeling & Simulation I (Regular Session)									
Chairs: Qing Li									Tsinghua Univ.
Caimin Tan									Nanjing Univ. of Science and Technology
13:30-13:45		SatA9.1							
<i>Dynamic Modeling for a Variable-Span and Variable-Sweep Unmanned Aerial Vehicle</i>									
LuoChuan Li									Beihang Univ.
Zhenghua Liu									Beihang Univ.
Nuan Wen									Beihang Univ.
13:45-14:00		SatA9.2							
<i>Airborne Platform Estimation based on the Algorithm of Unscented Kalman Filter Quaternion</i>									
Feng Lin									Shenyang Aerospace Univ.
Yue Ba									Shenyang Aerospace Univ.
Xiaoguang Qu									Shenyang Aerospace Univ.
14:00-14:15		SatA9.3							
<i>A New IMU Data Generator with Suppression of Discretization Error for the SINS Simulation</i>									
Caiming Tan									Nanjing Univ. of Science and Technology
Xinhua Zhu									Nanjing Univ. of Science and Technology
Yu Wang									Nanjing Univ. of Science and Technology
Yan Su									Nanjing Univ. of Science and Technology
14:15-14:30		SatA9.4							
<i>Six-unit Control Volumes Thermal Model of the Swashplate Axial Piston Pump in Electro-hydrostatic Actuator Systems</i>									
Manyi Guo									Beihang Univ.
Shaoping Wang									Beihang Univ.
Xingjian Wang									Beihang Univ.
Di Wu									Beihang Univ.
14:30-14:45		SatA9.5							
<i>Shared Relay Vehicle Selection Strategy Using MEF-MPR Algorithm based on OLSR Routing Protocol</i>									
Linliang Zhang									Shanxi Transportation Research Institute
Wei Wang									Qunar.com Information Technology Co. Ltd.
14:45-15:00		SatA9.6							
<i>Carrier-based Aircraft Ski-Jump Take-off Control System and Visual Simulation</i>									
Liuqing Yang									Nanjing Univ. of Aeronautics & Astronautics
Ziyang Zhen									Nanjing Univ. of Aeronautics & Astronautics
Kangwei Li									Nanjing Univ. of Aeronautics & Astronautics
Chunye Jia									Nanjing Univ. of Aeronautics & Astronautics
15:00-15:15		SatA9.7							
<i>Design and Simulation for Hybrid LEO Communication and Navigation Constellation</i>									
Mingqi Yang									Equipment Academy, Beijing
Xurong Dong									Equipment Academy, Beijing
Min Hu									Equipment Academy, Beijing
15:15-15:30		SatA9.8							
<i>The Design of Phase-Locked Loop Control System based on FPGA</i>									
Chao Zhang									Beijing Institute of Space Mechanics & Electricity
Hui Zhao									Harbin Institute of Technology Univ.
Zhe Lin									Beijing Institute of Space Mechanics & Electricity
SatA10 ROOM 308, Main Bld New Progress in GNC I (Regular Session)									
Chairs: Randy W. Beard									Brigham Young University, USA
Ming Li									Shenyang Aircraft Design and Research Institute
13:30-13:45		SatA10.1							
<i>Reference Command Tracking of a Hypersonic Vehicle with Elastic Effects</i>									
Yiyin Wei									Harbin Institute of Technology China Aerospace Science and Industry Corporation
Yao Chen									Harbin Institute of Technology Beijing Automation Control Equipment Research Institute
Guangren Duan									Harbin Institute of Technology
Wangkui Liu									Harbin Institute of Technology
13:45-14:00		SatA10.2							
<i>Robust Proportional-Integral Control Design for F-16 Aircraft Using a Linear Matrix Inequality Approach</i>									
B. Huang									Shanghai Jiao Tong Univ.
Z.B. Theodore									California State Univ., USA
B. Lu									California State Univ., USA
14:00-14:15		SatA10.3							
<i>Adaptive Turbulence Compensation for Aircraft Flight Control</i>									
Liyang Wen									Nanjing Univ. of Aeronautics & Astronautics
Gang Tao									University of Virginia, USA Nanjing Univ. of Aeronautics & Astronautics
Hao Yang									Nanjing Univ. of Aeronautics & Astronautics
Yangjun Zhang									Nanjing Univ. of Aeronautics & Astronautics
14:15-14:30		SatA10.4							
<i>Trajectory Generation of Heat Load Test based on Gauss Pseudospectral Method</i>									
Yuanlong Zhang									National Univ. of Defense

	Technology	
Luhua Liu	National Univ. of Defense	
	Technology	
Guojian Tang	National Univ. of Defense	
	Technology	
Weimin Bao	China Aerospace Science and Technology Corporation	
14:30-14:45	SatA10.5	
<i>Trajectory Tracking of a Quadrotor Helicopter based on L1 Adaptive Control</i>		
Min Li	Beihang Univ.	
Zongyu Zuo	Beihang Univ.	
Donglei Sun	Univ. of Illinois, USA	
Chunyan Wang	Univ. of Manchester, UK	
Wei Wang	Beihang Univ.	
14:45-15:00	SatA10.6	
<i>Gaussian Entropy Weight Pigeon-Inspired Optimization for Rectangular Waveguide Design</i>		
Yuwei Hu	Beihang Univ.	
Haibin Duan	Beihang Univ.	
15:00-15:15	SatA10.7	
<i>Development of a UAV Sense and Avoid Strategy based on Predator-Prey Biogeography-based Optimization Approach</i>		
Yu Fu	Concordia Univ., Canada	
Xiang Yu	Hunan Univ.	
	Concordia Univ., Canada	
Youmin Zhang	Xi'an Univ. of Technology	
	Concordia Univ., Canada	
SatA11	ROOM 307, Main Bld	
Interactive Session I		
Chairs: Lin Tie	Beihang Univ.	
Wei Wang	Beihang Univ.	
13:30-15:30	SatA11.1	
<i>Post-nonlinear Blind Source Separation based on NPCA</i>		
Rongjie Wang	Jimei Univ.	
13:30-15:30	SatA11.2	
<i>The Error Analysis of the Localization Result Caused by the Installation Errors of a Seabed Array of Magnetometers</i>		
Hai Wei	Navy Armament Academy	
Chi Cheng	Naval Aeronautical and Astronautical Univ.	
13:30-15:30	SatA11.3	
<i>Anomaly Detection for DOS Routing Attack by an Attack Source Location Method</i>		
He Liu	Air Force Engineering Univ.	
Yingjun Zhao	Air Force Engineering Univ.	
Qingkuan Dong	Xi'an Univ. of Electronic Science and Technology	
13:30-15:30	SatA11.4	
<i>A Wide Dual-Band Circularly Polarized Antenna for GPS High-precision Survey</i>		
Rui Li	Guangzhou Maritime Institute	
Ming Bai	Guangzhou Maritime Institute	
Chunxiang Li	Guangzhou Maritime Institute	
Yidan Su	Guangzhou Maritime Institute	
Cairong Zheng	Guangzhou Maritime Institute	

13:30-15:30	SatA11.5	
<i>Airborne LSINS/GNSS Integrated Navigation System Self-calibration Technology Research and Realization</i>		
Ziyue Li	Nanjing Univ. of Aeronautics & Astronautics	
Lin Zhang	Beijing Aerospace Times Laser Inertial Technology Company Ltd.	
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics	
Shanqiu Chen	Beijing Aerospace Times Laser Inertial Technology Company Ltd.	
Rongbing Li	Nanjing Univ. of Aeronautics & Astronautics	
13:30-15:30	SatA11.6	
<i>Aero Engine Gas Path Fault Prediction based on Multi-sensor Information Fusion</i>		
Xiaohong Yang	Air Force Aviation Univ.	
Haifeng Guo	Air Force Aviation Univ.	
Jing Zhang	Air Force Aviation Univ.	
Jing Xu	First Hospital of Jilin Univ.	
Dandan Zhao	Air Force Aviation Univ.	
13:30-15:30	SatA11.7	
<i>Constraints Handling Method in Indirect Trajectory Optimization for Manned Asteroid Exploration</i>		
Anyi Huang	Xi'an Satellite Control Center	
Zhibin Zhang	Xi'an Satellite Control Center	
Hengnian Li	Xi'an Satellite Control Center	
13:30-15:30	SatA11.8	
<i>Soft Anthropomorphic Robotic Fingers: Design, Fabrication and Force Characterization</i>		
Hui Wang	Beihang Univ.	
Jungong Ma	Beihang Univ.	
Zheyuan Gong	Beihang Univ.	
Tianmiao Wang	Beihang Univ.	
Li Wen	Beihang Univ.	
13:30-15:30	SatA11.9	
<i>RBF Neural Network based Adaptive Sliding Mode Control for Hypersonic Flight Vehicles</i>		
Jianmin Wang	Technology and Engineering Center for Space Utilization	
Jinbo Wang	Technology and Engineering Center for Space Utilization	
Tao Zhang	Technology and Engineering Center for Space Utilization	
13:30-15:30	SatA11.10	
<i>Research on UCAV Air-to-Ground Autonomous Attack Occupation Technology</i>		
Guoqiang Yang	AVIC Xi'an Flight Automatic Control Research Institute	
Xueyao Zhu	AVIC Xi'an Flight Automatic Control Research Institute	
Zhi Li	AVIC Xi'an Flight Automatic Control Research Institute	
Wenling Wei	AVIC Xi'an Flight Automatic Control Research Institute	
13:30-15:30	SatA11.11	
<i>Study on the Measuring Device and Method of Sky Polarization</i>		

<i>Information</i>		Technology	
Chi Gao	Laiwu Vocational and Technical College	13:30-15:30	SatA11.20
<i>The Optimal Parameter Selection Method of the Coverage Scanning Line for the Forest Fire UAV</i>			
Heng Zhang	Laiwu Vocational and Technical College	Qingjie Zhang	Aviation Univ. of Air Force
Rongtao Zhang	Laiwu Vocational and Technical College	Liang Xu	Aviation Univ. of Air Force
13:30-15:30	SatA11.12	Qiongjian Fan	Aviation Univ. of Air Force
<i>Three-dimensional Path Planning of UAV based on an Improved A* Algorithm</i>			
Tianzhu Ren	Beihang Univ.	Jianwu Tao	Aviation Univ. of Air Force
Rui Zhou	Beihang Univ.	13:30-15:30	SatA11.21
Jie Xia	Beihang Univ.	<i>Fast Sliding Mode Control for Attitude Maneuver of a Flexible Spacecraft</i>	
Zhuoning Dong	Beihang Univ.	Guangde Xu	China Academy of Space Technology
13:30-15:30	SatA11.13	Zhongqiu Gou	China Academy of Space Technology
<i>Predicting MEMS Gyroscope's Random Drifts Using LSSVM Optimized by Modified PSO</i>			
Tianchuan Sun	The Second Artillery Engineering Univ.	Bainan Zhang	China Academy of Space Technology
Jieyu Liu	Xi'an Research Institute of High-tech	13:30-15:30	SatA11.22
13:30-15:30	SatA11.14	<i>Variational Bayesian Cubature Kalman Filter for Bearing-Only Tracking in Glint Noise Environment</i>	
<i>Fault Detection based on Sensitive Marginal Fisher Analysis for Class Imbalance</i>			
Zhiyan Han	Bohai Univ.	Tianli Ma	Northwestern Polytechnical Univ.
Jian Wang	Bohai Univ.	Xinmin Wang	Northwestern Polytechnical Univ.
13:30-15:30	SatA11.15	Rong Xie	Northwestern Polytechnical Univ.
<i>An Elimination Method for Transient High Frequency Oscillation Signal</i>			
Jianhai Zhang	Xi'an Jiaotong Univ.	Qi Bian	Northwestern Polytechnical Univ.
Lianzhou Li	Xi'an Jiaotong Univ.	13:30-15:30	SatA11.23
Jin Zou	Xi'an Jiaotong Univ.	<i>Modeling and Simulation for Piston Engine towards Flight Simulator</i>	
13:30-15:30	SatA11.16	Yongkang Jiao	Naval Aeronautical and Astronautical Univ.
<i>Research on Real Time of Flight Simulation System based on RTX</i>			
Yingyi Bao	The First Aircraft Institute, AVIC	Kunhu Kou	Naval Aeronautical and Astronautical Univ.
13:30-15:30	SatA11.17	Yong Chen	Naval Aeronautical and Astronautical Univ.
<i>Small Scale Helicopter System Identification based on Modified Particle Swarm Optimization</i>			
Qi Bian	Northwestern Polytechnical Univ.	13:30-15:30	SatA11.24
Xinmin Wang	Northwestern Polytechnical Univ.	<i>Robust Formation Control of Multiple PVTOL Aircraft with Parameter Uncertainties</i>	
Rong Xie	Northwestern Polytechnical Univ.	Yuchan Chen	Beihang Univ.
Ting Li	Northwestern Polytechnical Univ.	Baoli Ma	Beihang Univ.
Tianli Ma	Northwestern Polytechnical Univ.	13:30-15:30	SatA11.25
13:30-15:30	SatA11.18	<i>A Novel Mid-course Doctrine for Multiple Flight Vehicles Cooperative Interception</i>	
<i>The Safety Design Method and Its Application in Flight Control System</i>			
Yueheng Qiu	First Aircraft Design Institute of AVIC	Long Wang	Harbin Institute of Technology
Yakui Gao	First Aircraft Design Institute of AVIC	Yu Yao	Harbin Institute of Technology
Yongling Shu	First Aircraft Design Institute of AVIC	Fenghua He	Harbin Institute of Technology
Hao Wang	First Aircraft Design Institute of AVIC	Kai Liu	Beijing Institute of Aerospace Technology
13:30-15:30	SatA11.19	13:30-15:30	SatA11.26
<i>Reentry Guidance Method for Vehicle with Multi-Constraints based on ADRC</i>			
Cong Huang	Beihang Univ.	<i>Velocity Control for Trotting of a NUDT Quadruped Robot</i>	
Qingzhen Zhang	Beihang Univ.	Chunyu Chen	National Univ. of Defense Technology
Lin Cheng	Beihang Univ.	Honglei An	National Univ. of Defense Technology
Bin Li	China Academy of Launch Vehicle	Jian Wang	National Univ. of Defense Technology
		Hongxu Ma	National Univ. of Defense Technology
		Qing Wei	National Univ. of Defense Technology
		13:30-15:30	SatA11.27
		<i>Coupling Control Technology based on TLC and ADRC</i>	
		Dengjun Li	Beihang Univ.
		Qingzhen Zhang	Beihang Univ.

Lin Cheng	Beihang Univ.	<i>Research of Unit-testfor Aero-Engine Control Software</i>	
Yingxin Wang	China Academy of Launch Vehicle Technology Research and Development Center	Bo Xiong AVIC Aviation Motor Control System Institute	
13:30-15:30	SatA11.28	Ao Meng AVIC Aviation Motor Control System Institute	
<i>The Control in ECU of Aero Engine based Stepping Motorand Redundancy Design</i>			
Shang Cheng	AVIC Aviation Motor Control System Institute	Dong Wang AVIC Aviation Motor Control System Institute	
Xiaosheng Guo	AVIC Aviation Motor Control System Institute	13:30-15:30 SatA11.37	
Li Cen	AVIC Aviation Motor Control System Institute	<i>Design and Implementation of Monitor Software based on 1394b Bus</i>	
13:30-15:30	SatA11.29	Yuebing Zhang AVIC Aviation Motor Control System Institute	
<i>Parameters Identification of Gyroplane Longitudinal/Lateral Model from Flight Test</i>			
Xiaoqian Cheng	Xiamen Univ.	Dinghua Wang AVIC Aviation Motor Control System Institute	
Ran Xin	Xiamen Univ.	Yourong Ding Wuxi Institute of Technology	
Guoning Bao	Xiamen Univ.	13:30-15:30 SatA11.38	
Delin Luo	Xiamen Univ.	<i>Optimal Terminal Guidance Law Design based on Target Weaving Maneuver Compensation</i>	
Zhiming Guo	Xiamen Univ.	Guoning Bao Xiamen Univ.	
Liaoni Wu	Xiamen Univ.	Yang Xu Xiamen Univ.	
13:30-15:30	SatA11.30	Xiaoqian Cheng Xiamen Univ.	
<i>Research of Polarization Navigation System based on Division-of-Amplitude</i>			
Xin He	Beijing Institute of Technology	Liaoni Wu Xiamen Univ.	
Leilei Li	Beijing Institute of Technology	Delin Luo Xiamen Univ.	
Jiabin Chen	Beijing Institute of Technology	Dejin Zhang Xiamen Univ.	
Zhongyu Zhang	Beijing Institute of Technology	13:30-15:30 SatA11.39	
Yansheng Dai	Beijing Institute of Technology	<i>Simulation Data Interactive Test Technology Research based on RTX</i>	
13:30-15:30	SatA11.31	Feng Tan AVIC Aviation Motor Control System Institute	
<i>Variable Period Sampling of Aviation Motor Speed</i>			
Kangle Li	AVIC Aviation Motor Control System Institute	Xuejing Huang AVIC Aviation Motor Control System Institute	
Lin Xing	AVIC Aviation Motor Control System Institute	13:30-15:30 SatA11.40	
13:30-15:30	SatA11.32	<i>Terminal Guidance and Control for Kinetic Kill Vehicle Adopting Side Window Detection</i>	
<i>A Method for Embedded Systems Flash Check based on Background Task</i>			
Xu Liu	AVIC Aeroengine Control System Institute	Jingshuai Huang National Univ. of Defense Technology	
13:30-15:30	SatA11.33	Hongbo Zhang National Univ. of Defense Technology	
<i>Model based Definition (MBD) Technology Research</i>			
Yibo Zhou	AVIC Aviation Motor Control System Institute	Guanghai Li National Univ. of Defense Technology	
13:30-15:30	SatA11.34	Guojian Tang National Univ. of Defense Technology	
<i>Multi-robot Dynamic Virtual Potential Point Hunting Strategy based on FIS</i>			
Yong Duan	Shenyang Univ. of Technology	13:30-15:30 SatA11.41	
Xiao Huang	Shenyang Univ. of Technology	<i>Adaptive Control with Pseudo-Control Hedging for a Hypersonic Air Vehicle</i>	
Xia Yu	Shenyang Univ. of Technology	Weixiong Lu Beihang Univ.	
13:30-15:30	SatA11.35	Qingzhen Zhang Beihang Univ.	
<i>Cloud Computing Workflow Framework with Resource Scheduling Mechanism</i>			
Yan Wang	Northeastern Univ.	Kun Ni Beihang Univ.	
Jinkuan Wang	Northeastern Univ.	Song Ye Beihang Univ.	
Yinghua Han	Northeastern Univ.	13:30-15:30 SatA11.42	
13:30-15:30	SatA11.36	<i>Evaluation of Flights Operation Environment Risk based on Improved Set Pair Analysis</i>	
		Yijie Sun China Academy of Civil Aviation Science and Technology	
		Yuan Zhang China Academy of Civil Aviation Science and Technology	
		Yanqiu Chen China Academy of Civil Aviation	

Science and Technology	
13:30-15:30	SatA11.43
<i>Real-Time Task Reallocation for Large-scale UAV Team in Dynamic Environment</i>	
Fei Yan	Northwestern Polytechnical Univ.
Zhuang Shao	Northwestern Polytechnical Univ.
Zhou Zhou	Northwestern Polytechnical Univ.
Xiaoping Zhu	Northwestern Polytechnical Univ.
13:30-15:30	SatA11.44
<i>Nonlinear Control Design for a Reentry Warhead with Single Moving Mass</i>	
Kuo Hao	Beihang Univ.
Kun Ni	Beihang Univ.
Lin Cheng	Beihang Univ.
Guoguang Xu	Beijing Aerospace Automatic Control Institute
Guoqing Wang	China Academy of Launch Vehicle Technology
13:30-15:30	SatA11.45
<i>Improved PID Control Algorithm for Quadrotor based on MCS</i>	
Huaqing Zheng	Nanjing Univ. of Aeronautics & Astronautics
Qinghua Zeng	Nanjing Univ. of Aeronautics & Astronautics
Weina Chen	Nanjing Univ. of Aeronautics & Astronautics
Hua Zhu	Nanjing Univ. of Aeronautics & Astronautics
Chao Chen	Nanjing Univ. of Aeronautics & Astronautics
13:30-15:30	SatA11.46
<i>Research on Reentry Trajectory Division of Reusable Launch Vehicle</i>	
Zihao Xiong	Beihang Univ.
Ke Yi	Beihang Univ.
Fei Liu	Beihang Univ.
Zhang Ren	Beihang Univ.
13:30-15:30	SatA11.47
<i>Approach to Improving Maneuver Performance of Angular Rate-based Coning Algorithms</i>	
Chuanye Tang	Jiangsu Univ.
Jianfeng Chen	Jiangsu Univ.
Long Chen	Jiangsu Univ.
Haobin Jiang	Jiangsu Univ.
13:30-15:30	SatA11.48
<i>Research on Strategy to Decrease Wind Load of Solid Rocket with Multiple-Stage Boosters</i>	
Kaipeng Lu	National Univ. of Defense Technology
Luhua Liu	National Univ. of Defense Technology
Guojian Tang	National Univ. of Defense Technology
Weimin Bao	China Aerospace Science and Technology Corporation
13:30-15:30	SatA11.49
<i>Particle Filter-based Algorithm for Multiple Maneuvering Targets</i>	

<i>Tracking</i>	
Maolin Zhang	Beihang Univ.
Yunjie Wu	Beihang Univ.
13:30-15:30	SatA11.50
<i>Modeling and Multimodal Cue Control of the Human in the Loop based on Active Side Stick Technique</i>	
Shiqian Liu	Shanghai Jiaotong Univ.
Zhengren Lu	Shanghai Jiaotong Univ.
Xianglong Liangqing	Shanghai Jiaotong Univ.
Yong Wang	Xi'an Flight Automatic Control Institute of Chinese Aviation Industry
Yuanxiang Li	Shanghai Jiaotong Univ.
13:30-15:30	SatA11.51
<i>A Generic Trajectory Prediction and Smoothing Algorithm for Flight Management System</i>	
Duanzhang Liang	Tsinghua Univ.
Peng Cheng	Tsinghua Univ.
Nong Cheng	Tsinghua Univ.
13:30-15:30	SatA11.52
<i>Energy-based Switched Robust Control for Reusable Launch Vehicles</i>	
Zhepeng Sun	Beihang Univ.
Qing Wang	Beihang Univ.
Chaoyang Dong	Beihang Univ.
13:30-15:30	SatA11.53
<i>Modeling and Structure Characteristics Analysis for Flexible, High Aspect Ratio Flying Wings</i>	
Cong Lv	Shanghai Jiaotong Univ.
Shiqian Liu	Shanghai Jiaotong Univ.
Yong Wang	Xi'an Flight Automatic Control Institute of Chinese Aviation Industry
Zhengren Lu	Xi'an Flight Automatic Control Institute of Chinese Aviation Industry
Xianglong Liangqing	Shanghai Jiaotong Univ.
13:30-15:30	SatA11.54
<i>Research on Simulation and Evaluation of Space Station Operations</i>	
Shuai Guo	National Univ. of Defense Technology
Hua Wang	National Univ. of Defense Technology
Jin Zhang	National Univ. of Defense Technology
13:30-15:30	SatA11.55
<i>Analysis of the Controller with Disturbance Observer on Two Direct Drive Motor System</i>	
Liang Yan	Beihang Univ.
Qian Yu	Beihang Univ.
Zongxia Jiao	Beihang Univ.
Quan Guo	Beihang Univ.
13:30-15:30	SatA11.56
<i>Command and Control Configuration based on Service Reconfiguration for Unmanned Aircraft Systems</i>	
Ruoxin Shi	Beihang Univ.
Lifen Liu	Beihang Univ.
Shuandao Li	Beihang Univ.
Jiang Wu	Beihang Univ.
13:30-15:30	SatA11.57
<i>Modeling Strategy of High Order ARMA Model</i>	
Qi Wang	Xi'an High-tech Institution

Lixin Wang	Xi'an High-tech Institution
Qiang Shen	Xi'an High-tech Institution
13:30-15:30	SatA11.58
<i>Path Planning for UAVS based on Improved Artificial Potential Field Method through Changing the Repulsive Potential Function</i>	
Lifen Liu	Beihang Univ.
Ruoxin Shi	Beihang Univ.
Shuandao Li	Beihang Univ.
Jiang Wu	Beihang Univ.
13:30-15:30	SatA11.59
<i>An Optimization Algorithm for Trajectory Planning of a 7-Dof Redundant Manipulator</i>	
Hanchen Lu	Beihang Univ.
Xiaodong Zhou	Beijing Institute of Control Engineering
Rui Li	Beijing Institute of Control Engineering
13:30-15:30	SatA11.60
<i>Self-alignment for Strapdown INS Using Real-time Adaptive Filter</i>	
Jian Zhao	Beijing Univ. of Technology
Fujun Pei	Beijing Univ. of Technology
Hongyun Liu	Beijing Univ. of Technology
15:15-15:30	SatA11.61
<i>The Optimization of Drive and Sense Circuit in Silicon Micro-machined Resonant Accelerometer</i>	
Bin Yan	Tsinghua Univ.
Yunfeng Liu	Tsinghua Univ.
Jingxin Dong	Tsinghua Univ.

**SatB1 ROOM 206, Main Bld
Control Theory IV (Regular Session)**

Chairs: Bin Xu Northwestern Polytechnical Univ.
YanJun Zhang Nanjing Univ. of Aeronautics & Astronautics

15:50-16:05 SatB1.1

Modeling and Maneuvering Control for Tricopter based on the Back-stepping Method

Ziwei Song	Beihang Univ.
Kunpeng Li	Beihang Univ.
Zhihao Cai	Beihang Univ.
Yingxun Wang	Beihang Univ.
Ningjun Liu	Beihang Univ.

16:05-16:20 SatB1.2

A Survey on Singular Perturbation Theory in Aerospace Application

Wenjing Ren	Nanjing Univ. of Aeronautics & Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics
Hao Yang	Nanjing Univ. of Aeronautics & Astronautics

16:20-16:35 SatB1.3

Adaptive Control of Uncertain Nonlinear Aircraft Systems Using Combined Linearized Models

YanJun Zhang	Nanjing Univ. of Aeronautics & Astronautics
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Gang Tao	Nanjing Univ. of Aeronautics & Astronautics
Mou Chen	Nanjing Univ. of Aeronautics & Astronautics
Xunhong Lv	Nanjing Univ. of Aeronautics & Astronautics
16:35-16:50	SatB1.4

The Design of FOPI and FO[PI] Controllers for Large Time-delay System based on Smith Predictor

Ruihao Xin	Changchun Univ. of Science and Technology
Chunyang Wang	Changchun Univ. of Science and Technology
Mingqiu Li	Changchun Univ. of Science and Technology
Hongwei Shi	Changchun Univ. of Science and Technology
Zhenyu Liu	Changchun Univ. of Science and Technology

16:50-17:05 SatB1.5

Stability Analysis and Controller Design for Discrete-time Periodic Nonlinear Quadratic Systems

Shugui Kang	Shanxi Normal Univ.
Xia Zhao	Shanxi Normal Univ.
Fu Chen	Shanxi Datong Univ.

17:05-17:20 SatB1.6

Robust Stabilizability of Linear Plants with Time-varying Delays

Jing Zhu	Nanjing Univ. of Aeronautics & Astronautics
Dongdong Qi	North Univ. of China

17:20-17:35 SatB1.7

Stability Analysis and Controller Design for Discrete-Time Periodic Quadratic Systems

Hui Zhang	Shanxi Normal Univ.
Shugui Kang	Shanxi Normal Univ.
Fu Chen	Shanxi Datong Univ.

17:35-17:50 SatB1.8

Aircraft Anti-Skid Braking Control based on Pressure Servo Control Using High-Speed On/Off Valve

Ruonan Tian	Beihang Univ.
Zongxia Jiao	Beihang Univ.
Kejian Huang	Beihang Univ.
Xiaochao Liu	Beihang Univ.
Guanghui Jing	Beijing Research Institute of Precise Mechatronics and Controls

17:50-18:05 SatB1.9

Fuzzy Sliding Mode Tracking Control of the Quadrotor Unmanned Aerial Vehicle with Unknown Disturbances

Yong Wang	Dalian Maritime Univ.
Ning Wang	Dalian Maritime Univ.
Xiaoling Liang	Dalian Maritime Univ.
Meng Joo Er	Nanyang Technological Univ., Singapore

**SatB2 ROOM 205, Main Bld
Control Theory V (Regular Session)**

Chairs: Huijin Fan	Huazhong Univ. of Science and Technology	Chao Han	Beihang Univ.
Qian Shen	Nanjing Univ. of Aeronautics & Astronautics	Yukai Zhu	Beihang Univ.
15:50-16:05	SatB2.1	17:35-17:50	SatB2.8
<i>Application of Sliding Mode Assist Disturbance Observer on Flight Simulator</i>			
Jingxing Zuo	Beihang Univ.	Luwen Zhang	Harbin Institute of Technology
Yunjie Wu	Beihang Univ.	Chengchao Bai	Harbin Institute of Technology
He Li	Beihang Univ.	Jifeng Guo	Harbin Institute of Technology
16:05-16:20	SatB2.2	Han Zheng	Harbin Institute of Technology
<i>Tracking and Docking Control of Receiver Aircraft based on Robust Dynamic Inversion</i>			
Qian Shen	Nanjing Univ. of Aeronautics & Astronautics	17:50-18:05	SatB2.9
Suozhong Yuan	Nanjing Univ. of Aeronautics & Astronautics	<i>Eliminate the Surplus Torque of Electro-Hydraulic Load Simulator Using the Actuator Command Dynamic Compensation Control</i>	
Hu Zhu	Nanjing Univ. of Aeronautics & Astronautics	Zhihui Li	Beihang Univ.
16:20-16:35	SatB2.3	Zongxia Jiao	Beihang Univ.
<i>Robust Adaptive Tracking Control for Uncertain Nonlinear Systems with External Disturbances</i>			
Yashun Zhang	Beijing Aerospace Automatic Control Institute	Yaoxing Shang	Beihang Univ.
Hui Wang	Beijing Aerospace Automatic Control Institute	Shuai Wu	Beihang Univ.
Chao Yang	Beijing Aerospace Automatic Control Institute	SatB3 ROOM 204, Main Bld	
16:35-16:50	SatB2.4	Control Theory VI (Regular Session)	
<i>Improved Adaptive Hinf Controller Synthesis of Piecewise Affine Systems with Application to Flight Control</i>			
Liu Kai	Beijing Institute of Aerospace Technology	Chairs: Xiang Yu	Hunan Univ.
Wenxue She	Beijing Institute of Aerospace Technology	Binwen Lu	Concordia Univ.
Jianhong Zhang	Beijing Institute of Aerospace Technology	15:50-16:05	National Univ. of Defense Technology
Zhiyong She	Beijing Institute of Aerospace Technology	<i>TOC-PID Control for Double Integrating Systems with Input Saturation</i>	
16:50-17:05	SatB2.5	Yaozhong Yu	Beihang Univ.
<i>Stability of Time-delayed Neutral Systems based on Novel Integral Inequalities</i>			
Haitao Zhang	PLA Univ. of Science and Technology	Chen Yang	Beihang Univ.
Tao Li	Nanjing Univ. of Aeronautics & Astronautics	Hong Jiang	Beihang Univ.
Shumin Fei	Southeast Univ.	Tianqu Zhao	Beihang Univ.
Ting Wang	Nanjing Forestry Univ.	16:05-16:20	SatB3.2
17:05-17:20	SatB2.6	<i>Adaptive Neural Network Tracking for a Class of Markov Jump Stochastic Nonlinear Systems based on Extreme Learning Machine</i>	
<i>Pattern-based NN Control of a Class of Nonlinear Systems</i>			
Feifei Yang	South China Univ. of Technology	Pengpeng Wang	Guizhou Univ.
Wenjie Si	South China Univ. of Technology	Fei Long	Guizhou Univ.
Qian Wang	South China Univ. of Technology	Yi Tan	Guizhou Univ.
17:20-17:35	SatB2.7	16:20-16:35	SatB3.3
<i>Disturbance Observer based Composite Attitude Stabilization of Flexible Spacecraft</i>			
Boulanouar Khouane	Beihang Univ.	<i>LQR-MRC Active Fault Tolerant Control for More-electric Aircraft without Hydraulic Power</i>	
		Zhihan Zhou	Beihang Univ.
		Shaoping Wang	Beihang Univ.
		Xingjian Wang	Beihang Univ.
		Jun Wang	Beihang Univ.
		16:35-16:50	SatB3.4
		<i>The Design of Fault-Tolerant Flight Control within Actuator Control Authority</i>	
		Xiang Yu	Hunan Univ.
		Yu Fu	Concordia Univ.
		Youmin Zhang	Xi'an Univ. of Technology.
		16:50-17:05	SatB3.5
		<i>Control Allocation based Adaptive Dynamic Inversion Fault Tolerant Control Scheme for an Uncertain Aircraft</i>	
		Binwen Lu	National Univ. of Defense Technology
		Jianjun Ma	National Univ. of Defense

Zhiqiang Zheng	National Univ. of Defense Technology	Wenbin Ge	AVIC Guizhou Aircraft Corporation Ltd.
17:05-17:20	SatB3.6	Yong Bao	AVIC Guizhou Aircraft Corporation Ltd.
<i>Adaptive Fault Tolerant Control Design for UAV with Multiple Actuator Faults</i>			
Moshu Qian	Nanjing Univ. of Aeronautics & Astronautics	Wenying Chen	North China Electric Power Univ.
Zhifeng Gao	Nanjing Univ. of Posts and Telecommunications	Libin Yang	Electric Power Research Institute of Qinghai Power Grid Corporation
17:20-17:35	SatB3.7	Weiliang Liu	North China Electric Power Univ.
<i>Fault Diagnosis and Fault-tolerant Predictive Control for Hypersonic Vehicle</i>			
Yizhen Meng	Nanjing Univ. of Aeronautics & Astronautics	Yinsong Wang	North China Electric Power Univ.
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics	Dong Wang	North China Electric Power Univ.
Ruiyun Qi	Nanjing Univ. of Aeronautics & Astronautics	16:35-16:50	SatB4.4
Jianwei Liu	Nanjing Univ. of Aeronautics & Astronautics	<i>A Multi-object Black Hole Gravitational Search Algorithm for Day-ahead Reactive Optimization in Distribution Network</i>	
17:35-17:50	SatB3.8	Hongyan Pei	Beihang Univ.
<i>Active Fault Tolerant Control of a Completely Damaged Vertical Tail Aircraft with Differential Engine Thrust and Left-Over Surfaces</i>			
Abdul Hannan	Beihang Univ.	Yunhua Li	Beihang Univ.
Shaoping Wang	Beihang Univ.	Keyan Liu	Electric Power Research Institute of China
Xingjian Wang	Beihang Univ.	16:50-17:05	SatB4.5
Jun Wang	Beihang Univ.	<i>A New Projection-based K-Means Initialization Algorithm</i>	
17:50-18:05	SatB3.9	Wei Du	Shenyang Institute of Computing Technology, Univ. of Chinese Academy of Sciences
<i>Receding Horizon Optimal Controller for Reference Trajectory Tracking in Mars Entry Guidance</i>			
Yuechen Huang	National Univ. of Defense Technology	Hu Lin	Shenyang Institute of Computing Technology
Haiyang Li	National Univ. of Defense Technology	Jianwei Sun	Shenyang Institute of Computing Technology
SatB4 ROOM 203, Main Bld Intelligent Computing & Control (Regular Session)			
Chairs: Fuyang Chen	Nanjing Univ. of Aeronautics & Astronautics	Bo Yu	Shenyang Institute of Computing Technology
Tie Liu	Beihang Univ.	Haibo Yang	Shenyang Institute of Computing Technology
15:50-16:05	SatB4.1	17:05-17:20	SatB4.6
<i>Protein Secondary Structure Prediction via Pigeon-Inspired Optimization</i>			
Wei Zheng	Beihang Univ.	<i>Design and Implementation of Distributed Simulation of Spatial Non-Cooperative Targets On-orbit Rescuing</i>	
Hemeng Sun	Beihang Univ.	Dake Chen	China Academy of Space Technology
Haibin Duan	Beihang Univ.	Xinlong Chen	China Academy of Space Technology
16:05-16:20	SatB4.2	Shiyu Chen	Tsinghua Univ.
<i>ACO-DD: An Improved Framework for UAV Autonomous Landing Recognition based on Multiple Instance Learning</i>			
Suyang An	AVIC Guizhou Aircraft Corporation Ltd.	17:20-17:35	SatB4.7
Feijuan Zhang	AVIC Guizhou Aircraft Corporation Ltd.	<i>Astronomical Image Restoration Using Bayesian Methods</i>	
Chu Li	Xi'an Jiaotong Univ.	Xiaoping Shi	Harbin Institute of Technology
Yu Zhang	AVIC Guizhou Aircraft	Rui Guo	Harbin Institute of Technology
		Zicai Wang	Harbin Institute of Technology
		17:35-17:50	SatB4.8
		<i>Research on Forecasting the Market Demand of Sci-tech Service Industry based on Improved GMDH Algorithm</i>	
		Wen Lei	Nanjing Univ. of Aeronautics & Astronautics
		Jing Wang	Nanjing Univ. of Aeronautics & Astronautics
		Bin Huang	Jiangsu Academy of Science & Technology for Development
		Fuyang Chen	Nanjing Univ. of Aeronautics &

Astronautics	
17:50-18:05	SatB4.9
<i>A Dynamic Reactive Power Compensation Method for High-power and High-voltage Electronic Motors based on Self-adaptive Fuzzy PID Control</i>	
Yifei Wang	Wuhan Univ. of Technology
Youxin Yuan	Wuhan Univ. of Technology
SatB5 ROOM 208, Bld 1	
Navigation Technology II (Regular Session)	
Chairs: Xiwang Dong Beihang Univ.	
Dongyang Zhang Beijing Institute of Technology	
15:50-16:05	SatB5.1
<i>A New Positioning Method by Two GNSS Satellites and Relative Position Constraint</i>	
Zheng Li	Beihang Univ.
Hai Zhang	Beihang Univ.
Huan Che	Space Star Technology Co. Ltd
16:05-16:20	SatB5.2
<i>The Error Correction Method of the Inertial Altitude based on Air Data</i>	
Yijie Dai	Nanjing Univ. of Aeronautics & Astronautics
Li Xing	Nanjing Univ. of Aeronautics & Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics & Astronautics
Rong Wang	Nanjing Univ. of Aeronautics & Astronautics
Zhong Wan	Nanjing Univ. of Aeronautics & Astronautics
16:20-16:35	SatB5.3
<i>A PSF Estimation Method based on Joint Transform Correlation</i>	
Tao Zhang	Xi'an Research Institute
Hongli Wang	Xi'an Research Institute
Jinhui Lu	Xi'an Research Institute
16:35-16:50	SatB5.4
<i>Analysis on Error Motivated by Different Measurement Setting of SINS/SMNS System based on Modified Kalman Filtering</i>	
Shengdi Zhang	National Univ. of Defense Technology
Xiaojun Duan	National Univ. of Defense Technology
Xiaojun Peng	Rocket Force Equipment Academe
Qiang Zhang	Rocket Force Equipment Academe
16:50-17:05	SatB5.5
<i>A Coarse-to-precise Matching Strategy in Navigation</i>	
Hongjun Liu	China Academy of Launch Vehicle Technology
Binbin Geng	China Academy of Launch Vehicle Technology
Ze Wang	China Academy of Launch Vehicle Technology
Yan Lv	China Academy of Launch Vehicle Technology

17:05-17:20	SatB5.6
<i>Research on Beidou/INS Integrated Countermeasures for Repeater Jamming</i>	
Huiwen Lv	Academy of Equipment Command & Technology
Libing Wang	Science and Technology on the 63961 Forces of Chinese People's Liberation Army
Yanlei Zhao	The 54th Research Institute of China Electronics Technology Group Corporation
Pengfei Liu	The 54th Research Institute of China Electronics Technology Group Corporation
17:20-17:35	SatB5.7
<i>The Application of Square-Root Cubature Kalman Filter in the SINS/CNS Integrated Navigation System</i>	
Dongyang Zhang	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
Bo Wang	Beijing Institute of Technology
Mengyin Fu	Nanjing Univ. of Science and Technology
17:35-17:50	SatB5.8
<i>On Measurement-While-Drilling based on Rotational Inertial Navigation System</i>	
Xiaoqiang Sha	Beihang Univ.
Jianhui Zhao	Beihang Univ.
Jin Li	Beihang Univ.
Cundu Zhang	Beihang Univ.
17:50-18:05	SatB5.9
<i>Geomagnetic Matching Algorithm based on Support Vector Machine</i>	
Yuxia Liu	Shannxi Baocheng Aviation Instrument Corp.
Peng Zhang	Shannxi Baocheng Aviation Instrument Corp.
SatB6 ROOM 209, Bld 1	
GNC (Other Motion) I (Regular Session)	
Chairs: Zhang Ren Beihang Univ.	
Jinlong Zhao Northwestern Polytechnical Univ.	
15:50-16:05	SatB6.1
<i>Involute Guidance Laws with Terminal Impact Angle Constraints</i>	
Jieyao Wang	Beijing System Design Institute of Electro-Mechanic Engineering
Shiyong Zhong	Beijing System Design Institute of Electro-Mechanic Engineering
Yong Jiang	China Aerospace Science & Industry Corp.
16:05-16:20	SatB6.2
<i>A Nonsingular SMC-based Guidance Law for an Accelerating Exoatmospheric Missile</i>	
Qing Ye	Nanjing Univ. of Aeronautics & Astronautics
Chunsheng Liu	Nanjing Univ. of Aeronautics & Astronautics
16:20-16:35	SatB6.3

MPC-Consensus based Optimal Cooperative Guidance Law Design

Shen Kang	Beijing Institute of Technology
Jianan Wang	Beijing Institute of Technology
Guang Li	Univ. of London, UK
Jiayuan Shan	Beijing Institute of Technology
16:35-16:50	SatB6.4

Maneuvering Target Interception using Retrospective-Cost-Based Adaptive Input and State Estimation

M. N. Tahir	Beihang Univ.
Zhang Ren	Beihang Univ.
16:50-17:05	SatB6.5

Adaptive Sliding-Mode Guidance with Terminal Angle Constraints based on Explicit Space Engagement Model

Yuhang Yun	Beijing Institute of Technology
Shengjing Tang	Beijing Institute of Technology
Jie Guo	Beijing Institute of Technology
Yunqiang Zhou	Beijing Institute of Space Long March Vehicle
17:05-17:20	SatB6.6

Receding Horizon Integrated Guidance and Control for Interceptors based on Gauss Pseudospectral Method

Jinlong Zhao	Northwestern Polytechnical Univ.
Jun Zhou	Northwestern Polytechnical Univ.
17:20-17:35	SatB6.7

Analysis and Design of Terminal Guidance with Large Angular on a Saucer-Shaped UAV

Jia Deng	Beihang Univ.
Sentang Wu	Beihang Univ.
Zhihui Xing	Beihang Univ.
17:35-17:50	SatB6.8

A Study of Aircraft-Defense Missile Cooperative Active Defense Technology

Xiaoping Wang	Xi'an Jiaotong Univ.
Lutong Wang	Xi'an Jiaotong Univ.
Qinying Lin	Xi'an Jiaotong Univ.
Minghui Xia	Xi'an Jiaotong Univ.
Liangliang Chen	The Science and Technology on Electro-optic Control Laboratory
17:50-18:05	SatB6.9

Numerical Predictive Entry Guidance for Mars Low-Lifting Vehicles

Rui Teng	Beijing Institute of Technology
Dong Qiao	Beijing Institute of Technology
Hongwei Han	Beijing Institute of Technology

SatB7 ROOM 212, Bld 1
GNC (Other Motion) II (Regular Session)

Chairs: Ning Wang	Dalian Maritime Univ.
Jianwen Zhu	National Univ. of Defense Technology
15:50-16:05	SatB7.1

A Pitch Autopilot Design for Blended Aero and Reaction-jet Air-to-air Missile via Piecewise Sliding Mode Control

Xin Huo	Harbin Institute of Technology
Jiping Peng	Harbin Institute of Technology
Kemao Ma	Harbin Institute of Technology

Jinpeng Zhang	China Airborne Missile Academy
Jipeng Dong	China Airborne Missile Academy
16:05-16:20	SatB7.2

Terminal Trajectory Optimization for Morphing Wing Missile with Multi-constraints

Chao Ming	Nanjing Univ. of Science and Technology
Ruisheng Sun	Nanjing Univ. of Science and Technology
Hongyang Bai	Nanjing Univ. of Science and Technology
16:20-16:35	SatB7.3

Acceleration Autopilot Design of Spinning Missiles based on Stability

Keyong Li	Shanghai Electro-Mechanical Engineering Institute
Yanan Yu	Shanghai Aerospace Control Engineering Institute
Hui Wang	Shanghai Electro-Mechanical Engineering Institute
Zhiwei Mei	Shanghai Electro-Mechanical Engineering Institute
16:35-16:50	SatB7.4

Characteristic Model-based Robust Predictive Control for Reentry Hypersonic Vehicle with Constraints

Shengzhen Zhu	Jiangsu Univ.
Yahui Li	China Academy of Launch Vehicle Technology
Jun Zhang	Jiangsu Univ.
Tairen Sun	Jiangsu Univ.
16:50-17:05	SatB7.5

An Adaptive Predictor-Corrector Entry Guidance Law based on Online Parameter Estimation

Weijie Li	Beihang Univ.
Sihao Sun	Beihang Univ.
Zuojun Shen	Beihang Univ.
17:05-17:20	SatB7.6

Integrated Diving Guidance Strategy with Multiple Constraints

Jianwen Zhu	National Univ. of Defense Technology
Luhua Liu	National Univ. of Defense Technology
Guojian Tang	National Univ. of Defense Technology
Weimin Bao	China Aerospace Science and Technology Corporation
17:20-17:35	SatB7.7

Calculation Method for Air Data based on Information from Inertial Navigation System and Wind Field

Chen Lu	Nanjing Univ. of Aeronautics & Astronautics
Rongbing Li	Nanjing Univ. of Aeronautics & Astronautics
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
Tingwan Lei	Chengdu Aircraft Design and Research Institute

17:35-17:50	SatB7.8
<i>Finite-Time Disturbance Observer based Non-Singular Integral Terminal Sliding Mode Trajectory Tracking Control of Unmanned Surface Vehicles</i>	
Shuailin Lv	Dalian Maritime Univ.
Ning Wang	Dalian Maritime Univ.
Xiaoling Liang	Dalian Maritime Univ.
Meng Joo Er	Nanyang Technological Univ.
17:50-18:05	SatB7.9
<i>TV Guidance Technical Schemes for Manned Lunar Soft Landing</i>	
Xibao Xu	Harbin Institute of Technology
Jifeng Guo	Harbin Institute of Technology
Chengchao Bai	Harbin Institute of Technology
Luwen Zhang	Harbin Institute of Technology

**SatB8 ROOM 210, Bid 1
GNC (Other Motion) III (Regular Session)**

Chairs: Qun Zong Tianjin Univ.	
Lu Feng	Beijing Institute of Technology
15:50-16:05	SatB8.1
<i>Dipolar Field based 3-Dimensional Homing Guidance Algorithm for Autonomous Underwater Vehicles</i>	
Yong Li	Northwestern Polytechnical Univ.
Weisheng Yan	Northwestern Polytechnical Univ.
Jian Gao	Northwestern Polytechnical Univ.
Beibei Qi	Northwestern Polytechnical Univ.
16:05-16:20	SatB8.2
<i>Absolute Velocity Damping Algorithm with Varying Damping Ratio for Inertial Navigation Systems based on Kalman Filter</i>	
Lu Feng	Beijing Institute of Technology
Zhihong Deng	Beijing Institute of Technology
Bo Wang	Beijing Institute of Technology
Shunting Wang	Beijing Institute of Technology
16:20-16:35	SatB8.3
<i>Applications of RGB-D Data for 3D Reconstruction in the Indoor Environment</i>	
Runyang Zou	Shanghai Jiao Tong Univ.
Xueshi Ge	Naval Acad. of Armament
Geng Wang	Shanghai Jiao Tong Univ.
16:35-16:50	SatB8.4
<i>Adaptive Nonsingular Fast Terminal Sliding Mode Control for Flight Simulator Servo System</i>	
Chao Cai	Shanghai Aircraft Design and Research Institute
Weihong Wang	Beihang Univ.
16:50-17:05	SatB8.5
<i>Design and Realization of A Mobile Seamless Navigation and Positioning System based on Bluetooth Technology</i>	
Xiaoxue Zhang	Nanjing Univ. of Aeronautics & Astronautics
Qinghua Zeng	Nanjing Univ. of Aeronautics & Astronautics
Qian Meng	Nanjing Univ. of Aeronautics & Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics & Astronautics

Weixing Qian	Nanjing Normal Univ.
17:05-17:20	SatB8.6
<i>Formulation and Analysis of Torque Output for Torque Motor with Limited Rotation Angles</i>	
Liang Yan	Beihang Univ.
Ziqi Zhang	Beihang Univ.
Zongxia Jiao	Beihang Univ.
Shiyong Niu	Science and Technology on Aircraft Control Laboratory
Yifeng Dong	Science and Technology on Aircraft Control Laboratory
Wei Cao	Science and Technology on Aircraft Control Laboratory

17:20-17:35	SatB8.7
<i>Optimal Ballistic Coefficient Control for Mars Aerocapture</i>	
Hongwei Han	Beijing Institute of Technology
Dong Qiao	Beijing Institute of Technology
Hongbo Chen	China Academy of Launch Vehicle Technology

17:35-17:50	SatB8.8
<i>Analysis of Hydraulic Servo Loading System for High-speed Bearing in Ultra-low Temperature Environment</i>	
Yongguang Liu	Beihang Univ.
Hui Hu	Beihang Univ.
Hengzhen Zhang	Beihang Univ.

17:50-18:05	SatB8.9
<i>Some Integrals Observed in Spacecraft Relative Motion Problem with Circular Reference Orbit</i>	
Zhaohui Dang	Academy of Equipment, Beijing
Shengyong Tang	Institute of Aerospace Systems Engineering, Shanghai
Min Hu	Academy of Equipment, Beijing

**SatB9 ROOM 310, Main Bid
Modeling & Simulation II (Regular Session)**

Chairs: Delin Luo Xiamen Univ.	
Yong Cai	Fudan Univ.
15:50-16:05	SatB9.1
<i>Research on the Mechanism and the Impact of Jamming on Beidou Software Receiver</i>	
Chong Zhang	Luoyang Electronic Equipment Test Center
Li Shui	Luoyang Electronic Equipment Test Center
He Huang	Luoyang Electronic Equipment Test Center
Qingliang Chen	Luoyang Electronic Equipment Test Center
Hong Liu	Luoyang Electronic Equipment Test Center
Haisong Jiao	Luoyang Electronic Equipment Test Center
Feng Li	Luoyang Electronic Equipment Test Center
16:05-16:20	SatB9.2
<i>Dynamic Modeling and Performance Analysis of a Hose-Drogue Aerial Refueling System based on the Kane Equation</i>	

Ling Wu	Nanjing Univ. of Aeronautics & Astronautics
Yongrong Sun	Nanjing Univ. of Aeronautics & Astronautics
Bin Huang	Nanjing Univ. of Aeronautics & Astronautics
Rongbing Li	Nanjing Univ. of Aeronautics & Astronautics
Yunfeng Zhu	Nanjing Univ. of Aeronautics & Astronautics
16:20-16:35	SatB9.3
<i>Improved Digital Model of Parafoil-Unmanned Aerial Vehicle Accurate Recycling System</i>	
Mingjun Li	Northwestern Polytechnical Univ.
Jianguo Yan	Northwestern Polytechnical Univ.
Yuan Liu	Northwestern Polytechnical Univ.
16:35-16:50	SatB9.4
<i>A Simple Radar Echoes Model of Walking Human Target</i>	
Jie Wang	Shanghai Radio Equipment Research Institute
Yuqi Li	Shanghai Radio Equipment Research Institute
Xianchao Ma	Shanghai Radio Equipment Research Institute
Jing Wang	Shanghai Radio Equipment Research Institute
16:50-17:05	SatB9.5
<i>A Novel Proportional Pressure Valve based on Depressurization Using Hydraulic Half-bridge</i>	
Xiaochao Liu	Beihang Univ.
Yaoping Shang	Beihang Univ.
Zongxia Jiao	Beihang Univ.
17:05-17:20	SatB9.6
<i>Numerical Analysis on the Wake Field Aerodynamic Noise of Aero-engine System</i>	
Xinrong Cong	Academy of Mathematics and Systems Science, Chinese Academy of Sciences
Xiaoling Liang	Dalian Maritime Univ.
17:20-17:35	SatB9.7
<i>Multi-robot System based on Cloud Platform</i>	
Yong Duan	Shenyang Univ. of Technology
Xiangyou Yu	Shenyang Univ. of Technology
17:35-17:50	SatB9.8
<i>Research of Evaluation Model of Development Assurance Standards</i>	
Yong Cai	Fudan Univ.
Yue Shen	Commercial Aircraft Corporation of China Ltd.
17:50-18:05	SatB9.9
<i>Adaptive Motion Cueing Algorithm based on Fuzzy Tuning for Improving Human Sensation</i>	
Zhiyong Tang	Beihang Univ.
Hu Ma	Beihang Univ.
Zhongcai Pei	Beihang Univ.
Jinhui Zhang	North Information Control Group Co. Ltd., Nanjing

SatB10		ROOM 308, Main Bld	
New Progress in GNC II (Regular Session)			
Chairs: Randy W. Beard		Brigham Young University, USA	
Ming Li		Shenyang Aircraft Design and Research Institute	
15:15-15:30		SatB10.1	
<i>Online Schedule for Autonomy of Multiple Unmanned Aerial Vehicles</i>			
Kemao Peng		National Univ. of Singapore, Singapore	
Feng Lin		National Univ. of Singapore, Singapore	
Ben M Chen		National Univ. of Singapore, Singapore	
15:30-15:45		SatB10.2	
<i>A Bearing-Assisted TDOA-GROA Passive Target Tracking Algorithm</i>			
J. A. Luo		Hangzhou Dianzi Univ.	
D. L. Peng		Hangzhou Dianzi Univ.	
A. K. Xue		Hangzhou Dianzi Univ.	
15:45-16:00		SatB10.3	
<i>Multi-objective Optimal Preliminary Planning of a Multi-Debris Active Removal Mission in LEO</i>			
Yong Liu		Northwestern Polytechnical Univ.	
Jianan Yang		Northwestern Polytechnical Univ.	
Yizhou Wang		Northwestern Polytechnical Univ.	
Quan Pan		Northwestern Polytechnical Univ.	
Jianping Yuan		Northwestern Polytechnical Univ.	
16:00-16:15		SatB10.4	
<i>Automatic Rebuild Salient Object Sequence from Video</i>			
Tie Liu		Beihang Univ.	
Haibin Duan		Beihang Univ.	
Zejian Yuan		Xi'an Jiaotong Univ.	
SatB11		ROOM 307, Main Bld	
Interactive Session II			
Chairs: Lin Tie		Beihang Univ.	
Wei Wang		Beihang Univ.	
15:50-18:05		SatB11.1	
<i>Aircraft Type Classification based on an Optimized Bag of Words Model</i>			
Xufeng Zhu		Beijing Aerospace Automatic Control Institute	
Biao Ma		Beijing Aerospace Automatic Control Institute	
Guanjun Guo		Beijing Aerospace Automatic Control Institute	
Gangjun Liu		Beijing Aerospace Automatic Control Institute	
15:50-18:05		SatB11.2	
<i>Fault Detection of Networked Control Systems: An Input Delay Approach</i>			
Liwei Ma		Beijing Aerospace Automatic Control Institute	
Bo Zhao		Beijing Aerospace Automatic Control Institute	

Lu Sun	Beijing Aerospace Automatic Control Institute	Wei Wang	Southeast Univ.
15:50-18:05	SatB11.3	Xiyuan Chen	Southeast Univ.
<i>Research of the Network Structure in Beyond-Visual-Range Coordinated Air Combat</i>		<i>Effective Sage-Husa Kalman Filter for SINS/Doppler/Platform Compass Integrated Navigation System</i>	
Jie Zou	Science and Technology on Electro-optic Control Laboratory, Luoyang	Jianjuan Liu	Henan Univ. of Technology
Wei Wu	Science and Technology on Electro-optic Control Laboratory, Luoyang	Hongmei Chen	Henan Univ. of Technology
15:50-18:05	SatB11.4	Nanbo Liu	Henan Univ. of Technology
<i>Technology for Low Cost AHRS: A Survey</i>		<i>A Rapid Landing Footprint Calculation Method for Entry Vehicles</i>	
Long Shi	AVIC Xi'an Flight Automatic Control Research Institute	Ning Zhang	Beihang Univ.
Wei Li	AVIC Xi'an Flight Automatic Control Research Institute	Chao Wang	China Academy of Aerospace Aerodynamics
Zhirong Lei	AVIC Xi'an Flight Automatic Control Research Institute	Feng Li	China Academy of Aerospace Aerodynamics
15:50-18:05	SatB11.5	15:50-18:05 SatB11.12	
<i>Modeling and Active Disturbance Rejection Controller Design of Spin Missiles</i>		<i>Optimal Path Planning for Multi-target Observation of Remote Sensing Satellite</i>	
Siyuan Zhong	Beihang Univ.	Hongliang Li	Beihang Univ.
Lin Cheng	Beihang Univ.	Yunhua Li	Beihang Univ.
Qingzhen Zhang	Beihang Univ.	15:50-18:05 SatB11.13	
Gang Xiang	Beijing Aerospace Automatic Control Institute	<i>Analysis and Simulation of Simplified Airdrop Trajectory based on MATLAB/SIMULINK</i>	
15:50-18:05	SatB11.6	Mingze Ma	AVIC The First Aircraft Institute
<i>Real-time Obstacle Avoidance for Fixed-wing Vehicles in Complex Environment</i>		15:50-18:05 SatB11.14	
Rong Ma	Xi'an Flight Automatic Control Research Institute	<i>Single Leg Operational Space Control of Quadruiped Robot based on Reinforcement Learning</i>	
Wen Ma	Xi'an Flight Automatic Control Research Institute	Jinhui Rao	National Univ. of Defense Technology
Xiaolong Chen	Xi'an Flight Automatic Control Research Institute	Honglei An	National Univ. of Defense Technology
Jia Li	Xi'an Flight Automatic Control Research Institute	Taihui Zhang	National Univ. of Defense Technology
15:50-18:05	SatB11.7	Yangzhen Chen	National Univ. of Defense Technology
<i>On Method of Aerodynamic Parameter Modeling and Online Identification in Boost Phase of the Missile</i>		Hongxu Ma	National Univ. of Defense Technology
Leyuan Sun	National Univ. of Defense Technology	15:50-18:05 SatB11.15	
Zhenyu Jiang	National Univ. of Defense Technology	<i>Optimal Control Problems for the Low-Thrust Orbit</i>	
Zhenxin Huang	National Univ. of Defense Technology	Chengqing Xie	Harbin Institute of Technology
15:50-18:05	SatB11.8	Yingchun Zhang	Harbin Institute of Technology
<i>Multiple Channels Sensor Data Acquisition Device based on Android Mobile</i>		Shenzhen Aerospace Dongfanghong HIT Satellite Company Ltd.	
Xi Lin	National Univ. of Defense Technology	15:50-18:05 SatB11.16	
Shengfu Yuan	National Univ. of Defense Technology	<i>Energy-optimal Path Planning based on Lithium Battery Status for Solar-Powered Aircraft</i>	
Xiaoting Fang	National Univ. of Defense Technology	Bing Xu	Beihang Univ.
15:50-18:05	SatB11.9	Xiaoyu Geng	Beihang Univ.
<i>The Temperature Compensation Method of Fiber Optic Gyroscope based on EEMD, B-Spline and SVM</i>		Qingdong Li	Beihang Univ.
		Zhang Ren	Beihang Univ.
		15:50-18:05 SatB11.17	
		<i>Remaining Useful Life Prognostics of Aircraft Engine based on Fusion Algorithm</i>	
		Xinxin Xiong	Tsinghua Univ.
		Qing Li	Tsinghua Univ.
		Nong Cheng	Tsinghua Univ.
		15:50-18:05 SatB11.18	

<i>Method of Visible Light Cooperative Objects Segmentation and Extraction Oriented to Vision-based Automatic Landing of UAV</i>		Minghong Zhu	China Aerodynamics Research and Development Center
Maowu Chen	Nanjing Univ. of Aeronautics & Astronautics	Bowen Nie	China Aerodynamics Research and Development Center
15:50-18:05		SatB11.25	
<i>Application in Engineering Optimization based on Chameleon Algorithm</i>			
Guili Xu	Nanjing Univ. of Aeronautics & Astronautics	Peng Yao	Air Force Engineering Univ.
Zhengsheng Wang	Nanjing Univ. of Aeronautics & Astronautics	Chao Feng	Air Force Engineering Univ.
15:50-18:05		SatB11.26	
<i>Simulation Design of Flight Management System based on Training Simulator</i>			
Yuehua Cheng	Nanjing Univ. of Aeronautics & Astronautics	Yun Ji	AVIC The First Aircraft Institute
15:50-18:05		SatB11.19	
<i>Time Optimal Control of Mini-submarine Missile based on Control Variable Parameterization with Enhanced Time-scaling Method</i>			
Nuan Wen	Beihang Univ.	Xicang Li	AVIC The First Aircraft Institute
Zhenghua Liu	Beihang Univ.	15:50-18:05	
Le Chang	Beihang Univ.	SatB11.27	
Yan Ren	Beihang Univ.	<i>The Design of Longitudinal Control Augmentation System for Aircraft based on L1 Adaptive Control</i>	
15:50-18:05		SatB11.20	
<i>Multiple Spacecraft Formation Reconfiguration Planning with Nonconvex Collision Avoidance Constraints</i>			
Ding Zhou	Harbin Institute of Technology	Qingyuan Ma	Northwestern Polytechnical Univ.
Yuting Hu	Harbin Institute of Technology	Xiaoxiong Liu	Northwestern Polytechnical Univ.
Shunli Li	Harbin Institute of Technology	Chuang Li	Northwestern Polytechnical Univ.
15:50-18:05		SatB11.28	
<i>Research on UAVs Formation Reconfiguration based on Dubins Path</i>			
Qiheng Zhang	Beijing Aerospace Institute of Automation Control	Yue Li	National Univ. of Defense Technology
Wen Ju	Beijing Aerospace Institute of Automation Control	Qingyang Chen	National Univ. of Defense Technology
Hongquan Yun	Beijing Aerospace Institute of Automation Control	Zhongxi Hou	National Univ. of Defense Technology
15:50-18:05		SatB11.29	
<i>UAVs Formation Flight Control based on Following of the Guidance Points</i>			
15:50-18:05		SatB11.22	
<i>Handling Qualities Evaluation of Predictive Display Model for Rendezvous and Docking in Lunar Orbit with Large Time Delay</i>			
15:50-18:05		SatB11.30	
<i>Handling Qualities Evaluation of Predictive Display Model for Rendezvous and Docking in Lunar Orbit with Large Time Delay</i>			
Sen Feng	National Univ. of Defense Technology	Yakun Zhang	National Univ. of Defense Technology
Kun Liu	National Univ. of Defense Technology	Haiyang Li	National Univ. of Defense Technology
Zhizhou Zhang	National Univ. of Defense Technology	15:50-18:05	
15:50-18:05		SatB11.31	
<i>Dynamics, Stability and Control Characteristics of Unmanned Compound Autogyro</i>			
15:50-18:05		SatB11.23	
<i>A Partition Method for UAV's Envelope based on Fuzzy Clustering</i>			
Saifeng Zhao	Nanjing Univ. of Aeronautics & Astronautics	Qing Lin	Beihang Univ.
Xiujuan Li	Nanjing Univ. of Aeronautics & Astronautics	Zhihao Cai	Beihang Univ.
Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics	Yingxun Wang	Beihang Univ.
15:50-18:05		SatB11.32	
<i>Fixture Error Analysis and an Improved Calibration Method for Dynamically Tuned Gyroscopes</i>			
15:50-18:05		SatB11.24	
<i>Longitudinal Control Law Design for Flying Wing Aircraft in Wind Tunnel Virtual Flight Test</i>			
Linliang Guo	China Aerodynamics Research and Development Center	Yuyu Zhao	Harbin Institute of Technology
Jian Guan	China Aerodynamics Research and Development Center	Hui Zhao	Harbin Institute of Technology
15:50-18:05		SatB11.33	
<i>Noises Analysis and Filtering of Low-Cost AHRs Data</i>			
15:50-18:05		SatB11.33	
Zhenxing You	Beihang Univ.	Xin Huo	Harbin Institute of Technology
Zhihao Cai	Beihang Univ.	15:50-18:05	
Yingxun Wang	Beihang Univ.	SatB11.33	
Tingting Wang	Beihang Univ.		

Yu Zhang	Beihang Univ.	15:50-18:05	SatB11.42
		<i>Effects of Mechanical Properties of Electric Loading System on Surplus Torque</i>	
15:50-18:05	SatB11.34	Hanxiao Chen	Beihang Univ.
<i>Design of a Four-channel Automatic Test System for Servos</i>		Dongkai Shen	Beihang Univ.
Maidan Luo	Beihang Univ.	Xiao Yang	Beihang Univ.
Zhaoqin Peng	Beihang Univ.	15:50-18:05	SatB11.43
Jiayue Li	Beihang Univ.	<i>Fragments-based Object Tracking Using Probabilistic Graphical Model</i>	
15:50-18:05	SatB11.35	Dake Zhou	Nanjing Univ. of Aeronautics & Astronautics
<i>A Measurement and Compensation Method of GLONASS Inter-frequency Biases</i>		Yong Xu	Nanjing Univ. of Aeronautics & Astronautics
Lei Liu	AVIC Xi'an Flight Automatic Control Research Institute	Jingwei Huang	Nanjing Univ. of Aeronautics & Astronautics
Guangen Gao	AVIC Xi'an Flight Automatic Control Research Institute	Xin Yang	Nanjing Univ. of Aeronautics & Astronautics
Bowei Wang	AVIC Xi'an Flight Automatic Control Research Institute	15:50-18:05	SatB11.44
Xiaoxiao Guo	AVIC Xi'an Flight Automatic Control Research Institute	<i>The Establishment of the UAV' Ground Taxiing Model</i>	
15:50-18:05	SatB11.36	Yuanyuan Zhang	Nanjing Univ. of Aeronautics & Astronautics
<i>Research on a Bionic Polarized-Light/Geomagnetism Aided Integrated Navigation System</i>		Xiujuan Li	Nanjing Univ. of Aeronautics & Astronautics
Gang Wang	Beihang Univ.	Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics
Jian Yang	Beihang Univ.	15:50-18:05	SatB11.45
Tao Du	Southeast Univ.	<i>A Modified Unbiased GM (1,1) Prediction Model based EEMD</i>	
Beng Niu	Beihang Univ.	Haixu Jiang	Northwestern Polytechnical Univ.
Lei Guo	Beihang Univ.	Ke Zhang	Northwestern Polytechnical Univ.
15:50-18:05	SatB11.37	Jingyu Wang	Northwestern Polytechnical Univ.
<i>An Error Estimating Robust Controller of Cruising Aircraft based on Dynamic Surface</i>		Tianshe Yang	China Xi'an Satellite Control Center
Feixiong Yu	Xi'an Research Institute of Hi-Tech	15:50-18:05	SatB11.46
Yongchao Wang	Xi'an Research Institute of Hi-Tech	<i>Trajectory Optimization and Online Re-planning for Vertical Takeoff Vertical Landing on Lunar Surface</i>	
Lijia Cao	Xi'an Research Institute of Hi-Tech	Huiping Chu	Zhejiang Univ.
Shengxiu Zhang	Xi'an Research Institute of Hi-Tech	Lin Ma	Zhejiang Univ.
Xiaoxiang Hu	Xi'an Research Institute of Hi-Tech	Zhijiang Shao	Zhejiang Univ.
15:50-18:05	SatB11.38	15:50-18:05	SatB11.47
<i>Reentry Guidance for Hypersonic Vehicles Considering No-fly Zone Constraints</i>		<i>Online Trajectory Design for Terminal Area Energy Management of Reusable Launch Vehicle</i>	
Yiyong Chen	Huazhong Univ.	Tao Yang	Huazhong Univ. of Science and Technology
Yongji Wang	Huazhong Univ.	Jingyu Qiu	Beijing Aerospace Automatic Control Institute
Lei Liu	Huazhong Univ.	Lei Liu	Huazhong Univ. of Science and Technology
15:50-18:05	SatB11.39	Yongji Wang	Huazhong Univ. of Science and Technology
<i>Sliding Mode Fault Tolerant Control for Over-actuated Aircraft</i>		15:50-18:05	SatB11.48
Fawei Wang	The First Aeronautical College of Air Force	<i>Mode-free Altitude Control for Airship based on Q-Learning and CMAC Network</i>	
15:50-18:05	SatB11.40	Chunyu Nie	Beihang Univ.
<i>Control Method of Manned/Unmanned Aerial Vehicle Cooperative Formation based on Mission Effectiveness</i>		Ming Zhu	Beihang Univ.
Zhuoning Dong	Beihang Univ.	Zewei Zheng	Beihang Univ.
Mengyue Zhang	Beihang Univ.	Zhe Wu	Beihang Univ.
Yemo Liu	Beihang Univ.	15:50-18:05	SatB11.49
15:50-18:05	SatB11.41	<i>Fractional Model Reference Adaptive Control for Electro-Hydraulic</i>	
<i>Practice of Information Fusion for P0 from Multiple Sensors</i>			
Binbin Shi	AVIC Aviation Motor Control System Institute		
Xiong Zhou	AVIC Aviation Motor Control System Institute		
Tengfei Shao	AVIC Aviation Motor Control System Institute		

<i>Servo System</i>			
Yifei Zhao		Beihang Univ.	
Zongxia Jiao		Beihang Univ.	
15:50-18:05		SatB11.50	
<i>Adding a Power Integrator Technique based Terminal Guidance Law</i>			
Songyan Wang		Harbin Institute of Technology	
Xiangyu Sun		Harbin Institute of Technology	
Tao Chao		Harbin Institute of Technology	
Ping Ma		Harbin Institute of Technology	
15:50-18:05		SatB11.51	
<i>Research on Relative Navigation Algorithm for UAV Autonomous Aerial Refueling Rendezvous Phase</i>			
Yunfeng Zhu		Nanjing Univ. of Aeronautics & Astronautics	
Yongrong Sun		Nanjing Univ. of Aeronautics & Astronautics	
Bin Huang		Nanjing Univ. of Aeronautics & Astronautics	
Rongbing Li		Nanjing Univ. of Aeronautics & Astronautics	
Ling Wu		Nanjing Univ. of Aeronautics & Astronautics	
15:50-18:05		SatB11.52	
<i>Shockwave Feature Extraction Algorithm based on Genetic Algorithm and Matching Pursuit Algorithm</i>			
Xuemei Wang		Xi'an High Tech Research Institute	
Jianjun Peng		Xi'an High Tech Research Institute	
Zhe Xu		Xi'an High Tech Research Institute	
Zilong Tan		Xi'an High Tech Research Institute	
15:50-18:05		SatB11.53	
<i>Implement of Cooperative Navigation in Pedestrian Navigation based on Distance Restraint</i>			
Ze Chen		National Univ. of Defense Technology	
Hua Mu		National Univ. of Defense Technology	
Changhao Chen		National Univ. of Defense Technology	
Meiping Wu		National Univ. of Defense Technology	
15:50-18:05		SatB11.54	
<i>Research on the Energy-Regulation Electro-Hydrostatic Actuator</i>			
Yaoming Shang		Beihang Univ.	
Shuhan Ke		Beihang Univ.	
Zongxia Jiao		Beihang Univ.	
15:50-18:05		SatB11.55	
<i>Sliding Mode Robust Adaptive Fault-tolerant Control Design for Uncertain Time-delay Systems</i>			
Yan Dong		Nanjing Univ. of Aeronautics & Astronautics	
Pu Yang		Nanjing Univ. of Aeronautics & Astronautics	
Weize Ma		Shanghai Aircraft Manufacturing Co. Ltd.	
Ben Ma		Nanjing Univ. of Aeronautics & Astronautics	
15:50-18:05		SatB11.56	
<i>Finite-Time Convergent Sliding-Mode Guidance Law based on Extended-State-Observer</i>			
Denghui Zhang		Harbin Institute of Technology	
Tao Chao		Harbin Institute of Technology	
Songyan Wang		Harbin Institute of Technology	
Ming Yang		Harbin Institute of Technology	
15:50-18:05		SatB11.57	
<i>The Effect of Plasma in Controlling the Flow Separation of the Flying-wing of BWB Models</i>			
Chao Zhao		Xi'an Flight Automatic Control Research Institute	
Chuanbo Pang		Xi'an Modern Control Technology Research Institute	
Jia Xu		Beijing Institute of Aerospace Systems Engineering	
Lin Hou		Xi'an Flight Automatic Control Research Institute	
Te liu		Xi'an Flight Automatic Control Research Institute	
Liangwen Tang		Xi'an Flight Automatic Control Research Institute	
15:50-18:05		SatB11.58	
<i>Research on Tactical-Flight-Management-Oriented Multi-Level Index System and Situation Assessment Method</i>			
Lin Hou		AVIC Xi'an Flight Automatic Control Research Institute	
Hanqiao Zhang		AVIC Xi'an Flight Automatic Control Research Institute	
Liangwen Tang		AVIC Xi'an Flight Automatic Control Research Institute	
Chao Zhao		AVIC Xi'an Flight Automatic Control Research Institute	
Te Liu		AVIC Xi'an Flight Automatic Control Research Institute	
Xiafu Wang		High-Tech Institute of Xi'an	
15:50-18:05		SatB11.59	
<i>Analysis of the Key Technologies of Flight Control for Sensor/Craft</i>			
Cunkan Lu		Xi'an Flight Automatic Control Research Institute	
Baojun Yuan		Xi'an Flight Automatic Control Research Institute	
15:50-18:05		SatB11.60	
<i>The Classification of Human Lower Limb Motion based on Acceleration Sensor</i>			
Min Li		Beihang Univ.	
Long Zhao		Beihang Univ.	
Technical Program for Sunday, August 14, 2016			
SunA1		ROOM 206, Main Bld	
System Identification (Regular Session)			
Chairs: Jizhou Lai		Nanjing Univ. of Aeronautics & Astronautics	
Zhe Liu		China Academy of Aerospace Astronautics	
13:30-13:45		SunA1.1	

<i>The Estimation Algorithm for Component Health Parameter of Turbofan Engine</i>		Hong Li	Nanjing Univ. of Aeronautics & Astronautics
Pan Wang	Tsinghua Univ.	Hao Yang	Nanjing Univ. of Aeronautics & Astronautics
Nong Cheng	Tsinghua Univ.	Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics
Qing Li	Tsinghua Univ.		
13:45-14:00	SunA1.2		
<i>Uncertain Parameters Variable Structure Neural Network Identifier in Spherical Actuator Control System</i>			
Liang Yan	Beihang Univ.		
Yinghuang Liu	Beihang Univ.		
Zongxia Jiao	Beihang Univ.		
14:00-14:15	SunA1.3		
<i>Online Parameter Identification Study on a Small Fixed-Wing UAV</i>			
Zhe Liu	China Academy of Aerospace Astronautics		
Yuerong Zhou	China Academy of Aerospace Astronautics		
Guidong Wang	China Academy of Aerospace Astronautics		
14:15-14:30	SunA1.4		
<i>State Estimation for Nonlinear Dynamic Systems Using Gaussian Processes and Pre-computed Local Linear Models</i>			
Xiaoke Yang	Beihang Univ.		
Bo Peng	Beihang Univ.		
Hang Zhou	Beihang Univ.		
Lingyu Yang	Beihang Univ.		
14:30-14:45	SunA1.5		
<i>Kalman Tracking Algorithm for Medicine Bottle Capturing in Real-Time Vision</i>			
Ligang Ge	National Univ. of Defense Technology		
Honglei An	National Univ. of Defense Technology		
Feng Chen	Truking Technology Limited		
Xinhua Li	Truking Technology Limited		
Hongxu Ma	National Univ. of Defense Technology		
14:45-15:00	SunA1.6		
<i>Fault Diagnosis of Actuator of Flight Control System based on Analytic Model</i>			
Dong Cao	Nanjing Univ. of Aeronautics & Astronautics		
Jiangling Fu	Nanjing Univ. of Aeronautics & Astronautics		
Yong Li	Nanjing Univ. of Aeronautics & Astronautics		
15:00-15:15	SunA1.7		
<i>Remaining Useful Life Prediction for the Momentum Wheel Considering Work Condition Switching</i>			
Liang Jiang	Nanjing Univ. of Aeronautics & Astronautics		
Yuehua Cheng	Nanjing Univ. of Aeronautics & Astronautics		
Tianshe Yang	Xi'an Satellite Control Center		
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics		
15:15-15:30	SunA1.8		
<i>Performance Degradation Analysis of Switched Systems with Application to HiMAT Vehicle</i>			
		SunA2 ROOM 205, Main Bid Estimation & Tracking I (Regular Session)	
		Chairs: Zhihao Cai	Beihang Univ.
		Furong Zeng	Xiamen Univ.
13:30-13:45	SunA2.1		
<i>Visual Attention based Target Detection and Tracking for UAVs</i>			
Tingting Wang	Beihang Univ.		
Yu Zhang	Beihang Univ.		
Zhihao Cai	Beihang Univ.		
Yingxun Wang	Beihang Univ.		
Zhenxing You	Beihang Univ.		
13:45-14:00	SunA2.2		
<i>Design and Experiment of a Compact Tracking Mirror for Dual-band Infrared Remote Sensing</i>			
Zheng Fang	Xiamen Univ.		
Furong Zeng	Xiamen Univ.		
Jianfeng Jiang	Xiamen Univ.		
Qinan Ouyang	Xiamen Univ.		
Bo Hu	Xiamen Univ.		
14:00-14:15	SunA2.3		
<i>Cooperative Tracking for Hypersonic Technology Vehicles based on EIF-IMM</i>			
Q. K. Tan	Beihang Univ.		
K. Yi	Beihang Univ.		
W. Wang	Civil Aviation Management Institute of China		
Q. D. Li	Beihang Univ.		
X. W. Dong	Beihang Univ.		
Z. Ren	Beihang Univ.		
14:15-14:30	SunA2.4		
<i>Life Prediction Methods based on Data-driven: Review and Trend</i>			
Lisha Zhu	Nanjing Univ. of Aeronautics & Astronautics		
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics		
Yuehua Cheng	Nanjing Univ. of Aeronautics & Astronautics		
14:30-14:45	SunA2.5		
<i>Multi-sensor Multi-target Joint Tracking and Classification</i>			
Tianqu Zhao	Beihang Univ.		
Hong Jiang	Beihang Univ.		
Kun Zhan	Beihang Univ.		
Yaozhong Yu	Beihang Univ.		
14:45-15:00	SunA2.6		
<i>Information Fusion and Reconstruction of Key Sensors in a Flight Control System in Constant Wind Field based on Two Stage EKF</i>			
Qizhi He	Northwestern Polytechnical Univ.		
Weiguo Zhang	Northwestern Polytechnical Univ.		
Xiaoxiong Liu	Northwestern Polytechnical Univ.		

Jinglong Liu	Northwestern Polytechnical Univ.
15:00-15:15	SunA2.7
<i>Combining Numerous Gyroscopes for Accuracy Improvement Using Autoregressive Process for Rate Signal Modeling</i>	
Qiang Shen	Xi'an Research Institute of High-tech
Jieyu Liu	Xi'an Research Institute of High-tech
Weiwei Qin	Xi'an Research Institute of High-tech
Huang Huang	Naval Aeronautical and Astronautical Univ.
15:15-15:30	SunA2.8
<i>An Improved MCS/INS Integrated Navigation Algorithm for Multi-Rotor UAV in Indoor Flight</i>	
Liang Zhang	Nanjing Univ. of Aeronautics & Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics & Astronautics
Peng Shi	Nanjing Univ. of Aeronautics & Astronautics
Sheng Bao	Nanjing Univ. of Aeronautics & Astronautics
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
SunA3 ROOM 204, Main Bid	
Navigation Technology III (Regular Session)	
Chairs: Liang Yan	Beihang Univ.
Hao Zhu	Beijing Institution of Technology
13:30-13:45	SunA3.1
<i>A Pose Estimation Method of a Moving Target based on Off-board Monocular Vision</i>	
Jianing Fu	Beihang Univ.
Qiang Fu	Beihang Univ.
Usman Arif	Beihang Univ.
Quan Quan	Beihang Univ.
13:45-14:00	SunA3.2
<i>Passive Geo-location for Ground Target with Multiple Measurements Using Fixed Wing UAV</i>	
Sheng Xu	National Univ. of Defense Technology
Yafei Lu	National Univ. of Defense Technology
Zhongxi Hou	National Univ. of Defense Technology
Shangqiu Shan	National Univ. of Defense Technology
Zheng Guo	National Univ. of Defense Technology
14:00-14:15	SunA3.3
<i>The Use of Optical Flow for UAV Motion Estimation in Indoor Environment</i>	
Yu Zhang	Beihang Univ.
Tingting Wang	Beihang Univ.
Zhihao Cai	Beihang Univ.
Yingxun Wang	Beihang Univ.
Zhenxing You	Beihang Univ.
14:15-14:30	SunA3.4
<i>A Navigation Map Building Algorithm using Refined RBPF-SLAM</i>	

Mengyin Fu	Beijing Institution of Technology
Hao Zhu	Beijing Institution of Technology
Yi Yang	Beijing Institution of Technology
Meiling Wang	Beijing Institution of Technology
Zhihong Deng	Beijing Institution of Technology
14:30-14:45	SunA3.5
<i>Circular Drogue Pose Estimation for Vision-based Navigation in Autonomous Aerial Refueling</i>	
Bin Huang	Nanjing Univ. of Aeronautics & Astronautics
Yongrong Sun	Nanjing Univ. of Aeronautics & Astronautics
Xudong Sun	Shenyang Aircraft Design and Research Institute
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
14:45-15:00	SunA3.6
<i>Cooperative Navigation for Multiple Autonomous Underwater Vehicles with Time delayed Measurements</i>	
Yuantao Qi	Beijing Institute of Technology
Bo Wang	Beijing Institute of Technology
Shunting Wang	Beijing Institute of Technology
Mengyin Fu	Nanjing Univ. of Science and Technology
15:00-15:15	SunA3.7
<i>Error Estimation of INS/GPS Integrated System based on PM Extended Kalman Filter</i>	
Xuan Zhao	Beihang Univ.
Maiying Zhong	Shandong Univ. of Science and Technology
Dingfei Guo	Beihang Univ.
Jia Guo	Beihang Univ.
15:15-15:30	SunA3.8
<i>Shearer Positioning for Mining Fleet Cooperative Movement in GPS-denied Environments</i>	
Chengming Luo	Hohai Univ.
Gaifang Xin	Changzhou College of Information Technology
Hai Yang	China Univ. of Mining and Technology
Wei Li	China Univ. of Mining and Technology
SunA4 ROOM 203, Main Bid	
Filtering & Estimation (Regular Session)	
Chairs: Yang Li	Beihang Univ.
Lei Dou	Nanjing Univ. of Science and Technology
13:30-13:45	SunA4.1
<i>A Novel Filtering Model for DVL Aided Inertial Navigation System based on Observability Degree Analysis</i>	
Huapeng Yu	Navy Submarine Academy
Yanli Geng	Hospital of Traditional Chinese Medicine of Guoyang
Hai Zhu	Navy Submarine Academy
Nuan Jiang	Navy Submarine Academy
Jianhua Chen	Navy Submarine Academy
13:45-14:00	SunA4.2
<i>Performance of the Vector Tracking Loop Assisted by Desired</i>	

<i>Trajectory during Short Signal Outages</i>	
Bing Xu	Nanjing Univ. of Science and Technology
Lei Dou	Nanjing Univ. of Science and Technology
14:00-14:15	SunA4.3
<i>A Dynamic Error Excitation and Calibration Method for High Precision IMU</i>	
Li Xing	Nanjing Univ. of Aeronautics & Astronautics
Qingqing Bai	Shanghai Aircraft Customer Service Co., Ltd
Zhi Xiong	Nanjing Univ. of Aeronautics & Astronautics
Wei Luo	Nanjing Univ. of Aeronautics & Astronautics
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
14:15-14:30	SunA4.4
<i>Particle Filter based on Improved Genetic Algorithm Resampling</i>	
W. Wang	Civil Aviation Management Institute of China
Q. K. Tan	Beihang Univ.
J. Chen	China Agricultural Univ.
Z. Ren	Beihang Univ.
14:30-14:45	SunA4.5
<i>Application of Line Type Particle Filter in Real-time Extracting of Laser Ranging Information</i>	
Haoyang Yu	National Univ. of Defense Technology
Wei An	National Univ. of Defense Technology
Jungang Yang	National Univ. of Defense Technology
Lihua Wu	National Univ. of Defense Technology
Xueying Wang	National Univ. of Defense Technology
14:45-15:00	SunA4.6
<i>An Improved Unscented Kalman Filter and the Application to Heading Control of Micro Unmanned Surface Vehicles</i>	
Yuewen Fu	Harbin Engineering Univ.
Yulei Liao	Harbin Engineering Univ.
Bo Wang	Harbin Engineering Univ.
Ye Li	Harbin Engineering Univ.
Hailong Shen	Harbin Engineering Univ.
Xiao Liang	Dalian Maritime Univ.
15:00-15:15	SunA4.7
<i>UKF based Filtering and Curve Fitting for Estimating the Joint Stiffness of Stewart Platform</i>	
Xin Li	Beihang Univ.
Shuling Dai	Beihang Univ.
Rui Zeng	Beihang Univ.
15:15-15:30	SunA4.8
<i>Adaptive Kalman Filter for Guided Rolling Projectile Attitude Estimation</i>	
Xin Lu	Naval Univ. of Engineering

Zhong Liu	Naval Univ. of Engineering
Hongxin Zhang	Naval Univ. of Engineering

SunA5		ROOM 208, Bid 1
Unmanned Systems (Invited Session)		
Chairs:	Yumin Zhang	Concordia Univ.
	Xiang Yu	Concordia Univ.
Orgnizer(s):	Yumin Zhang*	Concordia Univ.
	Haibin Duan	Beihang Univ.
	Xiang Yu	Concordia Univ.
13:30-13:45	SunA5.1	
<i>Study on Real-Time Safe Route Planning Method for Quad-Rotor UAV among Buildings</i>		
Bosong Wei	Northwestern Polytechnical Univ.	
Qirui Zhang	Air Force Engineering Univ.	
Zhuofan Xu	Air Force Engineering Univ.	
Liang Wang	Northwestern Polytechnical Univ.	
13:45-14:00	SunA5.2	
<i>Obstacle Avoidance Algorithm for UAVs in Unknown Environment based on Distributional Perception and Decision Making</i>		
Zhuofan Xu	Air Force Engineering Univ.	
Ruixuan Wei	Air Force Engineering Univ.	
Qirui Zhang	Air Force Engineering Univ.	
Kai Zhou	Air Force Engineering Univ.	
Renke He	Air Force Engineering Univ.	
14:00-14:15	SunA5.3	
<i>Small UAVs with Autonomous Avoidance Using Humanlike Thoughts</i>		
Qirui Zhang	Air Force Engineering Univ.	
Ruixuan Wei	Air Force Engineering Univ.	
Renke He	Air Force Engineering Univ.	
Zhuofan Xu	Air Force Engineering Univ.	
Xiaolin Zhao	Air Force Engineering Univ.	
14:15-14:30	SunA5.4	
<i>A Nonlinear Impact-Time-Control Guidance Law for Salvo Attack</i>		
Qihui Yang	National Univ. of Defense Technology	
Shaoke Qian	National Univ. of Defense Technology	
Lina Geng	National Univ. of Defense Technology	
Zhiqiang Zheng	National Univ. of Defense Technology	
14:30-14:45	SunA5.5	
<i>Pigeon-Inspired Optimization Approach to Information Granulation-based Fuzzy RBF Neural Networks for Image Fusion</i>		
Zizhuo Wang	Beihang Univ.	
Fangyuan Sui	Beihang Univ.	
Jiaqi Jia	Beihang Univ.	
Haibin Duan	Beihang Univ.	
14:45-15:00	SunA5.6	
<i>SDRE based Impact Angle Control Guidance Law Considering Seeker's Field-of-View Limit</i>		
Shaoke Qian	National Univ. of Defense Technology	

	Beijing Aeronautical Technology Research Center		<i>A Fast Solution to Unmanned Aerial Vehicles Rendezvous Problem Using Minimal Curve Method</i>
Qihui Yang	National Univ. of Defense Technology		Yin Wang Nanjing Univ. of Aeronautics & Astronautics
Lina Geng	National Univ. of Defense Technology		Daobo Wang Nanjing Univ. of Aeronautics & Astronautics
Zhiqiang Zheng	National Univ. of Defense Technology		Wanyue Jiang Nanjing Univ. of Aeronautics & Astronautics
15:00-15:15	SunA5.7		14:15-14:30 SunA6.4
<i>UAV Collision Avoidance Decision and 3D Path Re-planning Method based on Improved Interfered Fluid Dynamical System and Rolling Optimization</i>			
Chang Liu	Beihang Univ.		Lin Chen Nanjing Univ. of Aeronautics & Astronautics
Honglun Wang	Beihang Univ.		Bing Hua Nanjing Univ. of Aeronautics & Astronautics
Peng Yao	Beihang Univ.		Yunhua Wu Nanjing Univ. of Aeronautics & Astronautics
15:15-15:30	SunA5.8		14:30-14:45 SunA6.5
<i>Attitude Controller Design for Launch Vehicle based on Parameter Optimization</i>			
Yan Zhang	Beijing Institute of Astronautical Systems Engineering		<i>Optimal Control and Analysis for Aeroelastic Model of Hypersonic Vehicle</i>
Yong Wang	Beijing Institute of Astronautical Systems Engineering		Yu Zhu Nanjing Univ. of Aeronautics & Astronautics
Xinxin Liang	Beijing Institute of Astronautical Systems Engineering		Haidong Shen Nanjing Univ. of Aeronautics & Astronautics
Yang Chen	Beijing Institute of Astronautical Systems Engineering		Yanbin Liu Nanjing Univ. of Aeronautics & Astronautics
SunA6 ROOM 209, Bld 1			Guanqun Zhang Nanjing Univ. of Aeronautics & Astronautics
Intelligent Control of UAV (Invited Session)			Yuping Lu Nanjing Univ. of Aeronautics & Astronautics
Chairs: Mou Chen	Nanjing Univ. of Aeronautics & Astronautics		14:45-15:00 SunA6.6
Haibin Duan	Beihang Univ.		<i>A Pesticide Spraying Mission Assignment Performed by Multi-Quadcopters and Its Simulation Platform Establishment</i>
Orgnizer(s): Mou Chen*	Nanjing Univ. of Aeronautics & Astronautics		Yao Luo Beihang Univ.
Haibin Duan	Beihang Univ.		Jiang Yan Beihang Univ.
13:30-13:45	SunA6.1		Zhiyao Zhao Beihang Univ.
<i>A Vision System for Multi-Rotor Aircraft to Track Moving Object</i>			
Tianyi Zhang	Nanjing Univ. of Aeronautics & Astronautics		Shuaishuai Yang Beihang Univ.
Zhong Yang	Nanjing Univ. of Aeronautics & Astronautics		Quan Quan Beihang Univ.
Xiang Zhang	Nanjing Univ. of Aeronautics & Astronautics		15:00-15:15 SunA6.7
Yangyang Shen	Nanjing Univ. of Aeronautics & Astronautics		<i>Gust Load Alleviation of Civil Aircraft based on Model Prediction Control</i>
13:45-14:00	SunA6.2		Lei Xue Nanjing Univ. of Aeronautics & Astronautics
<i>An Improved Kalman Filter for Attitude Determination of Multi-rotor UAVs based on Low-cost MEMS Sensors</i>			
Xiang Zhang	Nanjing Univ. of Aeronautics & Astronautics		Zheyu Zhang Nanjing Univ. of Aeronautics & Astronautics
Zhong Yang	Nanjing Univ. of Aeronautics & Astronautics		Shaojie Zhang Nanjing Univ. of Aeronautics & Astronautics
Tianyi Zhang	Nanjing Univ. of Aeronautics & Astronautics		Tao Li Nanjing Univ. of Aeronautics & Astronautics
Yangyang Shen	Nanjing Univ. of Aeronautics & Astronautics		15:15-15:30 SunA6.8
14:00-14:15	SunA6.3		<i>Observer based Backstepping Control for a Three Degree of Freedom Model Helicopter</i>
			Qingliang Cui Nanjing Univ. of Aeronautics & Astronautics
			Lei Zhang Nanjing Univ. of Aeronautics & Astronautics
			Mou Chen Nanjing Univ. of Aeronautics & Astronautics

SunA7 ROOM 212, Bld 1	
Intelligent autonomous system I (Invited Session)	
Chairs:	
Zhengyu Song	Beijing Aerospace Automatic Control
Zhenqiang Qi	Beijing Aerospace Automatic Control
Kunfeng Lu	Beijing Aerospace Automatic Control
Orgnizer(s):	
Zhengyu Song	Beijing Aerospace Automatic Control
Zhenqiang Qi	Beijing Aerospace Automatic Control
Kunfeng Lu	Beijing Aerospace Automatic Control
13:30-13:45	SunA7.1
<i>Simultaneous Extraction of the Moon and Stars at Night</i>	
Huajun Du	Beijing Aerospace Automatic Control Institute
Huosheng Hu	Univ. of Essex, United Kingdom
Yunfeng Ai	Univ. of Chinese Academy of Sciences
13:45-14:00	SunA7.2
<i>On Application of Quantum Correlated Imaging Technology for Missile-born System</i>	
Xuehui Shao	Beijing Aerospace Automatic Control Institute
Quanyun Li	Beijing Aerospace Automatic Control Institute
Shibo Gao	Beijing Aerospace Automatic Control Institute
14:00-14:15	SunA7.3
<i>Computation of Stability Radius for a Third-order Control System</i>	
Shipeng Fan	Beijing Aerospace Automatic Control Institute
Qinghai Gong	Beijing Aerospace Automatic Control Institute
Kunfeng Lu	Beijing Aerospace Automatic Control Institute
You Sun	Beijing Aerospace Automatic Control Institute
Ling Li	Beijing Aerospace Automatic Control Institute
14:15-14:30	SunA7.4
<i>Matching Probability of Visible Image based on the Side Information of Buildings</i>	
Bochuan Zhang	National Lab. of Aerospace Intelligent Control Technology
Bo Tao	National Lab. of Aerospace Intelligent Control Technology
Lei Gao	National Lab. of Aerospace Intelligent Control Technology
Liping Xiao	National Lab. of Aerospace Intelligent Control Technology
Hongquan Yun	National Lab. of Aerospace Intelligent Control Technology
14:30-14:45	SunA7.5
<i>Thoughts on Autonomous Guidance for Deep Space Exploration — Experience of Attending 2016 IEEE Aerospace Conference</i>	
Zhijiang Shao	Zhejiang Univ.
Lin Ma	Zhejiang Univ.

14:45-15:00	SunA7.6
<i>Analyses and Reflection of Intelligent Autonomous Technology for Chinese Manned Deep Space Exploration</i>	
Kunfeng Lu	Beijing Aerospace Automatic Control Institute
Zhenqiang Qi	Beijing Aerospace Automatic Control Institute
Jiarun Liu	Beijing Aerospace Automatic Control Institute
Weimin Bao	China Aerospace Science and Technology Corporation
15:00-15:15	SunA7.7
<i>Research on Adaptation Criteria Generation based on Large Data Mining</i>	
Hongquan Yun	Beijing Aerospace Automatic Control Institute
Li Xu	Beijing Aerospace Automatic Control Institute
Hao Dou	Huazhong Univ. of Science and Technology
Delie Ming	Huazhong Univ. of Science and Technology
15:15-15:30	SunA7.8
<i>A Survey on Concurrent Network Localization for Autonomous Multi-vehicle Systems</i>	
Tingrui Han	Zhejiang Univ.
Zhiyun Lin	Zhejiang Univ.
Ronghao Zheng	Zhejiang Univ.
SunA8 ROOM 210, Bld 1	
UAV Autonomous Control I (Regular Session)	
Chairs: Yanbin Liu Nanjing Univ. of Aeronautics & Astronautics	
Minghuan Zhang	Northwestern Polytechnical Univ.
13:30-13:45	SunA8.1
<i>A Convex Optimization-based Approach for Time-Constrained Hypersonic Gliding</i>	
Xinfu Liu	Beihang Univ.
Tinggui Yan	National Univ. of Defense Technology
Xinhua He	Beijing Institute of Astronautical Systems Engineering
13:45-14:00	SunA8.2
<i>Analyses and Simulations of Propulsion Mechanisms for Flapping Wings with the Extension of Undulate Propulsion Theory</i>	
Xiaohui Sun	Beihang Univ.
Longfei Zhao	Beihang Univ.
Zongxia Jiao	Beihang Univ.
14:00-14:15	SunA8.3
<i>An Anti-interference Method for About Unmanned Aerial Vehicle Flight Data based on VxWorks</i>	
Bo Li	NWPU Computer Institute
	Xi'an ASN Technology Group Co. Ltd.
Shengbing Zhang	NWPU Computer Institute
Junpeng Yang	Xi'an ASN Technology Group Co. Ltd.
Liang Wang	NWPU UAV Laboratory

14:15-14:30	SunA8.4
<i>Trajectory Planning and Adaptive Control Architecture for Increasing Autonomy of UCAV in Strike Missions</i>	
Changqing Wang	Northwestern Polytechnical Univ.
Hongshi Lu	Northwestern Polytechnical Univ.
Shu Yang	Northwestern Polytechnical Univ.
Aijun Li	Northwestern Polytechnical Univ.
Rooh ul Amin	Northwestern Polytechnical Univ.

14:30-14:45	SunA8.5
<i>A Static Projective Control Method of a Flying-wing UAV based on the Robust and Optimal Theories</i>	
Yi Zhu	Nanjing Univ. of Aeronautics & Astronautics
Xin Chen	Nanjing Univ. of Aeronautics & Astronautics
Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics

14:45-15:00	SunA8.6
<i>Design and Realization of Control Strategy for UAV Autonomous Flight based on Video Guidance Technology</i>	
Bo Li	NWPU Computer Institute Xi'an ASN Technology Group Co. Ltd.
Shengbing Zhang	Northwestern Polytechnical Univ.
Liang Wang	Northwestern Polytechnical Univ.

15:00-15:15	SunA8.7
<i>PSO & PID Controller Design of UAV Formation Flight</i>	
Minghuan Zhang	Northwestern Polytechnical Univ.

15:15-15:30	SunA8.8
<i>Vision/GPS-based Docking Control for the UAV Autonomous Aerial Refueling</i>	
Hu Zhu	Nanjing Univ. of Aeronautics & Astronautics
Suozhong Yuan	Nanjing Univ. of Aeronautics & Astronautics
Qian Shen	Nanjing Univ. of Aeronautics & Astronautics

SunA9 ROOM 310, Main Bld
UAV Autonomous Control II (Regular Session)

Chairs: Jiang Wu	Beihang Univ.
Shuaiyong Zheng	Beihang Univ.

13:30-13:45	SunA9.1
<i>Research on Cooperative Sense and Avoid Approaches based on ADS-B for Unmanned Aerial Vehicle</i>	
Chunhui Zhao	Northwestern Polytechnical Univ.
Jiade Gu	Northwestern Polytechnical Univ.
Jinwen Hu	Northwestern Polytechnical Univ.
Yang Lyu	Northwestern Polytechnical Univ.
Dong Wang	Northwestern Polytechnical Univ.

13:45-14:00	SunA9.2
<i>An Initial Research on Ultra-wideband and Inertial Measurement Unit Pose Estimation for Unmanned Aerial Vehicle</i>	
Shuaiyong Zheng	Beihang Univ.
Qiang Fu	Beihang Univ.
Hanna Tereshchenko	Beihang Univ.
Tiqiang Wang	Beihang Univ.
Quan Quan	Beihang Univ.

14:00-14:15	SunA9.3
<i>Multi-Objective Monte-Carlo Tree Search based Aerial Maneuvering Control</i>	
Xiang Chen	Xi'an Flight Automatic Control Research Institute
Xinguo Zhang	Aviation Industry Corporation of China, Beijing
Weijia Wang	Xi'an Flight Automatic Control Research Institute
Wenling Wei	Xi'an Flight Automatic Control Research Institute

14:15-14:30	SunA9.4
<i>Fuel-Optimal Trajectory Optimization for Lunar Soft Landing via Enhanced Simultaneous Dynamic Optimization Approach</i>	
Lin Ma	Zhejiang Univ.
Zhengyu Song	National Key Laboratory of Science and Technology on Aerospace Intelligent Control
Zhijiang Shao	Zhejiang Univ.

14:30-14:45	SunA9.5
<i>Reconnaissance and Strike Integrated UAV's Path Planning in Autonomous Attack</i>	
Hongbao Mao	Air Force Engineering Univ.
Hui Feng	Air Force Engineering Univ.
Faqi Zhang	Air Force Engineering Univ.
Xiaolin Zhao	Air Force Engineering Univ.

14:45-15:00	SunA9.6
<i>Three-dimensional Route Planning Considering Threat Blind Area</i>	
Jian Guo	Beihang Univ.
Xiaoyong Lei	Beihang Univ.

15:00-15:15	SunA9.7
<i>4-Dimensional Trajectory Online Rolling Optimization Design for Unmanned Combat Aerial Vehicle with Multi-constraints</i>	
Kangsheng Dong	Air Force Engineering Univ.
Changqiang Huang	Air Force Engineering Univ.
Shangqin Tang	Air Force Engineering Univ.
Zhuoran Zhang	Air Force Engineering Univ.

15:15-15:30	SunA9.8
<i>Self-tuning of PID Controllers Design by Adaptive Interaction for Quadrotor UAV</i>	
Shuai An	Nanjing Univ. of Aeronautics & Astronautics
Suozhong Yuan	Nanjing Univ. of Aeronautics & Astronautics
Huadong Li	Nanjing Univ. of Aeronautics & Astronautics

SunA10 ROOM 308, Main Bld
Modeling & Simulation III (Regular Session)

Chairs: Huajun Gong	Nanjing Univ. of Aeronautics & Astronautics
Chuaning Xie	Yantai Univ.

13:30-13:45	SunA10.1
<i>The Optimization of Aircraft Bay Door Control Method</i>	
Kejian Huang	Beihang Univ.
Zongxia Jiao	Beihang Univ.

Ruonan Tian	Beihang Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Xiaochao Liu	Beihang Univ.	
Guanghai Jing	Beijing Research Institute of Precise Mechatronics and Controls	
13:45-14:00	SunA10.2	
<i>AstroSim: A Software Framework for Aerospace System Analysis and Simulation</i>		
Wanmeng Zhou	National Univ. of Defense Technology	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Hua Wang	National Univ. of Defense Technology	
Haiyang Li	National Univ. of Defense Technology	
Guojin Tang	National Univ. of Defense Technology	
14:00-14:15	SunA10.3	
<i>Research on Functional and Real-Time Fault-Localization Method for Flight Control Software</i>		
Beibei Yin	Beihang Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Yang Yang	Beihang Univ.	
Ping Zhang	China Airborne Missile Academy	
Jibing Wang	China Airborne Missile Academy	
Jinpeng Zhang	China Airborne Missile Academy	
14:15-14:30	SunA10.4	
<i>Design for Testability Analysis and Test Plan Optimization for Launch Vehicle</i>		
Hu Zhou	Beijing Aerospace Automatic Control Institute	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Haimeng Li	Beijing Aerospace Automatic Control Institute	
Guangping Qi	Beijing Aerospace Automatic Control Institute	
Wenting Li	Beijing Aerospace Automatic Control Institute	
Zongyou Xiang	Beijing Aerospace Automatic Control Institute	
Bo Lu	Beijing Aerospace Automatic Control Institute	
14:30-14:45	SunA10.5	
<i>A Novel Method for Variability Analysis of Model Output</i>		
Bo Ren	Air Force Engineering Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Lijie Cui	Air Force Engineering Univ.	
Ze Li	Air Force Engineering Univ.	
14:45-15:00	SunA10.6	
<i>Performance Degradation Analysis and Reliability Statistical Inference of PCB</i>		
Chuanning Xie	Yantai Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Shaowu Lu	Wuhan Univ. of Science and Technology	
15:00-15:15	SunA10.7	
<i>Research on the Optimization Layout of Spacecraft Navigation Receiving Antenna</i>		
Wei Zhang	China Academy of Space Technology	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Xiao G. Chen	China Academy of Space Technology	
15:15-15:30	SunA10.8	
<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>		
Kaidi Wu	Nanjing Univ. of Aeronautics & Astronautics	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics	
Peng Chen	Nanjing Univ. of Aeronautics & Astronautics	
Ying Fan	Nanjing Univ. of Aeronautics & Astronautics	
SunA11 ROOM 307, Main Bld		
Interactive Session III		
Chairs: Lin Tie	Beihang Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Wei Wang	Beihang Univ.	
13:30-15:30	SunA11.1	
<i>A Virtual-Waypoint based Artificial Potential Field Method for UAV Path Planning</i>		
Yuecheng Liu	Beihang Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Yongjia Zhao	Beihang Univ.	
13:30-15:30	SunA11.2	
<i>Mission Planning for Multiple UAVs based on Ant Colony Optimization and Improved Dubins Path</i>		
Teng Li	Nanjing Univ. of Aeronautics & Astronautics	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Ju Jiang	Nanjing Univ. of Aeronautics & Astronautics	
Ziyang Zhen	Nanjing Univ. of Aeronautics & Astronautics	
Chen Gao	Nanjing Univ. of Aeronautics & Astronautics	
13:30-15:30	SunA11.3	
<i>Fault Diagnosis based on Dynamic SVM</i>		
Hongpeng Meng	Nanjing Univ. of Aeronautics & Astronautics	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Haiyan Xu	Nanjing Univ. of Aeronautics & Astronautics	
Qingyan Tan	Nanjing Univ. of Aeronautics & Astronautics	
13:30-15:30	SunA11.4	
<i>On Collaborative Path Planning for Multiple UAVs based on Pythagorean Hodograph Curve</i>		
Xiuxia Yang	Naval Aeronautical and Astronautical Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Weiwei Zhou	Naval Aeronautical and Astronautical Univ.	
Yi Zhang	Naval Aeronautical and Astronautical Univ.	
13:30-15:30	SunA11.5	
<i>The Application of Ultrasonic Sensor in the Obstacle Avoidance of Quad-rotor UAV</i>		
Guanglei Meng	Shenyang Aerospace Univ.	<i>Design of Real-Time and Multi-Task UAV Simulation System based on Rapid Prototyping</i>
Haibing Pan	Shenyang Aerospace Univ.	
13:30-15:30	SunA11.6	
<i>Fault Tolerant Prescribed Performance Control for Nonlinear Systems with Unmodeled Dynamics</i>		
Jicheng Gao	Yangzhou Univ.	

Qikun Shen	Yangzhou Univ.	<i>A Moving Target Detection Algorithm based on Combination of GMM and LBP Texture Pattern</i>	Jiyun Zhai	Nanjing Univ. of Aeronautics & Astronautics
Pengfei Yang	Yangzhou Univ.		Xin Zhou	Nanjing Univ. of Aeronautics & Astronautics
13:30-15:30	SunA11.7		Congqing Wang	Nanjing Univ. of Aeronautics & Astronautics
<i>An Autonomous Navigation Scheme for UAV in Approach Phase</i>				
Zhuoning Dong	Beihang Univ.		13:30-15:30	SunA11.17
Wenbin Li	Beihang Univ.	<i>Laguerre Graph Self-optimize Path Planning Algorithm for UAVs in Irregular Obstacle Environment</i>	Zhuofan Xu	Air Force Engineering Univ.
Yanxing Zhou	Beihang Univ.		Ruixuan Wei	Air Force Engineering Univ.
13:30-15:30	SunA11.8		Kai Zhou	Air Force Engineering Univ.
<i>Adaptive Backstepping Sliding Mode Controller Design For Spinning Projectile</i>				
Xue Bao	Northeastern Univ.		Qirui Zhang	Air Force Engineering Univ.
Dazhi Wang	Northeastern Univ.		Renke He	Air Force Engineering Univ.
Yongsheng Yang	Shenyang Jianzhu Univ.		13:30-15:30	SunA11.18
13:30-15:30	SunA11.9	<i>The Research Status and Development Trend of Precision Guidance Technology of Anti-aircraft Missile</i>	Shizhou Ding	Shanghai Institute of Mechanical and Electrical Engineering
<i>Applications of L1 Adaptive Control in Aircraft Attitude and Velocity Control</i>				
Ningjun Liu	Beihang Univ.		Yuheng Shen	Shanghai Institute of Mechanical and Electrical Engineering
Zhihao Cai	Beihang Univ.		Kangjun Feng	Shanghai Institute of Mechanical and Electrical Engineering
Yingxun Wang	Beihang Univ.		Danqi Chen	Shanghai Institute of Mechanical and Electrical Engineering
13:30-15:30	SunA11.10		13:30-15:30	SunA11.19
<i>Integrated Modular Avionics Safety Analysis Approach based on Components</i>				
Yue Shen	Commercial Aircraft Corporation of China Ltd.		<i>Design and Analysis for Virtual Prototype of 2-DOF Five-Bar Mechanism</i>	
Yong Cai	Fudan Univ.		Zhen Wu	Nanjing Univ. of Aeronautics & Astronautics
Xushuang Chen	Commercial Aircraft Corporation of China Ltd.		Yali Xue	Nanjing Univ. of Aeronautics & Astronautics
13:30-15:30	SunA11.11		Jiahui Wang	Nanjing Univ. of Aeronautics & Astronautics
<i>System Composition and Longitudinal Motion Control Simulation of Vehicular Towed Autogyro</i>				
Yan Ma	Beihang Univ.		13:30-15:30	SunA11.20
Zhihao Cai	Beihang Univ.		<i>Landing System for AR.Drone 2.0 Using Onboard Camera and ROS</i>	
Ningjun Liu	Beihang Univ.		Tianqu Zhao	Beihang Univ.
Yingxun Wang	Beihang Univ.		Hong Jiang	Beihang Univ.
13:30-15:30	SunA11.12		13:30-15:30	SunA11.21
<i>Selecting Test Cases by Cluster Analysis of GUI States</i>				
Yang Gao	Beihang Univ.		<i>Verification of Polar Navigation Elements based on Fictions Pole of Earth</i>	
Chenggang Bai	Beihang Univ.		Qi Zhou	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	SunA11.13		Mengmeng Zhao	Xidian Univ.
<i>Chaos Control of Permanent Magnet Synchronous Motor via Second Order Sliding Mode</i>				
Shuo Zhou	Guidaojiaotong Polytechnic Institute		Yu Tian	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	SunA11.14		13:30-15:30	SunA11.22
<i>Backstepping-based High-order Nonlinear Consensus for Multi Agent System via Edge Laplacian</i>				
Miaomiao Zhang	Beihang Univ.		<i>A Terminal Procedure Flight Path Construction Method based on ARINC424 Navigation Data</i>	
Chen Wei	Beihang Univ.		Tianqi Xia	AVIC Xi'an Flight Automatic Control Research Institute
13:30-15:30	SunA11.15		Rui Li	AVIC Xi'an Flight Automatic Control Research Institute
<i>Sensor Fault Diagnosis for Electro-Hydraulic Actuator based on QPSO-LSSVR</i>				
Ting Li	Northwestern Polytechnical Univ.		13:30-15:30	SunA11.23
Yongping Yu	Nanjing Engineering Institute of Aircraft Systems			
Jian Wang	Northwestern Polytechnical Univ.			
Rong Xie	Northwestern Polytechnical Univ.			
Xinmin Wang	Northwestern Polytechnical Univ.			
13:30-15:30	SunA11.16			

<i>A Volterra Series based Virtual Feedback Reference Tuning Controller for Nonlinear Systems</i>		Ruofei He	Northwestern Polytechnical Univ.
Wanyue Jiang	Nanjing Univ. of Aeronautics & Astronautics	Hongjuan Liu	Xi'an Aisheng Technology Group Company
Daobo Wang	Nanjing Univ. of Aeronautics & Astronautics	Dajian Li	Northwestern Polytechnical Univ.
Yin Wang	Nanjing Univ. of Aeronautics & Astronautics	Huixia Liu	Northwestern Polytechnical Univ.
13:30-15:30	SunA11.24	13:30-15:30	SunA11.30
<i>Step-stress Accelerated Life Testing to Predict Service Life for Space Vehicle Electrical System</i>		<i>Post Stall Maneuver Control of Advanced Fighter Considering the Unsteady Aerodynamics</i>	
Wenting Li	Beijing Aerospace Automatic Control Institute Beihang Univ.	Yongxi Lyu	Northwestern Polytechnical Univ.
Jiang Liu	Beijing Aerospace Automatic Control Institute Beihang Univ.	Weiguo Zhang	Northwestern Polytechnical Univ.
Zongyou Xiang	Beijing Aerospace Automatic Control Institute	Jingping Shi	Northwestern Polytechnical Univ.
Guangping Qi	Beijing Aerospace Automatic Control Institute	Xiaobo Qu	Northwestern Polytechnical Univ.
Hu Zhou	Beijing Aerospace Automatic Control Institute	Jun Che	Science and Technology on Aircraft Control Laboratory
13:30-15:30	SunA11.25	13:30-15:30	SunA11.31
<i>A Self-Calibration Method based on One-Time Electrification before Launching for Inertial Navigation System</i>		<i>Parametric Approach to Trajectory Tracking Control of Multiple Satellite Formation</i>	
Gang Xiang	Beijing Aerospace Automatic Control Institute	Xuejiao Sun	Harbin Institute of Technology
Feng Qiu	Beijing Aerospace Automatic Control Institute	Guangren Duan	Harbin Institute of Technology
Jing Miao	Beijing Institute of Electronic System Engineering	13:30-15:30	SunA11.32
Ran Duan	Beijing Aerospace Automatic Control Institute	<i>Design and Simulation of Transfer Orbit for Space Exploration Using Lagrange Points</i>	
13:30-15:30	SunA11.26	Ze Li	Air Force Engineering Univ.
<i>A Two-step Method Applying Support Vector Machine for Investment Decision</i>		Yonghua Li	Xi'an Satellite Control Center
Tingting Zhao	Nankai Univ.	Xiaoting Wang	Northwestern Polytechnical Univ.
Wanyi Chen	Nankai Univ.	13:30-15:30	SunA11.33
13:30-15:30	SunA11.27	<i>Fault Detection and Estimation for a Class of Nonlinear Systems based on Neural Network Observer</i>	
<i>Three-Antenna Attitude Determination Model and Algorithm based on Attitude Matrix</i>		Ruonan Wang	Nanjing Univ. of Aeronautics & Astronautics
Qingsong Li	National Univ. of Defense Technology	Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics
Liang Zhang	National Univ. of Defense Technology	Jianwei Liu	Nanjing Univ. of Aeronautics & Astronautics
Jie Wu	National Univ. of Defense Technology	13:30-15:30	SunA11.34
13:30-15:30	SunA11.28	<i>Modeling and Control for Morphing Unmanned Aircraft Vehicle</i>	
<i>Failure Prognosis for Electro-Mechanical Actuators based on Improved SMO-SVR Method</i>		Mengtao Li	Beihang Univ.
Yuyan Cao	Northwestern Polytechnical Univ.	Lei Guo	Beihang Univ.
Jian Wang	Northwestern Polytechnical Univ.	Kejian Wu	Beihang Univ.
Yongping Yu	Nanjing Engineering Institute of Aircraft Systems	13:30-15:30	SunA11.35
Rong Xie	Northwestern Polytechnical Univ.	<i>In-Flight Correction of Alignment Errors for SINS/GNSS Integrated Navigation System</i>	
Xinmin Wang	Northwestern Polytechnical Univ.	Luyang Liang	Beijing Aerospace Automatic Control Institute
13:30-15:30	SunA11.29	Feng Zhou	Beijing Aerospace Automatic Control Institute
<i>A Maximum Likelihood Estimation Approach for Image based Target Localization via Small Unmanned Aerial Vehicle</i>		Ye Yang	Beijing Aerospace Automatic Control Institute
		Tao Guo	Beijing Aerospace Automatic Control Institute
		13:30-15:30	SunA11.36
		<i>The Optimal Guidance Law for Rendezvous and Docking of Spacecraft</i>	
		Lingpu Zhu	Beihang Univ.
		Zhenghua Liu	Beihang Univ.
		Nuan Wen	Beihang Univ.
		13:30-15:30	SunA11.37

<i>Three-Dimensional Optimal Formation Reconfiguration for Multi-UAVs based on Chebyshev Pseudospectral Method</i>		Panlong Wu	Nanjing Univ. of Science & Technology
Hongmei Zhang	Shenyang Aerospace Univ.	Xingxiu Li	Nanjing Univ. of Science & Technology
Guoli Zhao	Shenyang Aerospace Univ.	Shangmin Chen	Nanjing Univ. of Science & Technology
Guangyan Xu	Shenyang Aerospace Univ.		
13:30-15:30	SunA11.38	13:30-15:30	SunA11.44
<i>Dynamics Modeling and Simulation of Three-axis Full Physics Air-bearing Table</i>		<i>Image Matching for Target Location in Airborne Optoelectronic Pod</i>	
Wen Li	National Univ. of Defense Technology	Pengju Pan	Nanjing Univ. of Aeronautics & Astronautics
Yiyong Huang	National Univ. of Defense Technology	Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
Xiang Zhang	National Univ. of Defense Technology	Qinghua Zeng	Nanjing Univ. of Aeronautics & Astronautics
13:30-15:30	SunA11.39	Yunshu Wang	Nanjing Univ. of Aeronautics & Astronautics
<i>A Method of Calculating Health Degree of Satellite Attitude Control System based on Improved Signed Directed Graph</i>		Sheng Liu	Luoyang Electro-optical Equipment Research Institute
Lihan Wang	Nanjing Univ. of Aeronautics & Astronautics	13:30-15:30	SunA11.45
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics	<i>A Developmental Actor-Critic Reinforcement Learning Approach for Task-Nonspecific Robot</i>	
Yuehua Cheng	Nanjing Univ. of Aeronautics & Astronautics	Xiaoan Li	Northwestern Polytechnical Univ.
13:30-15:30	SunA11.40	Yuan Yang	Northwestern Polytechnical Univ.
<i>Acceleration-based Multiple-loop Control of Unmanned Quadrotors with Disturbances</i>		Yunming Sun	Xi'an Aviation Computing Technology Research Institute
Y. B. He	Wuyi Univ.	Lu Zhang	Northwestern Polytechnical Univ.
H. B. Zhou	Hunan Institute of Science and Technology	13:30-15:30	SunA11.46
H. W. Yue	Wuyi Univ.	<i>A Novel Weight Fusion Approach for Multi-focus Image based on NSST Transform Domain</i>	
G. T. Qiu	Wuyi Univ.	Feng Wang	Northwestern Polytechnical Univ.
Z. Z. Lin	Wuyi Univ.	Yongmei Cheng	Northwestern Polytechnical Univ.
13:30-15:30	SunA11.41	13:30-15:30	SunA11.47
<i>Research on PSD Camera Calibration in Precise Optical Measurement</i>		<i>Structure Optimization of Permanent Magnet Spherical Motor Utilizing Improved Particle Swarm Algorithm</i>	
Xinjun Liu	AVIC Xi'an Flight Automatic Control Research Institute	Liang Yan	Beihang Univ.
Wei Li	AVIC Xi'an Flight Automatic Control Research Institute	Jingying Zhang	Beihang Univ.
Liangwen Tang	AVIC Xi'an Flight Automatic Control Research Institute	Haibin Duan	Beihang Univ.
13:30-15:30	SunA11.42	Zongxia Jiao	Beihang Univ.
<i>Decoupled Debiased Converted Measurement Kalman Filter Algorithm for Multi-target Tracking</i>		13:30-15:30	SunA11.48
Yuhao Deng	Nanjing Univ. of Science & Technology	<i>On Automatic Landing System for Carrier Plane based on Integration of INS, GPS and Vision</i>	
Panlong Wu	Nanjing Univ. of Science & Technology	Daquan Tang	Naval Aeronautical Engineering Institute
Xingxiu Li	Nanjing Univ. of Science & Technology	Yongkang Jiao	Naval Aeronautical Engineering Institute
Tao Yang	Nanjing Univ. of Science & Technology	Jie Chen	Naval Aeronautical Engineering Institute
13:30-15:30	SunA11.43	13:30-15:30	SunA11.49
<i>Autonomous Attitude Determination Technology of Satellite based on Magnetometer and Gyroscope</i>		<i>Gain Scheduling Controller of the Aero-engine based on LPV Model</i>	
Jingdan Cao	Nanjing Univ. of Science & Technology	Yuxiao Wang	Beihang Univ.
		Shaoping Wang	Beihang Univ.
		Xingjian Wang	Beihang Univ.
		Jian Shi	Beihang Univ.
		13:30-15:30	SunA11.50
		<i>Acquisition Synchronization and the Phase Modified between</i>	

Different Types of Data Acquisition Card

Jingfeng Hou	Beijing Institute Structure & Environment Engineering
Jie Liu	Beijing Institute Structure & Environment Engineering
Jiale Wang	Beijing Institute Structure & Environment Engineering
Fei Gao	Beijing Institute Structure & Environment Engineering
13:30-15:30	SunA11.51

Path Planner for UAVs Navigation based on A Algorithm Incorporating Intersection*

Qi Feng	China Aeronautical Radio Electronics Research Institute
Jiasheng Gao	Northwestern Polytechnical Univ.
Xiujian Deng	China Aeronautical Radio Electronics Research Institute
13:30-15:30	SunA11.52

Aircraft Dynamic Modeling based on Fast Pitch Dynamic Derivatives Method

Te Liu	Flight Automatic Control Research Institute
Qing Zhang	Northwestern Polytechnical Univ.
Lin Hou	Flight Automatic Control Research Institute
Liangwen Tang	Flight Automatic Control Research Institute
Chao Zhao	Flight Automatic Control Research Institute
13:30-15:30	SunA11.53

The Application of Echo State Network and Recurrent Multilayer Perceptron in Rotating Machinery Fault Prognosis

Yuan Xie	Tsinghua Univ.
Tao Zhang	Tsinghua Univ.
13:30-15:30	SunA11.54

The Angle of Attack Measurement Design for L-shaped Multifunction Air Data Probe

Wenjun Chen	AVIC Taiyuan Aero-Instruments Co. Ltd.
Yanyan Zhang	AVIC Taiyuan Aero-Instruments Co. Ltd.
13:30-15:30	SunA11.55

An Airspeed & Vertical Velocity Correction Approach of Helicopter based on INS Information Fusion

Xiaogang Xuan	AVIC Taiyuan Aero-Instruments Co. Ltd.
Yingping Zhu	AVIC Taiyuan Aero-Instruments Co. Ltd.
13:30-15:30	SunA11.56

Trajectory Programming and Guidance Integrated Method based on Time-Constraint

Jieyun Zheng	National Univ. of Defense Technology
Xinjian Liu	National Univ. of Defense Technology
13:30-15:30	SunA11.57

An Improved Attitude Algorithm of Two-Sample Rotation Vector

Jiale Liu	Nanjing Univ. of Science and Technology
Panlong Wu	Nanjing Univ. of Science and Technology
Jingji Bai	Nanjing Univ. of Science and Technology
13:30-15:30	SunA11.58

Design and Modeling of a Rectangular Direct-Acting Solenoid Valve

Liang Yan	Beihang Univ.
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Lu Zhang	Beihang Univ.
Zongxia Jiao	Beihang Univ.
13:30-15:30	SunA11.59

Aircraft Guidance Instrumentation Error Estimation based on Neural Network Method

Ying Hao	China Academy of Launch Vehicle Technology
Yuhang Wang	China Academy of Launch Vehicle Technology
13:30-15:30	SunA11.60

High Earth Orbital Satellite Autonomous Navigation based on Ultraviolet Sensors and GNSS

Mengchen Huo	National Univ. of Defense Technology
Xueying An	National Univ. of Defense Technology
Yidi Wang	National Univ. of Defense Technology
Jie Wu	National Univ. of Defense Technology
Wei Zheng	National Univ. of Defense Technology

SunB1 ROOM 206, Main Bld Fault Diagnosis & FTC II (Regular Session)

Chairs: Ruiyun Qi	Nanjing Univ. of Aeronautics & Astronautics
Zhaolei Wang	Beijing Aerospace Automatic Control Institute
15:50-16:05	SunB1.1

Distributed Adaptive Observers-based Fault Estimation for Leader-following Multi-agent Linear Uncertain Systems with Actuator Faults

Chun Liu	Nanjing Univ. of Aeronautics & Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics
Ke Zhang	Nanjing Univ. of Aeronautics & Astronautics
16:05-16:20	SunB1.2

Distributed Fault Estimation basing on a United Adaptive and Sliding-Mode Observer for Multi-Agent Systems

Yuhang Xu	Nanjing Univ. of Aeronautics & Astronautics
Bin Jiang	Nanjing Univ. of Aeronautics & Astronautics
Ke Zhang	Nanjing Univ. of Aeronautics & Astronautics
16:20-16:35	SunB1.3

Fault Diagnosability Qualitative Analysis of Spacecraft based on Temporal Fault Signature Matrix

Jiang Liu	Beihang Univ.
Yongzhao Hua	Beihang Univ.
Qingdong Li	Beihang Univ.
Zhang Ren	Beihang Univ.
16:35-16:50	SunB1.4

Multiple Model-based Fault Diagnosis Using Unknown Input Observers

Y. S. Liu	Beihang Univ.
P. P. Zuo	Beihang Univ.
Q. D. Li	Beihang Univ.
Z. Ren	Beihang Univ.

16:50-17:05	SunB1.5
<i>Research of Fault Diagnosis Method for an Electric Component based on Immune Neural Network and Pspice</i>	
Jichuan Huang	Northwestern Polytechnical Univ.
Deyun Zhou	Northwestern Polytechnical Univ.
Xianyong Jing	Aviation Univ. of Air Force.
Manyi Hou	Aviation Univ. of Air Force.
17:05-17:20	SunB1.6
<i>Robust Fault Detection for the Networked Flight Vehicle under Asynchronous Switching</i>	
Zhaolei Wang	Beijing Aerospace Automatic Control Institute
Ran Duan	Beijing Aerospace Automatic Control Institute
Hua Huang	Beijing Aerospace Automatic Control Institute
17:20-17:35	SunB1.7
<i>Fuzzy Logic based Approach and Sensitivity Analysis of Irregular Driving Detection Algorithm</i>	
Rui Sun	Nanjing Univ. of Aeronautics & Astronautics
Yucheng Zhang	Nanjing Univ. of Aeronautics & Astronautics
Hongyang Bai	Nanjing Univ. of Science & Technology
Wenjie Su	Nanjing Univ. of Science & Technology
17:35-17:50	SunB1.8
<i>Unmanned Aerial Vehicle based Forest Fire Monitoring and Detection Using Image Processing Technique</i>	
Chi Yuan	Concordia Univ.
Khaled A. Ghamry	Concordia Univ.
Zhixiang Liu	Concordia Univ.
Youmin Zhang	Concordia Univ.
	Xi'an Univ. of Technology
SunB2 ROOM 205, Main Bld	
Estimation & Tracking II (Regular Session)	
Chairs: Shouzhao Sheng	Nanjing Univ. of Aeronautics & Astronautics
Mingliang Song	Tsinghua Univ.
15:50-16:05	SunB2.1
<i>A Fuel Measurement Method with Reduced-dimension Look-up Table</i>	
Mei Yuan	Beihang Univ.
Ben Niu	Beihang Univ.
Yiqiang He	Beihang Univ.
Shaopeng Dong	Beihang Univ.
16:05-16:20	SunB2.2
<i>Analysis and Compensation of Rotating Shaft Fluctuation on Rotation Inertial Navigation System</i>	
Yong Jia	Northwestern Polytechnical Univ.
Suilao Li	Northwestern Polytechnical Univ.
Yefeng Xu	Beijing Star Network Technology Co. Ltd.
16:20-16:35	SunB2.3
<i>Testing Methods for Performance of Steering Gear System</i>	

<i>based on LabVIEW</i>	
Jiayue Li	Beihang Univ.
Zhaoqin Peng	Beihang Univ.
Maidan Luo	Beihang Univ.
16:35-16:50	SunB2.4
<i>Control Scheme and Error Suppression Method for Micro Rate Integrating Gyroscopes</i>	
Mingliang Song	Tsinghua Univ.
Bin Zhou	Tsinghua Univ.
Yongjian Zhang	Tsinghua Univ.
Xinxi Zhang	Tsinghua Univ.
	Academy of Armored Force Engineering
Bo Hou	Tsinghua Univ.
Rong Zhang	Tsinghua Univ.
16:50-17:05	SunB2.5
<i>On the Detection Algorithm of Outliers of Multi-source Integrated Navigation System</i>	
Panfei Tang	Nanjing Univ. of Aeronautics & Astronautics
Jianxin Xu	Nanjing Univ. of Aeronautics & Astronautics
Zhi Xiong	Nanjing Univ. of Aeronautics & Astronautics
Xuebo Kong	Nanjing Univ. of Aeronautics & Astronautics
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
17:05-17:20	SunB2.6
<i>Novel Detection Model for MIMO Radar in Multipath Environment</i>	
Junpeng Shi	Air Force Engineering Univ.
Guoping Hu	Air Force Engineering Univ.
Hao Zhou	Air Force Engineering Univ.
Mingjun Chen	Unit-94921 of the PLA
17:20-17:35	SunB2.7
<i>Assessment of Zero-Velocity Detectors for Pedestrian Navigation System Using MIMU</i>	
Changhao Chen	National Univ. of Defense Technology
Ze Chen	National Univ. of Defense Technology
Xianfei Pan	National Univ. of Defense Technology
Xiaoping Hu	National Univ. of Defense Technology
17:35-17:50	SunB2.8
<i>Design and Finite Element Analysis of Large Target Tracking Turntable</i>	
Yongguang Liu	Beihang Univ.
Hengzhen Zhang	Beihang Univ.
Hui Hu	Beihang Univ.
Yunlong Li	Beihang Univ.

SunB3 ROOM 204, Main Bld
GNC (Regular Session)

Chairs: Qingji Gao Jin Liang	Civil Aviation University of China AVIC Xi'an Flight Automatic Control Research Institute
15:50-16:05	SunB3.1
<i>Research on Maneuver Flight Control of Flying Wing Aircraft with Small Aspect Ratio</i>	
Wen Ma	AVIC Xi'an Flight Automatic Control Research Institute
Yixuan Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Ning Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Rong Ma	AVIC Xi'an Flight Automatic Control Research Institute
16:05-16:20	SunB3.2
<i>Multi-objective Optimizing Design of Longitudinal Flight Control System based on Evolutionary Algorithm</i>	
Jian Guan	China Aerodynamic Research & Development Center
Linliang Guo	China Aerodynamic Research & Development Center
16:20-16:35	SunB3.3
<i>The Control Law Design and Simulation for a Micro-morphing UAV</i>	
Wei Qin	AVIC Xi'an Flight Automatic Control Research Institute
Ling Zuo	AVIC Xi'an Flight Automatic Control Research Institute
Haijun Zhou	AVIC Xi'an Flight Automatic Control Research Institute
16:35-16:50	SunB3.4
<i>Robust Gain Scheduling Control Law Design for Flying Wing UAV Lateral-Directional Axis based on LPV</i>	
Yixuan Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Ning Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Wen Ma	AVIC Xi'an Flight Automatic Control Research Institute
Chao Zhao	AVIC Xi'an Flight Automatic Control Research Institute
16:50-17:05	SunB3.5
<i>Chaff Jamming Distinguishing Methods based on the Analysis of Time and Frequency Domain</i>	
Siwen Cheng	Shanghai Radio Equipment Research Institute
Caiyun She	Shanghai Radio Equipment Research Institute
Tingting Ma	Shanghai Radio Equipment Research Institute
Yiming Cao	Shanghai Radio Equipment Research Institute
17:05-17:20	SunB3.6
<i>The Design and Implement of a Noise Radar Signal based on Random Interrupt</i>	
Caiyun She	Shanghai Radio Equipment Research Institute

Siwen Cheng	Shanghai Radio Equipment Research Institute
Zhenhu Xi	Shanghai Radio Equipment Research Institute
Xianchao Ma	Shanghai Radio Equipment Research Institute
17:20-17:35	SunB3.7
<i>Synchronization Control for Dual-revolution Scanning System for Space Optical Remote Sensors</i>	
Jing Li	Beijing Institute of Space Mechanics & Electricity
Yinlong Li	Beijing Institute of Space Mechanics & Electricity
Ziyin Chen	Beijing Institute of Space Mechanics & Electricity
Zhe Lin	Beijing Institute of Space Mechanics & Electricity
17:35-17:50	SunB3.8
<i>Design and Simulation Test for Cooperative Control System based on UAVs</i>	
Jin Liang	AVIC Xi'an Flight Automatic Control Research Institute
SunB4 ROOM 203, Main Bid Navigation & Sensor Systems (Regular Session)	
Chairs: Qinghua Zeng	Nanjing Univ. of Aeronautics & Astronautics
Xianglun Zhang	AVIC Xi'an Flight Automatic Control Research Institute
15:50-16:05	SunB4.1
<i>An Optimization Algorithm for BDS Ambiguity Resolution with INS Aiding</i>	
Xufei Peng	AVIC Xi'an Flight Automatic Control Research Institute
Yazhou Yue	AVIC Xi'an Flight Automatic Control Research Institute
Guangen Gao	AVIC Xi'an Flight Automatic Control Research Institute
16:05-16:20	SunB4.2
<i>Accuracy Analysis for Emergency Localization of a Single Satellite based on Continuous Ranging</i>	
Chao Gu	AVIC Xi'an Flight Automatic Control Research Institute
Ketao Li	Northwestern Polytechnical Univ.
Sihai Li	Northwestern Polytechnical Univ.
16:20-16:35	SunB4.3
<i>DOV Compensation for INS/CNS Integrated Navigation System</i>	
Wei Li	National Key Laboratory of Science & Technology on Aircraft Control
Qi Zhou	National Key Laboratory of Science & Technology on Aircraft Control
Yu Tian	National Key Laboratory of Science & Technology on Aircraft Control
Yazhou Yue	National Key Laboratory of Science & Technology on Aircraft Control
16:35-16:50	SunB4.4
<i>Deception Jamming Detecting Technology based on High</i>	

<i>Precision Time and INS Information</i>	
Guangen Gao	AVIC Xi'an Flight Automatic Control Research Institute
Chao Gu	AVIC Xi'an Flight Automatic Control Research Institute
Huisuo Zhang	AVIC Xi'an Flight Automatic Control Research Institute
16:50-17:05	SunB4.5
<i>Parallel Control Method of CMAC and PID in Airborne Satellite Antenna Servo System</i>	
Jingui Zhang	The 54th Research Institute of CETC
Yuzhan Wu	Beihang Univ.
17:05-17:20	SunB4.6
<i>The Radar Stealth Design and Test Verification of the Air Data Probe for the New Type of Stealthy Aircraft</i>	
Li Zhang	Taiyuan Aero-Instruments Co. Ltd.
Huixin Zhang	Taiyuan Aero-Instruments Co. Ltd.
Lingyan Sun	Taiyuan Aero-Instruments Co. Ltd.
17:20-17:35	SunB4.7
<i>Calibration of MEMS Accelerometer based on Gauss-Newton Iteration Algorithm</i>	
Yi Gui	Xi'an Flight Automatic Control Research Institute
17:35-17:50	SunB4.8
<i>A Method on Making Guide Stars Catalog based on Attitude Accuracy of Star Sensor</i>	
Shuodong Sun	Shanghai Institute of Spaceflight Control Technology
Zhilong Ye	Shanghai Institute of Spaceflight Control Technology
Jinjing Li	Shanghai Institute of Spaceflight Control Technology

SunB5 ROOM 208, Bld 1
Distributed Control of Multi Vehicles (Regular Session)

Chairs: Bo Zhu	Univ. of Electronic Science & Technology of China
Weiwei Cai	National Univ. of Defense Technology
15:50-16:05	SunB5.1
<i>Distributed Control for Flight-path Angle Synchronized Tracking of Multiple Fixed-wing Aircraft</i>	
Yang Zhu	Univ. of Electronic Science & Technology of China
Bo Zhu	Univ. of Electronic Science & Technology of China
Kaiyu Qin	Univ. of Electronic Science & Technology of China
Hugh Hongtao Liu	Univ. of Toronto Institute for Aerospace Studies(UTIAS)
16:05-16:20	SunB5.2
<i>Consensus of Multiple Flight Vehicles in the Presence of Control Input Constraint</i>	
Enjiao Zhao	Harbin Institute of Technology
Tao Chao	Harbin Institute of Technology
Songyan Wang	Harbin Institute of Technology
Ming Yang	Harbin Institute of Technology

16:20-16:35	SunB5.3
<i>Circular Formation Tracking Control for Time-delayed Second-order Multi-agent Systems with Multiple Leaders</i>	
Liang Han	Beihang Univ.
Xiwang Dong	Beihang Univ.
Ke Yi	Beihang Univ.
Qingke Tan	Beihang Univ.
Qingdong Li	Beihang Univ.
Zhang Ren	Beihang Univ.
16:35-16:50	SunB5.4
<i>Guidance Strategy Design for Space Debris Removal Using Fractionated Spacecraft</i>	
Xinglong Li	Harbin Institute of Technology
Yu Yao	Harbin Institute of Technology
Baoqing Yang	Harbin Institute of Technology
Long Wang	Harbin Institute of Technology
16:50-17:05	SunB5.5
<i>One Virtual Structure Formation Control Approach based on RRT and Fuzzy Control Algorithm</i>	
Guangping Qi	Beijing Aerospace Automatic Control Institute
Zongyou Xiang	Beijing Aerospace Automatic Control Institute
Bo Lu	Beijing Aerospace Automatic Control Institute
Hu Zhou	Beijing Aerospace Automatic Control Institute
Wenting Li	Beijing Aerospace Automatic Control Institute
17:05-17:20	SunB5.6
<i>Two-Craft Lorentz Force Formation Dynamics and Control</i>	
Siyang Zhang	Technology & Engineering Center for Space Utilization
Shuquan Wang	Technology & Engineering Center for Space Utilization
17:20-17:35	SunB5.7
<i>Research on MPC Formation Control Algorithm based on Centralized-Distributed Information Interactive Strategy</i>	
Shaolei Zhou	Naval Aeronautical & Astronautical Institute Yantai
Yuhang Kang	Naval Aeronautical & Astronautical Institute Yantai
Chao Zhou	Naval Equipment Research Institute Beijing
Xianjun Shi	Naval Aeronautical & Astronautical Institute Yantai
Huibo Lin	Naval Aeronautical & Astronautical Institute Yantai
17:35-17:50	SunB5.8
<i>Study on the Implications of Inter-Satellite Electromagnetic Forces for Relative Translational Motion</i>	
Weiwei Cai	National Univ. of Defense Technology
Pu Zeng	National Univ. of Defense Technology
Leping Yang	National Univ. of Defense Technology
Yanwei Zhu	National Univ. of Defense Technology

SunB6 ROOM 209, Bld 1

Intelligent Computing & Simulation (Regular Session)	
Chairs: Donghui Wang	AVIC Xi'an Flight Automatic Control Research Institute
Penglong Jiang	Beijing Aerospace Automatic Control Research Institute
15:50-16:05	SunB6.1
<i>On Multi Core Parallel Processing System for FPGA based Image Algorithms</i>	
Yan Hong	Beijing Aerospace Automatic Control Research Institute
16:05-16:20	SunB6.2
<i>Hardware Design and Implementation Technology of Multi-dimensional Kalman Filter</i>	
Penglong Jiang	Beijing Aerospace Automatic Control Research Institute
16:20-16:35	SunB6.3
<i>Research of Catapult Launch and Net Recovery for Unmanned Aerial Vehicle (UAV)</i>	
Sen Yang	National Key Laboratory of Science & Technology on Aircraft Control
Lin Hou	National Key Laboratory of Science & Technology on Aircraft Control
Liangwen Tang	National Key Laboratory of Science & Technology on Aircraft Control.
Haijun Zhou	National Key Laboratory of Science & Technology on Aircraft Control
16:35-16:50	SunB6.4
<i>Applications of Differential Rudder to Control and Reconfiguration of Tailless Aircraft</i>	
Ning Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Yixuan Zhang	AVIC Xi'an Flight Automatic Control Research Institute
Xiaolong Chen	AVIC Xi'an Flight Automatic Control Research Institute
Dongliang Song	AVIC Xi'an Flight Automatic Control Research
16:50-17:05	SunB6.5
<i>A Real-Time UAV Obstacle Avoidance Approach based on 2D Laser Radar</i>	
Jia Li	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
Rong Ma	AVIC Xi'an Flight Automatic Control Research Institute
17:05-17:20	SunB6.6
<i>The Guidance Law Design of UAVs' Vertical Net Recovery based on Relative Track Prediction</i>	
Lin Hou	AVIC Xi'an Flight Automatic Control Research Institute
Sen Yang	AVIC Xi'an Flight Automatic Control Research Institute
Xiafu Wang	High-Tech Institute of Xi'an
Liangwen Tang	AVIC Xi'an Flight Automatic

Te Liu	Control Research Institute AVIC Xi'an Flight Automatic Control Research Institute
Chao Zhao	AVIC Xi'an Flight Automatic Control Research Institute
17:20-17:35	SunB6.7
<i>Analysis and Application the Safety of Aircraft Engine Control Software based on STPA</i>	
Xingxian Xu	AVIC Aviation Motor Control System Institute
Wei Du	AVIC Aviation Motor Control System Institute
Yuyue Liu	AVIC Aviation Motor Control System Institute
17:35-17:50	SunB6.8
<i>Application Research of Embedded Real-time Operating System in Flight Control System</i>	
Qiang Tong	CoreTek Systems Incorporated, Beijing
Limeng Yin	CoreTek Systems Incorporated, Beijing
Yan Li	CoreTek Systems Incorporated, Beijing
JidongXiong	CoreTek Systems Incorporated, Beijing
Siliang Hua	CoreTek Systems Incorporated, Beijing

**SunB7 ROOM 212, Bid 1
Intelligent autonomous system II (Invited Session)**

Chairs:	
Zhengyu Song	Beijing Aerospace Automatic Control
Zhenqiang Qi	Beijing Aerospace Automatic Control
Kunfeng Lu	Beijing Aerospace Automatic Control
Orgnizer(s):	
Zhengyu Song	Beijing Aerospace Automatic Control
Zhenqiang Qi	Beijing Aerospace Automatic Control
Kunfeng Lu	Beijing Aerospace Automatic Control
15:50-16:05	SunB7.1
<i>Infrared Small Target Detection based on Visual Saliency</i>	
Hui Zhang	Beijing Aerospace Automatic Control Institute
Yan Liu	Beijing Aerospace Automatic Control Institute
Bin Zhou	Beijing Aerospace Automatic Control Institute
Bo Tang	Beijing Aerospace Automatic Control Institute
16:05-16:20	SunB7.2
<i>An Edge Detection Method based on Information Fusion</i>	
Wen Ju	Beijing Aerospace Automatic Control Institute
Jiaolong Liu	Beijing Aerospace Automatic Control Institute
Gaohua Cai	Beijing Aerospace Automatic Control Institute
Hongquan Yun	Beijing Aerospace Automatic Control Institute
16:20-16:35	SunB7.3
<i>Heavy Lift Launch Vehicle Technology of Adaptive Augmented Fault Tolerant Control</i>	
Liang Zhang	Harbin Institute of Technology

Sliding Mode Controller Design for UAV based on Backstepping Control

He Li	Beihang Univ.
Yunjie Wu	Beihang Univ.
Jingxing Zuo	Beihang Univ.
17:05-17:20	SunB8.6

Interactive Solution for Man-machine System based on MEMS Sensors

Kai Sun	Beijing Aerospace Automatic Control Institute
Wenhui Chen	Beijing Aerospace Automatic Control Institute
Cheng Guo	Beijing Aerospace Automatic Control Institute
Lu Sun	Beijing Aerospace Automatic Control Institute
17:20-17:35	SunB8.7

An Adaptive Sliding Mode Control based on Radial Basis Function Network for Attitude Tracking Control of Four Rotor Hover System

Roohul Amin	Northwestern Polytechnical Univ.
Aijun Li	Northwestern Polytechnical Univ.
Hongshi Lu	Northwestern Polytechnical Univ.
Jiaxing Li	Chang'an Univ.
17:35-17:50	SunB8.8

Trajectory Optimization for Arrival Aircraft Using a Hybrid IPSO-SQP Algorithm

Chen Yang	Beihang Univ.
Yingrong Yu	Beihang Univ.
Qingdong Li	Beihang Univ.
Zhang Ren	Beihang Univ.

**SunB9 ROOM 310, Main Bld
UAV Autonomous Control IV (Regular Session)**

Chairs: Xiwang Dong	Beihang Univ.
Qinglin Sun	Nankai Univ.
15:50-16:05	SunB9.1

A Path Following Algorithm with Waypoint Switching Strategy for Unmanned Aerial Vehicle based on the Geometric

Kun Wu	Beihang Univ.
Zhihao Cai	Beihang Univ.
Yingxun Wang	Beihang Univ.
16:05-16:20	SunB9.2

Design of Distributed Flight Control Software based on Software Bus

Ying Fan	Nanjing Univ. of Aeronautics & Astronautics
Xiujuan Li	Nanjing Univ. of Aeronautics & Astronautics
Chuntao Li	Nanjing Univ. of Aeronautics & Astronautics
Zhenyu Jia	Nanjing Univ. of Aeronautics & Astronautics
16:20-16:35	SunB9.3

Task Allocation Method of Manned/Unmanned Aerial Vehicle Formation based on Extended CNP

Yuefeng Liu	Science and Technology on Electro-
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Jie Zou	optic Control Laboratory, Luoyang Science and Technology on Electro-optic Control Laboratory, Luoyang
Houjun Sun	Science and Technology on Electro-optic Control Laboratory, Luoyang
16:35-16:50	SunB9.4

Autonomous Homing Control of a Parafoil System based on ADRC

Jin Tao	Nankai Univ.
Qinglin Sun	Nankai Univ.
Zengqiang Chen	Nankai Univ.
Yingping He	Aviation Industry Corporation of China
16:50-17:05	SunB9.5

On-line Path Planning for the Fixed-wing UAV in Obstacle Environment

Zhong Wang	Northwestern Polytechnical Univ.
Yixin Wang	Northwestern Polytechnical Univ.
Yan Li	Northwestern Polytechnical Univ.
17:05-17:20	SunB9.6

The Minimum Jerk Trajectory Generation of a Quadrotor based on the Differential Flatness

Jing Yu	Beihang Univ.
Zhihao Cai	Beihang Univ.
Yingxun Wang	Beihang Univ.
17:20-17:35	SunB9.7

An Improved Model Aided Navigation Method with Online Dynamics Parameters Estimation for Multirotor UAV

Wenjing Chen	Nanjing Univ. of Aeronautics & Astronautics
Jizhou Lai	Nanjing Univ. of Aeronautics & Astronautics
Min Liu	Nanjing Univ. of Aeronautics & Astronautics
Pin Lv	Univ. of Toronto Institute for Aerospace Studies (UTIAS)
Jianye Liu	Nanjing Univ. of Aeronautics & Astronautics
17:35-17:50	SunB9.8

Optimization of Flight Control Strategy for Solar-powered UAV based on Gauss Pseudo Spectral Method

Yining Wang	Beihang Univ.
Yunhe Zhao	Beihang Univ.
Qingdong Li	Beihang Univ.
Zhang Ren	Beihang Univ.

**SunB10 ROOM 308, Main Bld
Modeling & Simulation IV (Regular Session)**

Chairs: Hao Yang	Nanjing Univ. of Aeronautics & Astronautics
Siwen Cheng	Shanghai Radio Equipment Research Institute
15:50-16:05	SunB10.1

Emergency Simulation of Flight Control System on Flight Simulator

Pengxuan Zhao	First Aircraft Design Institute of AVIC
Yakui Gao	First Aircraft Design Institute of AVIC
Jiang Zhu	First Aircraft Design Institute of AVIC

16:05-16:20	SunB10.2
<i>Application of Model based System Engineering in Airborne Electronic System</i>	
Yongqing Cui	AVIC Shaanxi Baocheng Aviation Instrument Co. Ltd.
Qichao Yang	AVIC Shaanxi Baocheng Aviation Instrument Co. Ltd.
Meiyu Cui	Information Technology Centre, AVIC
Wenquan Wang	Information Technology Centre, AVIC
16:20-16:35	SunB10.3
<i>Radar Signal Modeling and Simulation based on TOA Linked List</i>	
Siwen Cheng	Shanghai Radio Equipment Research Institute
Jia Wang	Shanghai Radio Equipment Research Institute
Caiyun She	Shanghai Radio Equipment Research Institute
Xianhong Hu	Shanghai Radio Equipment Research Institute
16:35-16:50	SunB10.4
<i>The Research of the Export Strategy of History Data based on the Fast Ethernet Controller of POWERPC</i>	
Jiaying Yu	AVIC Aviation Motor Control System Institute
16:50-17:05	SunB10.5
<i>The Study of Inverted Pendulum Embedded Control System based on Model Design</i>	
Huihui Wang	Beijing Aerospace Automatic Control Research Institute
Botao Guo	Beijing Aerospace Automatic Control Research Institute
Xin Li	Beijing Aerospace Automatic Control Research Institute
17:05-17:20	SunB10.6
<i>FlightGear- and Matlab-based Servo Control System Simulation for Airborne Satellite Antenna</i>	
Jingui Zhang	The 54th Research Institute of CETC
Yuzhan Wu	Beihang Univ.
17:20-17:35	SunB10.7
<i>The Application of Model in the Concept of Operations Development</i>	
Xingmin Deng	AVIC Qingan Corporation, Xi'an
Yongjun Qie	AVIC Information Technology Co. Ltd.
Liang Zhu	AVIC Information Technology Co. Ltd.
Weijie Zhu	AVIC Information Technology Co. Ltd.
Junrun Wang	AVIC Qingan Corporation, Xi'an
17:35-17:50	SunB10.8
<i>Research and Development of Visual Ocean Effects in Ship Simulator</i>	
Zhangfa Liu	Beijing Bluesky Aviation Technology Co. Ltd.
Zhe Gao	Beijing Bluesky Aviation Technology Co. Ltd.
Tao Cui	Beijing Bluesky Aviation Technology Co. Ltd.

SunB11

ROOM 307, Main Bld

Interactive Session IV	
Chairs: Lin Tie	Beihang Univ.
Wei Wang	Beihang Univ.
15:50-17:50	SunB11.1
<i>Wind Estimation Using the Position Information from a Hovering Quadrotor</i>	
Yaohong Qu	Northwestern Polytechnical Univ.
Zhewen Xing	Northwestern Polytechnical Univ.
Youmin Zhang	Concordia Univ., Canada
15:50-17:50	SunB11.2
<i>Nonlinear Attitude Control of Tiltrotor Aircraft based on Active Disturbance Rejection Sliding Mode Method</i>	
Zhen Pan	Beihang Univ.
Weihong Wang	Beihang Univ.
Siyang Song	Beihang Univ.
Ke Lu	Science and Technology on Rotorcraft Aeromechanics Laboratory
15:50-17:50	SunB11.3
<i>A Testing Case Chain based Method for the Failure Reproduction of Flight Control Software</i>	
Xiaoting Du	Beihang Univ.
Nan Wang	Beihang Univ.
15:50-17:50	SunB11.4
<i>Adaptive Fuzzy Sliding Mode Control Algorithm based on Input-output Linearization for Vehicle's Lateral Control</i>	
Chaobo Chen	Xi'an Technological Univ.
Junfeng Lv	Xi'an Technological Univ.
Song Gao	Xi'an Technological Univ.
Hailong Liu	Xi'an Technological Univ.
15:50-17:50	SunB11.5
<i>Modeling and Controller Design by Sliding-mode Control for Refueling Boom</i>	
Yaohong Qu	Northwestern Polytechnical Univ.
Qingjie He	Northwestern Polytechnical Univ.
Ziquan Yu	Northwestern Polytechnical Univ.
15:50-17:50	SunB11.6
<i>Robust Zero-Sum Differential Game for Uncertain Nonlinear Systems via Adaptive Dynamic Programming</i>	
Jingliang Sun	Nanjing Univ. of Aeronautics & Astronautics
Chunsheng Liu	Nanjing Univ. of Aeronautics & Astronautics
Along Wei	Nanjing Univ. of Aeronautics & Astronautics
15:50-17:50	SunB11.7
<i>Terminal Sliding Mode Attitude Controller Design for a Near-space Hypersonic Vehicle</i>	
P. Wang	National Univ. of Defense Technology
Q. J. Liu	The Science and Technology on Space Physics Laboratory
15:50-17:50	SunB11.8
<i>The Guidance Control System Design of a Miniature Guided Ammunition</i>	
Xiaoqian An	Beijing Information Science & Technology Univ.
Junfang Fan	Beijing Information Science &

	Technology Univ.	Ming Yang	Harbin Institute of Technology
15:50-17:50	SunB11.9	15:50-17:50	SunB11.16
<i>A New Interharmonics Detection Method based on Spectrum Leakage</i>		<i>Comparative Analysis of the Classic Ground Attack Terminal Guidance Laws</i>	
Jingxiang Zeng	Jinan Univ.	Daoguang Tang	Beijing Institute of Technology
Xingong Cheng	Jinan Univ.	Hui Wang	Beijing Institute of Technology
Xiju Zong	Jinan Univ.	Qiugui Song	North Automatic Control Technology Institute
15:50-17:50	SunB11.10	15:50-17:50	SunB11.17
<i>The Motion Control of Aircraft Skin Detection Robot with Double Frames based on Adaptive Least Square Support Vector Regression</i>		<i>Multi-objective Optimization of Reentry Trajectory for Hypersonic Gliding Vehicle</i>	
Linfeng Wu	Nanjing Univ. of Aeronautics & Astronautics	Dali Ding	Air force Engineering Univ.
Congqing Wang	Nanjing Univ. of Aeronautics & Astronautics	Haifeng Guo	Air force Engineering Univ.
Yong Xie	Nanjing Univ. of Aeronautics & Astronautics	Liqiong Huang	North Electro-Optics Science & Technology Defense Co. Ltd.
15:50-17:50	SunB11.11	Yuan Wang	Air force Engineering Univ.
<i>Research on Distributed Morphing Control of Micro Morphing Aircraft</i>		15:50-17:50	SunB11.18
Liangwen Tang	Xi'an Flight Automatic Control Research Institute	<i>A Method for Predicting Aviation Equipment Failures based on Degradation-Track Similarity</i>	
Lin Hou	Xi'an Flight Automatic Control Research Institute	Xin Zhao	Air force Engineering Univ.
Te Liu	Xi'an Flight Automatic Control Research Institute	Mingqing Xiao	Air force Engineering Univ.
Chao Zhao	Xi'an Flight Automatic Control Research Institute	Yiwanglang Xie	Air force Engineering Univ.
Haijun Zhou	Xi'an Flight Automatic Control Research Institute	Hanqiao Huang	Air force Engineering Univ.
15:50-17:50	SunB11.12	Wei Cao	No. 95107Unit of PLA
<i>Multi-rotor Pseudo-inverse Method Research based on Kernel Space</i>		15:50-17:50	SunB11.19
Kunpeng Li	Beihang Univ.	<i>Motion Synchronization of HA/EHA System for a Large Civil Aircraft by Using Adaptive Control</i>	
Ziwei Song	Beihang Univ.	Waheed Ur Rehman	Beihang Univ.
Zhihao Cai	Beihang Univ.	Xingjian Wang	Beihang Univ.
Yingxun Wang	Beihang Univ.	Shaoping Wang	Beihang Univ.
15:50-17:50	SunB11.13	Irfan Azhar	Beihang Univ.
<i>An Improved Joint Probabilistic Data Association Multi-target Tracking Algorithm</i>		15:50-17:50	SunB11.20
Changcheng Wang	Shanghai Jiao Tong Univ.	<i>Design and Implementation of Long-time Coherent Integration Algorithm based on Multi-core DSP</i>	
Jingjing Yang	Shanghai Aerospace Control Technology Institute	Xianchao Ma	Shanghai Radio Equipment Research Institute
Yunze Cai	Shanghai Jiao Tong Univ.	Zhenghu Xi	Shanghai Radio Equipment Research Institute
15:50-17:50	SunB11.14	Jie Wang	Shanghai Radio Equipment Research Institute
<i>Longitudinal Short Period Flight Quality Analysis of Flexible Aircraft</i>		Caiyun She	Shanghai Radio Equipment Research Institute
Hao Dong	Beihang Univ.	Jia Wang	Shanghai Radio Equipment Research Institute
Daochun Li	Beihang Univ.	15:50-17:50	SunB11.21
Jinwu Xiang	Beihang Univ.	<i>Fuzzy Global Sliding Mode Control for Uncertain Delay Systems with Actuator Faults</i>	
Yining Wu	Beihang Univ.	Ben Ma	Nanjing Univ. of Aeronautics and Astronautics
15:50-17:50	SunB11.15	Pu Yang	Nanjing Univ. of Aeronautics and Astronautics
<i>Improved Semi-Major Axis Iterated Method for Lambert's Problem</i>		Xiju Lu	Shanghai Aircraft Manufacturing Co. Ltd.
Ruiye Jiang	Harbin Institute of Technology	Yan Dong	Nanjing Univ. of Aeronautics and Astronautics
Tao Chao	Harbin Institute of Technology	15:50-17:50	SunB11.22
Songyan Wang	Harbin Institute of Technology	<i>A GPS/INS Navigation Strategy of Dealing with Extreme Cases by Cooperating Radar</i>	

Zhi Liu	Shanghai Jiao Tong Univ.	Dynamics, Xi'an
Huabao Long	Shanghai Aerospace Control Technology Institute	State Key Laboratory of Astronautic Dynamics, Xi'an
Jie He	Eighth Design Department of Shanghai Spaceflight Bureau	State Key Laboratory of Astronautic Dynamics, Xi'an
Yunze Cai	Shanghai Jiao Tong Univ.	State Key Laboratory of Astronautic Dynamics, Xi'an
15:50-17:50	SunB11.23	
<i>Repetitive Control of Underdamped Linear Oscillating Motor</i>		
Zhanqi Chen	Beihang Univ.	
Zongxia Jiao	Beihang Univ.	
15:50-17:50	SunB11.24	
<i>Inlet Starting Protection based on the Fuel Supply Adjustment Control Design and Simulation Study</i>		
Yue Chen	National Univ. of Defense Technology	
Xianyu Wu	National Univ. of Defense Technology	
Jun Yang	National Univ. of Defense Technology	
Xuan Jin	National Univ. of Defense Technology	
15:50-17:50	SunB11.25	
<i>Obstacle-avoidance Strategy for Small Scale Unmanned Helicopter</i>		
Yurong Yang	Nanjing Univ. of Aeronautics & Astronautics	
Huajun Gong	Nanjing Univ. of Aeronautics & Astronautics	
Xinhua Wang	Nanjing Univ. of Aeronautics & Astronautics	
Sen Jia	Nanjing Univ. of Aeronautics & Astronautics	
15:50-17:50	SunB11.26	
<i>A Novel Algorithm for Fixed Interval Smoother based on Kalman Filter</i>		
Tai Shang	National Univ. of Defense Technology	
Guangfeng Lu	National Univ. of Defense Technology	
Kongyun Hu	National Univ. of Defense Technology	
15:50-17:50	SunB11.27	
<i>Position Control of Telescopic Legs for an Aircraft Skin Detection Robot</i>		
Yong Xie	Nanjing Univ. of Aeronautics & Astronautics	
Congqing Wang	Nanjing Univ. of Aeronautics & Astronautics	
Linfeng Wu	Nanjing Univ. of Aeronautics & Astronautics	
15:50-17:50	SunB11.28	
<i>A Method for Extracting the Shock Wave Signal from the Measured Warhead</i>		
Jianjun Peng	Xi'an High Tech Research Institute	
Xuemei Wang	Xi'an High Tech Research Institute	
Zhe Xu	Xi'an High Tech Research Institute	
Zilong Tan	Xi'an High Tech Research Institute	
15:50-17:50	SunB11.29	
<i>Spacecraft Trajectory Forecasting Method based on Induced Ordered Information Aggregation Operator</i>		
Jun Liu	State Key Laboratory of Astronautic Dynamics, Xi'an	
	Xi'an Satellite Control Center	
Hui Yu	State Key Laboratory of Astronautic	
Shuhua Cui	State Key Laboratory of Astronautic Dynamics, Xi'an	
Min Wang	State Key Laboratory of Astronautic Dynamics, Xi'an	
Shaomin Li	State Key Laboratory of Astronautic Dynamics, Xi'an	
15:50-17:50	SunB11.30	
<i>A Comparison of Several Proposed Reliability Analysis Methods Combining Kriging and Monte Carlo Simulation</i>		
Zigan Zhao	National Univ. of Defense Technology	
Zhengming Wang	National Univ. of Defense Technology	
Xiaojun Duan	National Univ. of Defense Technology	
15:50-17:50	SunB11.31	
<i>A Ground Testing System for Magnetic-only ADCS of Nano- Satellites</i>		
Yong Liu	Northwestern Polytechnical Univ.	
Kunpeng Liu	Northwestern Polytechnical Univ.	
Yilan Li	Northwestern Polytechnical Univ.	
Quan Pan	Northwestern Polytechnical Univ.	
Jun Zhang	Northwestern Polytechnical Univ.	
15:50-17:50	SunB11.32	
<i>Adaptive Control for Leader-Following Consensus Problem</i>		
Yue Xu	Nanjing Univ. of Aeronautics & Astronautics	
Ziyang Zhen	Nanjing Univ. of Aeronautics & Astronautics	
Jie Chen	Nanjing Univ. of Aeronautics & Astronautics	
15:50-17:50	SunB11.33	
<i>Precise Angle Control of Polarized-light Navigation Image Sensor Using a Disturbance Observer</i>		
Li Yue	Beihang Univ.	
Jianqiang Qian	Beihang Univ.	
Xiao Zhang	Beihang Univ.	
15:50-17:50	SunB11.34	
<i>Robust Monocular Vision Navigation for Spacecraft On-orbit Service</i>		
Chun Jiang	Nanjing Univ. of Aeronautics & Astronautics	
Yunhua Wu	Nanjing Univ. of Aeronautics & Astronautics	
Linlin Ge	Nanjing Univ. of Aeronautics & Astronautics	
Bing Hua	Nanjing Univ. of Aeronautics & Astronautics	
Feng Yu	Nanjing Univ. of Aeronautics & Astronautics	
Zhiming Chen	Nanjing Univ. of Aeronautics & Astronautics	
15:50-17:50	SunB11.35	
<i>Uncertainty Analysis of Entry Guidance based on Confidence Interval Estimation</i>		
Jiaping Xiao	Beihang Univ.	
Zuojun Shen	Beihang Univ.	
15:50-17:50	SunB11.36	
<i>The Top-level Design Study for the Automatic Carrier Landing</i>		

<i>System</i>		Guofeng Zhang	Beihang Univ.
Keke Lu	Naval Aeronautical and Astronautical Univ.	15:50-17:50	SunB11.44
Jinyong Yu	Naval Aeronautical and Astronautical Univ.	<i>Evaluation of Hypersonic Vehicle SINS Navigation Solution in the Hardware-in-the-Loop Simulation</i>	
Kunhu Kou	Naval Aeronautical and Astronautical Univ.	Kai Chen	Northwestern Polytechnical Univ.
15:50-17:50	SunB11.37	Pengyin Chen	Northwestern Polytechnical Univ.
<i>Optimization of Initial launching Azimuth of Missile under Side Window Detection</i>		Mingxin Liu	Northwestern Polytechnical Univ.
Ying Yu	Northwestern Polytechnical Univ.	15:50-17:50	SunB11.45
Mingshan Hou	Northwestern Polytechnical Univ.	<i>A Pedestrian Dead Reckoning System using SEMG based on Activities Recognition</i>	
Sizhe Zhang	Northwestern Polytechnical Univ.	Nan Gao	Beihang Univ.
Chunwu Yin	Northwestern Polytechnical Univ.	Long Zhao	Beihang Univ.
15:50-17:50	SunB11.38	15:50-17:50	SunB11.46
<i>Design and Development of Equivalent Simulation System</i>		<i>Design and Implementation of Microscopic Star Sensor Software</i>	
Weili Yao	Nanjing Univ. of Aeronautics & Astronautics	Qiang Wang	National Univ. of Defense Technology
Meng Zhang	Nanjing Univ. of Aeronautics & Astronautics	Xin Song	National Univ. of Defense Technology
Lu Wang	Nanjing Univ. of Aeronautics & Astronautics	Yong Zhao	National Univ. of Defense Technology
Yimin Huang	Nanjing Univ. of Aeronautics & Astronautics	15:50-17:50	SunB11.47
15:50-17:50	SunB11.39	<i>Methodology of Multi-group Particle Filter for Robust State Estimation in Nonlinear Dynamic Process Systems</i>	
<i>Modeling of Fingerprint Characteristics of Wireless Communication Channel</i>		Tingting Cao	Wenzhou Univ.
Chunli Jiang	Guangxi Univ. of Science and Technology	Zhengjiang Zhang	Wenzhou Univ.
Zhenglin Li	Guangxi Univ. of Science and Technology	Zhenglin Xu	Wenzhou Univ.
15:50-17:50	SunB11.40	Zhiliang Zhu	Wenzhou Univ.
<i>A Master-slave Cooperative FastSLAM Method of Multi-UAV under Unknown Environment</i>		Zhengbing Yan	Wenzhou Univ.
Jiayue Zhong	Nanjing Univ. of Aeronautics & Astronautics	Chongwei Zheng	Wenzhou Univ.
Congqing Wang	Nanjing Univ. of Aeronautics & Astronautics	15:50-17:50	SunB11.48
Chuying Cong	Nanjing Univ. of Aeronautics & Astronautics	<i>Nonlinear Robust Adaptively SDRE Filtering Method for SINS/SAR Integrated Navigation System</i>	
Zhiyu Li	Nanjing Univ. of Aeronautics & Astronautics	Yi Gao	Xi'an Shiyou Univ.
15:50-17:50	SunB11.41	Yuelong Wang	Xi'an Shiyou Univ.
<i>Performance Analysis and Optimization Design of Dissimilar Redundant Integrated Electro-hydraulic Actuation System</i>		Weibin Cheng	Xi'an Shiyou Univ.
Liming Yu	Beihang Univ.	15:50-17:50	SunB11.49
Yudong Zhang	Beihang Univ.	<i>Tensegrity Robot Dynamic Simulation and Kinetic Strategy Programming</i>	
Zhu Zhang	Beihang Univ.	Changhong Lin	Beihang Univ.
15:50-17:50	SunB11.42	Daiwei Li	Beihang Univ.
<i>Coupling Characterization Analysis and Control System Design of XK-2 Waverider Hypersonic Vehicle</i>		Yongjia Zhao	Beihang Univ.
Feng Li	China Academy of Aerospace Aerodynamics	15:50-17:50	SunB11.50
Chao Wang	China Academy of Aerospace Aerodynamics	<i>Time Series Prediction Methods based on Discrete Input Process Neural Networks and Its Applications</i>	
Ning Zhang	China Academy of Aerospace Aerodynamics	Daofeng Liu	National Univ. of Defense Technology
Guidong Wang	China Academy of Aerospace Aerodynamics	Qiang Huang	National Univ. of Defense Technology
15:50-17:50	SunB11.43	Jianjun Wu	National Univ. of Defense Technology
<i>Real-time Simulation of Airborne FLIR Sensor</i>		15:50-17:50	SunB11.51
Guanfeng Yu	Beihang Univ.	<i>State Estimation of Infrared Target using Particle Filter</i>	
		Zidu Chen	Beihang Univ.
		Xiaoming Liu	Beihang Univ.
		Wanchun Chen	Beihang Univ.
		Tao Zhou	Beihang Univ.
		15:50-17:50	SunB11.52
		<i>Research of GPS/SINS Integrated System based on TMS320C6678</i>	
		Nailong Han	Nanjing Univ. of Science and Technology
		Shuai Chen	Nanjing Univ. of Science and Technology
		Yiping Wang	Nanjing Univ. of Science and Technology
		15:50-17:50	SunB11.53

Lateral Control Law Design for Flying Wing UAV

Dongliang Song	Xi'an Flight Automatic Control Research Institute
Yixuan Zhang	Xi'an Flight Automatic Control Research Institute
Ning Zhang	Xi'an Flight Automatic Control Research Institute
Xiaolong Chen	Xi'an Flight Automatic Control Research Institute
Wen Ma	Xi'an Flight Automatic Control Research Institute
15:50-17:50	SunB11.54

Zhengzhong Wang	Astronautics Science and Technology Aeromechanics Laboratory, CHRDI Beihang Univ.
Weihong Wang	Beihang Univ.
15:50-17:50	SunB11.61

Review of More-Electric Aircrafts

Wei Tian	New Era Engineering Consulting Co. Ltd
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Harmonic Current Detection and Suppression based on Neural Network

Yuan Cui	Guangdong Univ. of Technology
Guanghan Xie	Guangdong Univ. of Technology
Huayang Wang	Guangdong Univ. of Technology
Yanju Yang	Southeast Univ.
15:50-17:50	SunB11.55

Information Flow Simulation Design for Launch Vehicle

Qiang Wu	Beijing Institute of Aerospace System Engineering
Wei Wang	Beihang Univ.
15:50-17:50	SunB11.56

Performance Analysis of Nonlinear Filters Using Dynamic Error Spectrum Metric

Yanhui Mao	Xi'an Shiyou Univ.
Yanjun Chen	Xi'an Shiyou Univ.
Weibin Cheng	Xi'an Shiyou Univ.
Yuelong Wang	Xi'an Shiyou Univ.
15:50-17:50	SunB11.57

A Class of Formation Control of Intelligent Traffic System with Disturbances

Huijin Fan	Huazhong Univ. of Science and Technology
Xin Li	Huazhong Univ. of Science and Technology
Wei Wang	Beihang Univ.
Yongji Wang	Huazhong Univ. of Science and Technology
15:50-17:50	SunB11.58

Research on Chattering Problem of Sliding Mode Variable Structure Control in AC Servo System

Hua Meng	Hebei Univ. of Science and Technology
XiaoHong Zheng	Hebei Univ. of Science and Technology
JianHua Zhang	Hebei Univ. of Science and Technology
15:50-17:50	SunB11.59

Salient Feature Detection for Optical Flow Computation

Jiaoru Yang	Beihang Univ.
Rui Wang	Beihang Univ.
Rui Xu	Tianjin Zhongwei Aerospace Data System Technology Co.Ltd.
15:50-17:50	SunB11.60

L1 Adaptive Output Feedback Controller for Tilt-rotor Aircraft

K. Lu	Science and Technology on Rotorcraft Aeromechanics Laboratory, CHRDI
Chunsheng Liu	Nanjing Univ. of Aeronautics &