

Academic Staff Resume

Name: Xiaojun Xu

Title: Assistant Professor

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Academic Qualification:

Ph.D (2006-2011)	Space Physics	National Space Science Center, Chinese Academy of Sciences
Bachelor (2002-2006)	Space Physics	University of Science and Technology of China

Teaching Area

Space plasma

Planetary Space Physics

Research Area

Solar wind magnetic reconnection

Lunar plasma environment

Planetary space physics

Working Experience

2015.09-present	Assistant Professor	Macau University of Science and Technology
2013.09-2015.08	PostDoctor	Macau University of Science and Technology
2011.09-2013.08	Associate Professor	Nanchang University

Academic Publication

Journal Articles (First/Corresponding author)

- 1 J. Wang, L. C. Lee, **X. Xu (Corr*)**, J. B. Cao, J. Yu, Q. Chang, Q. Xu and J. Xu, Plasma and Magnetic Field Structures Near Martian Induced Magnetosphere Boundary: I. Plasma Depletion Region and Tangential Discontinuity, **Astronomy&Astrophysics**, accepted, 2020.
- 2 Qing Chang, **Xiaojun Xu (Corr*)**, Qi Xu, Jing Wang, Jiaying Xu, Yudong Ye, and Tielong Zhang, The Demagnetization of the Venusian Ionosphere Under Nearly Flow-aligned Interplanetary Magnetic Fields, **Astrophys. J.**, accepted, 2020.
- 3 Jiaying Xu, **Xiaojun Xu (Corr*)**, Jing Wang, Yudong Ye, Qing Chang, and Qi Xu, The Relaxation of Reconnected Open Magnetic Field Lines in the Earth's Magnetosphere, **Astrophys. J.**, accepted, 2020.
- 4 Qi Xu, **Xiaojun Xu (Corr*)**, Qing Chang, Jiaying Xu, Jing Wang, Yudong Ye, An ICME impact on the Martian hydrogen corona, **Earth and Planetary Physics**, 4(1), 38-44, 2020.
- 5 Jing Wang, **Xiaojun Xu (Corr*)**, Jiang Yu, and Yudong Ye, South-north asymmetry of proton density distribution in the Martian magnetosheath, **Earth and Planetary Physics**, 4(1), 32-37, 2020.

- 6 Qing Chang, **Xiaojun Xu (Corr*)**, Qi Xu, Jun Zhong, Jiaying Xu, Jing Wang, Tielong Zhang, Multiple-point modeling the Parker spiral configuration of the solar wind magnetic field at the solar maximum of Solar Cycle 24, **Astrophys. J.**, 884, 102, 2019.
- 7 **Xiaojun Xu**, Qi Xu, Qing Chang, Jiaying Xu, Jing Wang, Yi Wang, Pingbing Zuo, and Vassilis Angelopoulos, ARTEMIS Observations of Well-structured Lunar Wake in Subsonic Plasma Flow, **Astrophys. J.**, 881, 76, 2019.
- 8 Qi Xu, **Xiaojun Xu (Corr*)**, Qing Chang, Zhaojin Rong, Jing Wang, Jiaying Xu, and Tielong Zhang, Observations of the Venus Dramatic Response to an Extremely Strong Interplanetary Coronal Mass Ejection, **Astrophys. J.** 876, 84, 2019.
- 9 Qing Chang, **Xiaojun Xu (Corr*)**, Tielong Zhang, Lihui Chai, Yong Wei, Magnetic field near Venus: comparison between 24 and previous solar cycles, **Astrophys. J.** 867:129, 2018.
- 10 **Xiaojun Xu**, Qing Chang, Qi Xu, Vassilis Angelopoulos, Yi Wang, Pingbing Zuo, The energetic particle environment of the lunar nearside: energetic ions from Earth's bow shock, **Astrophys. J.**, 863:80, 2018.
- 11 **Xiaojun Xu**, Vassilis Angelopoulos, Yi Wang, Pingbing Zuo, Hon-Cheng Wong, and Jun Cui, The Energetic Particle Environment of the Lunar Nearside: SEP Influence, **Astrophys. J.**, 849, 151-157, 2017.
- 12 **Xiaojun Xu**, Hon-Cheng Wong, Yonghui Ma, Yi Wang, Pingbing Zuo, Meng Zhou, Ye Pang, and Xiaohua Deng, Anomalous high rate refilling in the near lunar wake caused by the Earth's bow shock, **J. Geophys. Res. Space Physics**, 122, 9102-9114, 2017. (featured paper)
- 13 **Xiaojun Xu**, Hon-Cheng Wong, Yonghui Ma, Yi Wang, Pingbing Zuo, Meng Zhou and Xiaohua Deng, Observations of current sheets associated with solar wind reconnection exhausts passing through the near lunar wake, **J. Geophys. Res.**, 120, 9246–9255, 2015. (featured paper)
- 14 **Xiaojun Xu**, Hon-Cheng Wong, Yonghui Ma, Yi Wang, Meng Zhou, Pingbing Zuo, Fengsi Wei, Xueshang Feng and Xiaohua Deng, Evidence for newly initiated reconnection in the solar wind at 1 AU, **Astrophys. J.**, 809, 5-11, 2015.
- 15 **Xu Xiaojun**, Yi Wang, Fengsi Wei, Xueshang Feng, Xiaohua Deng, Yonghui Ma, Meng Zhou, Ye Pang & Hon-Cheng Wong. Direct evidence for kinetic effects associated with solar wind reconnection, **Scientific Reports**, vol 5, 8080, 2015.
- 16 Yu, W. Y., **Xu, X. J (corr*)**, Deng, X. H. Comparative statistical study between MCs and Non-cloud-like ICMEs during solar cycles 23 near 1 AU, **Chinese J. Geophys.** 57(3), doi:10.6038/cjg20140301, 2014.
- 17 **Xu Xiaojun**, Wei Fengsi, Feng Xueshang. Characteristics of reconnection diffusion region in the solar wind. **Chin. J. Space Sci.**, 32(6): 778-784, 2012.
- 18 **Xu, X.**, F. Wei, and X. Feng, Observations of reconnection exhausts associated with large-scale current sheets within a complex ICME at 1 AU, **J. Geophys. Res.**, 116, A05105, doi:10.1029/2010JA016159, 2011.

Research Projects

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|---|--|---------------|----|-----------------|
| 1 | A study of dynamic process of magnetic reconnection in the interplanetary solar wind | NSFC-41204123 | PI | 2013.01-2015.12 |
|---|--|---------------|----|-----------------|

2	A study of the lunar wake interactions with small plasma structures in the solar wind	NSFC-41564007	PI	2016.01-2019.12
3	Comparative study of Venusian and Martian induced magnetospheres	FDCT-008/2016/A1	PI	2016.07-2019.07
4	Study of the Moon's energetic particle environment and forecast of the Earth's bow shock energetic particles at Moon	FDCT-0002/2019/A1	PI	2019.07-2022.07