



研究论文

空间物理

一行星际与磁层

- 基于 ACE 飞船观测的银河宇宙线与太阳风变化的统计研究 郭孝城 曹世豪 熊明 (969)
三维 MHD 背景场下太阳高能粒子平均自由程模拟 王尚洁 魏稳稳 刘佑生 朱雨及 沈芳 (980)
弓激波模型的对比 周悦 吕建永 王明 袁换只 (990)
地球磁层亚暴统计分析 李世友 谢蓉 肖扬 (1000)

一电离层与中高层大气

- 磁暴期间中国中低纬电离层不规则体与扰动分析 梅登奎 闻德保 (1007)
利用聚类算法区分小尺度电离层行扰事件与赤道等离子体泡事件 汪领 尹凡 (1014)
实时电离层格网数据精度评估 赵金生 (1024)
利用掩星温度数据推算大气月平均纬向风场 杜晓勇 杜智涛 郭粤宁 符养 (1030)
氧气 A(0, 0) 波段气辉体发射率和临边辐射强度模拟与分析 杨晓君 王后茂 王咏梅 (1039)
基于 HITRAN 数据库的大气激光雷达信号仿真 崔洪鲁 闫召爱 张炳炎 郭文杰 胡雄 (1046)

微重力科学

- 低温射流抑制空间液氢储罐温度分层的数值研究 郭斌 赵建福 李凯 胡文瑞 (1052)
基于 Surface Evolver 的推进剂贮箱气液界面分析 姜志杰 吴宗谕 刘常青 黄奕勇 韩伟 (1066)

空间探测技术

- Polar 卫星在低高度时表面正高电位的统计研究 何语璇 刘勇 张强 (1074)
空间碎片天基监测图像仿真研究 夏胜夫 陈俊宇 雷祥旭 桑吉章 (1084)
运用信息融合式高阶 UKF 的微小卫星姿态确定算法
..... 张贺 秦伟伟 周城 宋恒辛 华玉峰 王宇 (1091)
基于单纯形法的 TLE 轨道确定 刘劲宏 桑吉章 刘宏康 (1102)
基于目标特性的航天器太阳光压面积计算方法 韩意 陈明 段成林 欧阳琦 (1109)
天基激光测距载荷单反射镜组件柔性设计与力热稳定性分析
..... 柳鸣 李振伟 李响 康喆 韩琳楚 刘永志 (1117)
基于有限差分法的双臂关节柔性空间机器人智能递阶控制策略 梁捷 秦开宇 (1125)
第 40 卷研究论文总目次 (1135)

Research Articles**Space Physics**

—Interplanetary and Magnetospheric Physics

Statistical Investigation on the Galactic Cosmic Rays and Solar Wind Variation Based on ACE Observations

GUO Xiaocheng CAO Shihao XIONG Ming (969)

Simulation of Mean Free Path of Solar Energetic Particles in Three-dimensional MHD Background

WANG Shangjie WEI Wenwen LIU Yousheng ZHU Yuji SHEN Fang (980)

Comparative Study of Bow Shock Models ZHOU Yue LÜ Jianyong WANG Ming YUAN Huanzhi (990)

Statistical Study on the Geomagnetic Substorm LI Shiyou XIE Rong XIAO Yang (1000)

—Ionospheric, Middle and Upper Atmospheric Physics

Analysis of Ionospheric Irregularities and Disturbances at Middle and Low Latitudes in China during the Magnetic Storm

MEI Dengkui WEN Debao (1007)

Distinguish Small-scale Traveling Ionospheric Disturbances and Equatorial Plasma Bubbles by Clustering Algorithm

WANG Ling YIN Fan (1014)

Assessment of Ionospheric Real-time Data ZHAO Jinsheng (1024)

Research of Monthly Zonal Winds Derived from Radio Occultation Temperature Data

DU Xiaoyong DU Zhitao GUO Yuening FU Yang (1030)

Simulation and Analysis on Volume Emission Rate and Limb Radiation Intensity of Airglow at Oxygen A(0, 0) Band

YANG Xiaojun WANG Houmao WANG Yongmei (1039)

Research on Atmospheric Lidar Signal Simulation Based on HITRAN Database

CUI Honglu YAN Zhaoai ZHANG Bingyan GUO Wenjie HU Xiong (1046)

Microgravity Science

Destratification in Hydrogen Propellant Tank in Space by Jet Injection

GUO Bin ZHAO Jianfu LI Kai HU Wenrui (1052)

Liquid-gas Interface Analysis of Propellant Tank Based on Surface Evolver

JIANG Zhijie WU Zongyu LIU Changqing HUANG Yiyong HAN Wei (1066)

Space Exploration Technology

Statistical Study on the Positive High Potential of Polar Satellite at Low Altitude

HE Yuxuan LIU Yong ZHANG Qiang (1074)

Research on Image Simulation for Space-based Space Debris Surveillance

XIA Shengfu CHEN Junyu LEI Xiangxu SANG Jizhang (1084)

Attitude Determination Algorithm for Micro-satellite Based on High-order UKF Using Information Fusion

ZHANG He QIN Weiwei ZHOU Cheng SONG Hengxin HUA Yufeng WANG Yu (1091)

TLE Orbital Determination Based on Simplex Method LIU Jinghong SANG Jizhang LIU Hongkang (1102)

Calculation Method of Spacecraft Solar Pressure Area Based on Target Characteristics

HAN Yi CHEN Ming DUAN Chenglin OUYANG Qi (1109)

Flexible Design and Thermal Stability Analysis of Reflector Assembly of Space-based Laser Ranging Load

LIU Ming LI Zhenwei LI Xiang KANG Zhe HAN Linchu LIU Yongzhi (1117)

Influence of Intelligent Hierarchical Control for Flexible-joint Dual-arm Space Robot Based on Finite Difference Method

LIANG Jie QIN Kaiyu (1125)