

深空探测学报(季刊)

第3卷 第1期 2016年1月

目次

综 述

深空探测太阳能电池阵应用及关键技术分析····· 张建琴, 徐建明, 贾巍, 等 (3)

专题: 小行星探测

近地小行星威胁与防御研究现状····· 马鹏斌, 宝音贺西 (10)

从日地系统 L2 出发借力月球飞越近地小行星 ····· 何胜茂, 彭超, 高扬 (18)

不规则小天体引力场内的广义甩摆轨道····· 曾祥远, 李俊峰, 刘向东 (29)

一种利用非均质多面体模型确定小行星附近引力场的方法····· 杨墨, 龚胜平 (34)

基于 433 Eros 的多面体引力模型精度与运行时间研究····· 肖尧, 阮晓钢, 魏若岩 (41)

利用绳系太阳帆减缓小行星自转的技术研究····· 邬静云, 高有涛 (47)

基于伪谱法的小天体最优下降轨迹优化方法····· 袁旭, 朱圣英 (51)

论 文

地月转移自由返回轨道偏差传播分析····· 彭祺擘, 贺波勇, 张海联 (56)

火星着陆器的大气进入段有限时间抗干扰制导律设计····· 闫晓鹏, 孙海滨, 郭雷 (61)

地外天体潜入式探测典型案例分析及展望····· 姜生元, 朴松杰, 张伟伟, 等 (68)

深空环境下热防护材料的研究及应用进展····· 张鹏飞, 梁龙, 陶积柏, 等 (77)

利用 Breakwell 间距比法制定行星际探测中途修正策略 ····· 倪彦硕, 施伟璜, 杨洪伟, 等 (83)

基于鲁棒协同控制方法的多航天器交会问题····· 张卓, 张泽旭, 谭浩 (90)

期刊基本参数: CN 10-1155/V * 2014 * q * A4 * 96 * zh * P * ¥30.00 * 2000 * 14 * 2016-01

Journal of Deep Space Exploration

Vol. 3 No. 1 (January, 2016)

CONTENTS

Review

- Application of Solar Array and Analysis of Key Technologies in
Deep Space Exploration ZHANG Jianqin, XU Jianming, JIA Wei, et al (3)

Topic: Asteroid Exploration

- Research Status of the Near-Earth Asteroids's
Hazard and Mitigation MA Pengbin, BAOYIN Hexi (10)
- Near-Earth Asteroid Flyby Trajectories from the
Sun-Earth L2 via Lunar Gravity Assist HE Shengmao, PENG Chao, GAO Yang (18)
- Generalized Flyby Trajectories over Irregular-Shaped
Small Bodies ZENG Xiangyuan, LI Junfeng, LIU Xiangdong (29)
- Analysis of the Potential Field of Asteroids with Arbitrary Mass Distribution
Using Polyhedral Approach YANG Mo, GONG Shengping (34)
- Research on the Accuracy and Operation Time of Polyhedron Gravity Model Base on
433 Eros XIAO Yao, RUAN Xiaogang, WEI Ruoyan (41)
- Research on the Technology of Slowing Down the Rotation of an Asteroid
with a Tethered Solar Sail WU Jingyun, GAO Youtao (47)
- Small Body Descent Trajectory Optimization Based
on Pseudospectral Method YUAN Xu, ZHU Shengying (51)

Article

- Analysis of Deviation Propagation for Translunar
Free Return Orbit PENG Qibo, HE Boyong, ZHANG Hailian (56)
- Finite Time Anti-Disturbance Guidance Law Design for
Mars Entry YAN Xiaopeng, SUN Haibin, GUO Lei (61)
- Typical Cases Analysis and Prospects for Extraterrestrial Subsurface
Boring Exploration JIANG Shengyuan, PIAO Songjie, ZHANG Weiwei, et al (68)
- Research and Development of Thermal Protection Materials Applied in Deep
Space Exploration ZHANG Pengfei, LIANG Long, TAO Jibai, et al (77)
- Midcourse Correction Strategy of Interplanetary Exploration with Breakwell Spacing
Ratio Method NI Yanshuo, SHI Weihuang, YANG Hongwei, et al (83)
- Robust Coordination Control for Multi-Spacecraft
Rendezvous Problems ZHANG Zhuo, ZHANG Zexu, TAN Hao (90)