RESEARCH ARTICLES

PLANETARY SCIENCES

1  LongKang Dai, Jun Cui, DanDan Niu, Hao Gu, YuTian Cao, XiaoShu Wu, and HaiRong Lai
   Is Solar Wind electron precipitation a source of neutral heating in the nightside Martian upper atmosphere? (doi: 10.26464/epp2021012)

11 Chi-Fong Wong, Kim-Chiu Chow, Kwong L. Chan, Jing Xiao, and Yemeng Wang
   Some features of effective radius and variance of dust particles in numerical simulations of the dust climate on Mars (doi: 10.26464/epp2021005)

SPACE PHYSICS

19 YiRen Chang, ZhiYong Xiao, YiChen Wang, ChunYu Ding, Jun Cui, and YuZhen Cai
   An updated constraint on the local stratigraphy at the Chang’E-4 landing site (doi: 10.26464/epp2021007)

32 ZuXiang Xue, ZhiGang Yuan, XiongDong Yu, ShiYong Huang, and Zheng Qiao
   Formation of the mass density peak at the magnetospheric equator triggered by EMIC waves (doi: 10.26464/epp2021008)

42 ShuCan Ge, HaiLong Li, Bin Xu, Tong Xu, Lin Meng, MaoYan Wang, Abdel Hannachi, MengYan Zhu, Lina Broman, Safi Ullah, and Abdur Rauf
   Characteristic analysis of layered PMSEs measured with different elevation angles at VHF based on an experimental case (doi: 10.26464/epp2021001)

52 KeDeng Zhang, Hui Wang, WenBin Wang, Jing Liu, ShunRong Zhang, and Cheng Sheng
   Nighttime meridional neutral wind responses to SAPS simulated by the TIEGCM: A universal time effect (doi: 10.26464/epp2021004)

63 ShuTao Yao, ZongShun Yue, QuanQi Shi, Alexander William Degeling, HuiShan Fu, AnMin Tian, Hui Zhang, Andrew Vu, RuiLing Guo, ZhongHua Yao, Ji Liu, Qiu-Gang Zong, XuZhi Zhou, JingHua Li, WenYa Li, HongQiao Hu, YangYang Liu, and WeiJie Sun
   Statistical properties of kinetic-scale magnetic holes in terrestrial space (doi: 10.26464/epp2021011)

73 GuangXing Ding, JiaWei Li, XiaoXin Zhang, Fei He, LingPing He, KeFei Song, Liang Sun, Shuang Dai, Shijie Liu, Bo Chen, Chao Yu, XiuQing Hu, SongYan Gu, ZhongDong Yang, and Peng Zhang
   Wide-field aurora imager onboard Fengyun satellite: Data products and validation (doi: 10.26464/epp2021003)

ATMOSPHERIC PHYSICS

79 GuoChun Shi, Xiong Hu, ZhiGang Yao, WenJie Guo, MingChen Sun, and XiaoYan Gong
   Case study on stratospheric and mesospheric concentric gravity waves generated by deep convection (doi: 10.26464/epp2021002)
SOLID EARTH

90  
Jie Dong, Gabriele Cambiotti, HanJiang Wen, Roberto Sabadini, and WenKe Sun  
Treatment of discontinuities inside Earth models: Effects on computed coseismic deformations  
(doi: 10.26464/epp2021010)

105  
YuMei He, LianXing Wen, and Yann Capdeville  
Morphology and possible origins of the Perm anomaly in the lowermost mantle of Earth  
(doi: 10.26464/epp2021009)

REPORT

SPACE PHYSICS

117  
Hui Li, and Jian Wu  
Dielectric permittivity of dusty plasma in the Earth’s mesosphere  
(doi: 10.26464/epp2021006)

NEWS

121  
Chinese Geoscience Union Annual Meeting Organizing Committee  
Annual Meeting minutes of the Chinese Geoscience Union, 2020  
(doi: 10.26464/epp2021013)

COVER

In Yao ST and Shi QQ et al. (doi: 10.26464/epp2021011), small scale magnetic holes are closely related to energy conversion, particle acceleration, wave-particle interactions, magnetic reconnection, and turbulence at the kinetic-scale. However, their source, generation, and characteristics in near-Earth space are still unclear. This study finds that most of the KSMHs (Kinetic-scale magnetic holes) are generated locally in the magnetosheath, rather than with the solar wind. This study also indicates a relationship between the magnetic holes and turbulent plasma, and shows global distributions of the KSMHs's occurrence rate, amplitude, and temporal-spatio scales. See pages 63-72.