



Research Field: SPACE PHYSICS, AERONOMY

Focused Field: SPACE ENVIRONMENT, ATMOSPHERIC GRAVITY WAVES

SHORT BIO

Following a Bachelor's degree in Mathematics at Huazhong Agricultural University (HZAU) in July 2016, I began my planetary atmosphere research as a Master student supervised by Prof. Jun Cui (崔峻) at National Astronomical Observatories of China (NAOC), Chinese Academy of Sciences. In July 2023, I was offered a Ph.D. degree majored in Earth and Planetary Sciences at State Key Laboratory of Lunar and Planetary Sciences in Macau University of Science and Technology (SKLplanet, MUST), under the supervision of Prof. Xiaojun Xu (徐晓军).

In November 2023, I joined the Planetary Space Physics Group as a post-doctoral led by Prof. Xiaojun Xu, at SKLplanet, MUST. My research interests include the planetary space environment and upper atmospheric dynamics. My recent works focus on the solar wind-driven Kelvin-Helmholtz Instability at ionopause of Mars, the ionospheric response to acoustic-gravity waves at Mars, and upper atmospheric thermal variability driven by the acoustic-gravity waves at Titan.

Postdoc

XING WANG

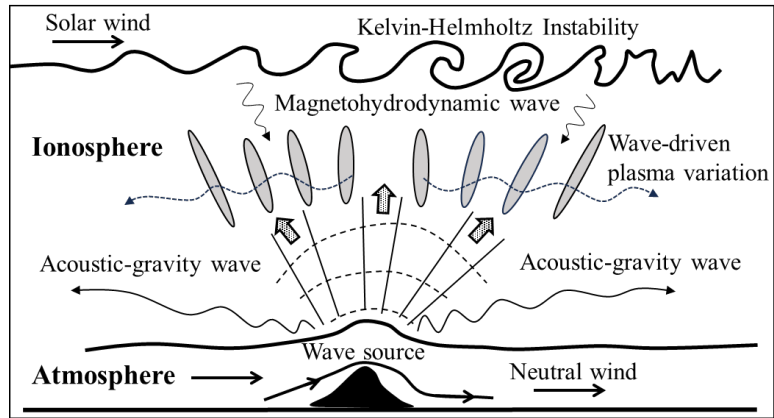
(王星)



PhD: Earth and Planetary Sciences–Macau University of Science and Technology (MUST)

Masters: Astrophysics – National Astronomical Observatories of China (NAOC)

Bachelor: Information and Computing Science (Computational Mathematics) – Huazhong Agricultural University (HZAU)



The impact of Kelvin-Helmholtz Instability and acoustic-gravity wave on Martian ionosphere (Wang et al. 2022, 2023)

KEY PUBLICATIONS (first author)

Xing Wang, Xiaojun Xu, Jun Cui, et al. (2023, January). Electron density variability in the day-side ionosphere of Mars: The role of gravity waves. *Monthly Notices of the Royal Astronomical Society*, 518(3), 4310-4321. doi.org/10.1093/mnras/stac3396.

Xing Wang, Xiaojun Xu, Yudong Ye, et al. (2022, April). MAVEN Observations of the Kelvin-Helmholtz Instability Developing at the Ionopause of Mars. *Geophysical Research Letters*, 49(7), e2022GL098673. doi.org/10.1029/2022GL098673.

Xing Wang, Yuan Lian, Jun Cui, et al. (2020, June). Temperature Variability in Titans Upper Atmosphere: The Role of Wave Dissipation. *Journal of Geophysical Research (Planets)*, 125(6), e2019JE006163. doi.org/10.1029/2019JE006163.

Xing Wang, Xiaomei Sun, et al. (2016, October). Orbital stability of generalized Choquard equation. *Bound Value Problems*. 190. doi.org/10.1186/s13661-016-0697-1.

PROFESSIONAL EXPERIENCE

11/2023 – present – Post Doctoral, Macau University of science and technology

GRANTS

NSFC – 01/2022 – 12/2024 – Lunar and Planetary Space Environment

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