

前沿动态

NASA 2024—2025 年度进展、成果与挑战 范唯唯, 韩淋, 王海名, 杨帆 (567)

研究论文

空间物理

外日球层行星际激波特性与离子加速 刘思哲, 杨忠炜, 吴明雨, 李晖, 张铁龙 (575)

基于相位编组与多级阈值的太阳射电 III 型暴自动检测算法 张洪瑞, 董亮, 何乐生, 黄文耿,
王晶, ZAINAL ABIDIN Zamri Bin, 杨凤辉, RAZAK Dalilah Nur Fathiah Bintin Hanim, 高冠男 (592)

Deep Learning Kp Computational Prediction Combined Multimodal Data of Solar Wind and EUV Images
..... GUO Dalei, LI Xiaokun, XUE Bingsen (604)

2013 年 7 月 13—14 日磁暴期间中国低纬电离层不均匀体的时空演化
..... 高鸿宇, 张东和, 张雅彬, 田耀宇, 李科 (618)

基于残差补偿 WHO-RF 模型的电离层不规则体预测
..... 陈清燕, 纪元法, 孙希延, 梁文斌, GHAZALI Kamarul Hawari Bin (628)

基于深度学习的中国区域电离层 f_oF_2 短期预报方法
..... 欧明, 郭雅苹, 王芬, 王海宁, 韩超, 朱庆林, 甄卫民 (639)

基于子午工程气辉成像观测的中高层大气波动智能识别及关键参数提取 赖昌, 汪鹏超, 李钦增 (650)

空间天文

南极球载天文观测
..... 周江华, 程骏飞, 蔡榕, 刘继峰, 杨燕初, 甘庆波, 闫代康, 黄宛宁, 李一健, 卢莹, 崔宇轩 (658)

行星科学

行星半径对类金星行星氧离子逃逸比例长期演化的影响 王鑫珂, 李海涛 (681)

空间地球科学

风云气象卫星与商业卫星的掩星分布与协同观测
..... 鲁文强, 陈冉, 徐娜, 孟祥广, 廖蜜, 刘艳, 唐琪, 程艳, 杨光林, 胡秀清, 赵现纲, 孙越强 (692)

Ka 波段星载海面散射回波多普勒谱分析与质心估计 于淼淼, 朱迪, 董晓龙, 张敬钰 (707)

基于卫星遥感的海浪斜率方差验证与差异原因分析 郎姝燕, 胡晔平, 李秀仲, 李雨阳, 赵新华 (718)

微重力与空间生命科学

微重力下基于流体相场的质子交换膜电解槽气泡行为与能量效率仿真
..... 沈鑫华, 王进, 蓝鼎, 翟思涵, 陈浩 (726)

基于人体生物力学阻抗辨识的月面建造远程变阻抗控制 冯籽越, 莫臻极, 赵嘉龙, 郑博, 袁帅 (735)

面向空间站货舱的果蔬精准检测方法 李文琴, 随婷婷, 张璋, 吴会英, 常亮 (749)

空间探测技术

基于长短期记忆网络的两行根数高精度轨道合成·····胡开辉,陈俊宇,林初森,李梓杰,吴尧,文章义 (762)

太赫兹空间探测系统中混合网络型宽带双工器技术 ·····丁江乔,蒋深舟,成加森,蒋露颖,朱皓天 (776)

面向深空探测耐极端环境的新型宽温域钠固态电池 ·····杨偲赓,李宗佑,张建国,于琪瑶 (785)

磁通门传感器开环测量温漂特性 ·····蒋娇,周斌 (795)

面向天基频谱感知的动态信道化设计方法 ·····饶嘉成,黄永辉,周莉 (805)

面向空间应用的10 THz焦平面成像系统冷光学设计 ·····李家辉,马跃学,朱皓天,全加,刘子尧 (817)

一种用于CCSDS凿孔卷积码的最大后验概率译码算法 ·····顾雪晨,范亚楠,闫毅,李雪,姚秀娟 (827)

- 数据论文 -

月球阿波罗与嫦娥任务10个典型着陆区撞击坑数据库:小撞击坑数据库构建与分布规律·····
·····刘方超,张立,郭弟均,刘斌,谢彬,吕英波,陈剑,凌宗成 (836)

卫星测高重力与船测重力协同融合的全球高分辨率海洋重力场模型 ·····刘乾坤,陈兆钰,许可 (850)

Research and Agency Updates

NASA 2024—2025 in Review: Progress, Accomplishments and Challenges
.....*FAN Weiwei, HAN Lin, WANG Haiming, YANG Fan* (567)

Research Articles

Space Physics

Characteristics of Outer Heliospheric Interplanetary Shocks and Ion Acceleration
.....*LIU Sizhe, YANG Zhongwei, WU Mingyu, LI Hui, ZHANG Tielong* (575)

Automated Detection Method for Solar Radio Type III Bursts Using Phase Clustering and Hierarchical
Thresholding*ZHANG Hongrui, DONG Liang, HE Lesheng, HUANG Wengeng, WANG Jing,*
ZAINAL ABIDIN Zamri Bin, YANG Fenghui, RAZAK Dalilah Nur Fathiah Bintin Hanim, GAO Guannan (592)

Deep Learning Kp Computational Prediction Combined Multimodal Data of Solar Wind and EUV Images
.....*GUO Dalei, LI Xiaokun, XUE Bingsen* (604)

Case of the Ionospheric Irregularities in China Low Latitude during the Geomagnetic Storm on 13—14 July
2013*GAO Hongyu, ZHANG Donghe, ZHANG Yabin, TIAN Yaoyu, LI Ke* (618)

Prediction of the Ionospheric Irregularities Based on Residual Compensation WHO-RF Model
.....*CHEN Qingyan, JI Yuanfa, SUN Xiyan, LIANG Wenbin, GHAZALI Kamarul Hawari Bin* (628)

Short-term Forecasting Method of f_0F_2 in the Ionosphere over China Based on Deep Learning
.....*OU Ming, GUO Yaping, WANG Fen, WANG Haining, HAN Chao, ZHU Qinglin, ZHEN Weimin* (639)

Intelligent Identification and Key Parameter Extraction of Middle and Upper Atmospheric Disturbances Based
on All-sky Airglow Imaging Observations of the Chinese Meridian Project.....
.....*LAI Chang, WANG Pengchao, LI Qinzeng* (650)

Space Astronomy

Balloon-borne Astronomical Observations in Antarctica ...*ZHOU Jianghua, CHENG Junfei, CAI Rong, LIU Jifeng,*
.....*YANG Yanchu, GAN Qingbo, YAN Daikang, HUANG Wanning, LI Yijian, LU Ying, CUI Yuxuan* (658)

Planetary Science

Effects of Planet Radius on Long-term Evolution of Oxygen Ion Escape Proportion in Venus-like Planets ...
.....*WANG Xinke, LI Haitao* (681)

Space Earth Science

Occultation Distribution and Collaborative Observations of Fengyun Meteorological Satellites and Commercial
Satellites*LU Wenqiang, CHEN Ran, XU Na, MENG Xiangguang, LIAO Mi,*
LIU Yan, TANG Qi, CHENG Yan, YANG Guanglin, HU Xiuqing, ZHAO Xiangang, SUN Yueqiang (692)

Doppler Spectrum Analysis and Centroid Estimation of Ka-band Spaceborne Sea Surface Scatter Echoes
.....*YU Miaomiao, ZHU Di, DONG Xiaolong, ZHANG Jingyu* (707)

Validation and Discrepancy Analysis of Sea Surface Mean Square Slope Measured by SWIM and CYGNSS
.....*LANG Shuyan, HU Weiping, LI Xiuzhong, LI Yuyang, ZHAO Xinhua* (718)

Microgravity and Space Life Science

Simulation of Bubble Behavior and Energy Efficiency in Proton Exchange Membrane Electrolyzers based
on Fluid Phase Field under Microgravity Conditions
.....*SHEN Xinhua, WANG Jin, LAN Ding, ZHAI Sihan, CHEN Hao* (726)

Teleimpedance Control for Lunar Construction Based on Biomechanical Impedance Identification of Human
Body*FENG Ziyue, MO Zhenji, ZHAO Jialong, ZHENG Bo, YUAN Shuai* (735)

An Accurate Detection Method for Fruits and Vegetables in the Space Station Cargo Bay.....
.....*LI Wenqin, SUI Tingting, ZHANG Zhang, WU Huiying, CHANG Liang* (749)

Space Exploration Technology

High-precision Orbit Synthesis of Two-line Elements Based on Long Short-term Memory Network
.....*HU Kaihui, CHEN Junyu, LIN Chusen, LI Zijie, WU Yao, WEN Zhangyi* (762)

Hybrid Network Based Broadband Diplexer Technology for Terahertz Space Exploration Systems
.....*DING Jiangqiao, JIANG Shenzhou, CHENG Jiasen, JIANG Luying, ZHU Haotian* (776)

A Wide Temperature Range Sodium Solid-state Battery Resistant to Extreme Environments for Deep Space
Exploration*YANG Caizhen, LI Zongyou, ZHANG Jianguo, YU Qiyao* (785)

Temperature Drift Performance of Fluxgate Sensor with Open-loop Measurement.....
.....*JIANG Jiao, ZHOU Bin* (795)

Design Method of Dynamic Channelization for Space-based Spectrum Sensing
.....*RAO Jiacheng, HUANG Yonghui, ZHOU Li* (805)

Cold Optical Design of 10 THz Focal Plane Imaging System for Space Applications
.....*LI Jiahui, MA Yuexue, ZHU Haotian, QUAN Jia, LIU Ziyao* (817)

A Maximum A-posteriori Probability Decoding Algorithm for the CCSDS Punctured Convolutional Codes
.....*GU Xuechen, FAN Yanan, YAN Yi, LI Xue, YAO Xiujuan* (827)

– Science Data Papers –

Impact Crater Database of 10 Landing Regions from Apollo and Chang'E Missions: Construction and
Distribution Patterns of Small Impact Crater Databases
.....*LIU Fangchao, ZHANG Li, GUO Dijun, LIU Bin, XIE Bin, LÜ Yingbo, CHEN Jian, LING Zongcheng* (836)

Global High-resolution Marine Gravity Field Model Fused from Altimetry-derived Gravity and Shipborne
Gravity*LIU Qiankun, CHEN Zhaoyu, XU Ke* (850)