



宇航学报

第32卷第2期 2011年2月

目 次

综 述

地球与大气反射光对空间光学传感器探测能力的影响仿真研究 张利强, 苏 康, 郑昌文, 等(233)

飞行器设计与力学

- 非轴对称贮箱液体晃动的等效力学模型 李 青, 马兴瑞, 王天舒(242)
减小导弹超声速大攻角斜吹力矩的边条布局及其原理分析 龚安龙, 周伟江, 纪楚群(250)
偏航机动飞行时的壁板颤振问题及优化设计 王晓庆, 韩景龙, 贾海玮(255)
Kevlar 层合板超高速撞击数值建模及参数识别 刘滨涛, 贾光辉, 黄 海(261)
月球探测器着陆冲击试验及关键技术研究(英文) 张则梅, 聂 宏, 陈金宝, 等(267)

制导、导航与控制

- 基于三阶解析解的小行星平衡点附近 halo 轨道确定方法研究 张振江, 崔祜涛, 崔平远(277)
带配平翼月球返回舱跳跃再入轨迹优化设计 王 银, 陆宇平, 张崇峰(284)
轨道机动时考虑延迟的卫星姿态稳定控制方法 张 刎, 胡 军(290)
高超声速飞行器上升段最优制导间接法研究 李惠峰, 李昭莹(297)
考虑推进和气动弹性影响的高超飞行器的建模与控制 曲 鑫, 李菁菁, 宋 劍, 等(303)
导弹直接侧向力与气动力复合控制设计与实现 马克茂, 赵 辉, 张德成(310)
基于动态逆和鲁棒轨迹跟踪控制的导弹控制系统设计 杨志峰, 雷虎民, 李庆良, 等(317)
基于观测器的航天器执行机构失效故障重构 肖 冰, 胡庆雷, 马广富(323)
控制受限柔性航天器姿态机动内闭环成形控制 孔宪仁, 杨正贤, 董晓光, 等(329)
基于 MRP/NPUPF 的地磁/加速度计测量的姿态估计新方法 郭 庆, 魏瑞轩, 许 洁, 等(336)
多普勒辅助测量 IMM-PF 机动目标跟踪 蒋 蔚, 伊国兴, 曾庆双(343)
基于分层的 SVDDBN 的空间作战决策研究 楚 昊, 高晓光(349)
欠驱动刚性航天器可行轨迹生成算法研究(英文) 马广富, 庄宇飞, 李传江, 等(355)

电子信息

- 弱太阳闪烁中深空探测信道的自适应控制 胡圣波, 孟 新, 赵 娜(361)
基于分布式信源编码和感兴趣区域编码的干涉多光谱图像压缩(英文) 孔繁锵, 吴宪云(367)

- 高光谱图像融合最佳波段选择方法 郭雷, 常威威, 付朝阳(374)
基于 Walsh-Hadamard 投影的快速 Nonlocal-Means 图像去噪 张志, 王润生(380)
基于双基地 ISAR 的极坐标格式算法及其改进算法 朱小鹏, 张群, 李宏伟(388)
双基地 SAR 的 QBP 成像算法 徐三元, 王建国(395)
基于末制导雷达的海面舰船 ISAR 成像转角分析 任艳, 杜琳琳, 陈曾平(401)
非平衡状态下星载三维激光雷达图像畸变研究 蔡银桥, 童小华, 卜弘毅, 等(407)
一种基于反向探测的低轨星座路由算法 晏坚, 王京林, 曹志刚(414)
一种新的辐射源优化识别方法 林云, 司锡才(420)
直线阵频带内的辐射和散射特性分析 凌劲, 龚书喜, 张帅, 等(428)

材料、结构与制造

- 发汗式主动冷却金属热防护系统主动冷却效率研究 刘双, 张博明(433)

环境试验和器件

- 面向卫星追踪平台的容错纠错策略与算法研究 陈晓东, 范守文, 熊静琪(439)
基于虚拟夹具的交互式空间机器人遥操作实验 张斌, 黄攀峰, 刘正雄, 等(446)
STP 热光伏发电的方案设计与性能分析 戴贵龙, 夏新林, 孙创(451)

期刊基本参数:CN11-2053/V * 1980 * b * A4 * 228 * zh * P * ¥60.00 * 1000 * 34 * 2011-02

JOURNAL OF ASTRONAUTICS

Vol. 32 No. 2 2011

CONTENTS

Comprehensive Review

- Research on Simulation for Influence of Earth and Atmosphere Reflected Light on Detect Ability of Space Optical Sensor
..... ZHANG Li-qiang, SU Kang, ZHENG Chang-wen, et al (233)

Flight Vehicle Design and Mechanics

- Equivalent Mechanical Model for Liquid Sloshing in Non-Axisymmetric Tanks LI Qing, MA Xing-rui, WANG Tian-shu (242)
A Finned Configuration to Reduce Rolling Moment in Oblique Flows at Supersonic Speed and High Angle of Attack and Principle Analysis of Its Action GONG An-long, ZHOU Wei-jiang, JI Chu-qun (250)
Problem with Panel Flutter and Its Optimization Design in Yaw Maneuver Flight
..... WANG Xiao-qing, HAN Jing-long, YUN Hai-wei (255)
Numerical Modeling and Parameter Identification for Kevlar Laminate Under the Condition of Hypervelocity Impact
..... LIU Bin-tao, JIA Guang-hui, HUANG Hai (261)
Investigation on the Landing-Impact Tests of the Lunar Lander and the Key Technologies
..... ZHANG Ze-mei, NIE Hong, CHEN Jin-bao, et al (267)

GNC

- Research on Third-Order Analytical Solution Determination of Halo Orbits around Equilibrium Point of Asteroid
..... ZHANG Zhen-jiang, CUI Hu-tao, CUI Ping-yuan (277)
Skip-Entry Trajectory Optimization Design for Lunar Return Vehicle with Trim-Flaps
..... WANG Yin, LU Yu-ping, ZHANG Chong-feng (284)
Satellite Attitude Stabilization with Time Delay during Orbital Maneuver ZHANG Zhao, HU Jun (290)
Indirect Method of Optimal Ascent Guidance for Hypersonic Vehicle LI Hui-feng, LI Zhao-ying (297)
Modeling and Robust Coupled Control of Air-Breathing Hypersonic Vehicle Considering Propulsion and Aeroelastic Effects
..... QU Xin, LI Jing-jing, SONG Xun, et al (303)
Control Design and Implementation for Missiles with Blended Lateral Jets and Aerodynamic Control Systems
..... MA Ke-mao, ZHAO Hui, ZHANG De-cheng (310)
A Missile Control System Design Approach Based on Dynamic Inverse and Robust Trajectory Tracking Control
..... YANG Zhi-feng, LEI Hu-min, LI Qing-liang, et al (317)
Observer Based Fault Reconstruction for Spacecraft Under Loss of Actuator Effectiveness
..... XIAO Bing, HU Qing-lei, MA Guang-fu (323)
Closed-Loop Signal Shaping Attitude Maneuvering Control for Flexible Spacecraft Subject to Actuator Saturation
..... KONG Xian-ren, YANG Zheng-xian, DONG Xiao-guang, et al (329)
A New Method for Attitude Estimation in Magnetometer and Accelerometer Attitude System Based on MRPs and NPUPF
..... GUO Qing, WEI Rui-xuan, XU Jie, et al (336)
Maneuvering Target Tracking Using IMM-PF with Doppler-Aided Measurement
..... JIANG Wei, YI Guo-xing, ZENG Qing-shuang (343)
Decision-Making Method for Space-Based Combat Based on Hierarchical Structure Varied Discrete Dynamic Bayesian Network
..... FAN Hao, GAO Xiao-guang (349)

Feasible Trajectory Generation of an Underactuated Rigid Spacecraft	MA Guang-fu, ZHUANG Yu-fei, LI Chuan-jiang, <i>et al</i> (355)
---	--

Electronic and Information Engineering

Adaptive Control of Communication Channel for Deep Space Exploration under Weak Solar Scintillation	HU Sheng-bo, MENG Xin, ZHAO Na (361)
An Improved Distributed Source Coding and ROI Coding-Based Interferometric Multi-Spectral Image Compression Algorithm	KONG Fan-qiang, WU Xian-yun (367)
Band Selection of Optimal for Hyperspectral Image Fusion	GUO Lei, CHANG Wei-wei, FU Chao-yang (374)
Fast Nonlocal-Means Image Denoising Method Based on Walsh-Hadamard Projection	ZHANG Zhi, WANG Run-sheng (380)
Bistatic-ISAR Based Polar Format Algorithm and Its Improved Algorithm	ZHU Xiao-peng, ZHANG Qun, LI Hong-wei (388)
QBP Imaging Algorithm for the Bistatic SAR	XU San-yuan, WANG Jian-guo (395)
Analysis of Rotation Angle Condition in Ship Target ISAR Imaging Based on Terminally Guided Missile-Borne Radar	REN Yan, DU Lin-lin, CHEN Zeng-ping (401)
Study on Image Deformation of Spaceborne Three-Dimentional LIDAR Imaging in Non-Equilibrium State	CAI Yin-qiao, TONG Xiao-hua, BU Hong-yi, <i>et al</i> (407)
A Reverse Detection Based Routing Algorithm in LEO Satellite Constellation Networks	YAN Jian, WANG Jing-lin, CAO Zhi-gang (414)
A New Optimization Recognition Method for Radiation Source	LIN Yun, Si Xi-cai (420)
Analysis of Radiation and Scattering Characteristics of Linear Array in the Operating Band	LING Jin, GONG Shu-xi, ZHANG Shuai, <i>et al</i> (428)

Materials, Structure and Manufacturing

Investigation on Transpiration Active Cooling Metallic Thermal Protection Systems	LIU Shuang, ZHANG Bo-ming (433)
---	---------------------------------

Environmental Test and Device

Research on Satellite Tracking Platform-Oriented Fault Tolerant and Fault Rectificative Strategy and Its Reconfiguration Algorithm	CHEN Xiao-dong, FAN Shou-wen, XIONG Jing-qi (439)
An Interactive Space Robot Teleoperation Experiment Based on Virtual Fixtures	ZHANG Bin, HUANG Pan-feng, LIU Zheng-xiong, <i>et al</i> (446)
Concept Design and Performance Analysis for TPV System of Solar Thermal Propulsion	DAI Gui-long, XIA Xin-lin, SUN Chuang (451)