Research Field: ENERGETIC PARTICLES IN THE HELIOSPHERE
Focused Field: COSMIC RAYS; SOLAR ENERGETIC PARTICLES

SHORT BIO

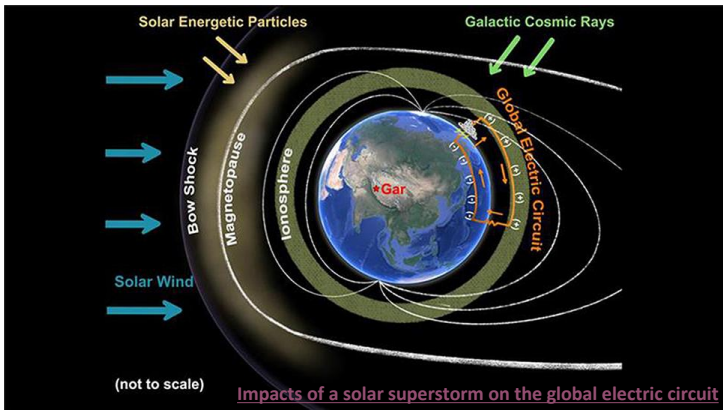
I am now an assistant professor at the Macau University of Science and Technology (MUST). I received my Bachelor of Atmospheric Science at the Nanjing University of Information Science & Technology (NUIST) in June 2013, and then I was offered a PhD project in Space Physics jointly supervised by Prof. Jiang Yong at the NUIST and Prof. Li Gang at the University of Alabama in Huntsville (UAH).

After obtaining my doctorate in Space Physics in June 2019, I accepted a post-doctoral position at the State Key Laboratory of Lunar and Planetary Sciences of MUST. My postdoctoral supervisor is Prof. Zhang Xiaoping.

My recent work mainly focuses on: 1) solar modulation of cosmic rays, 2) effects of solar events on the Earth's environment, including the global electric circuit (GEC) and the mesosphere–lower thermosphere (MLT).

Asst. Prof.

Shuai Fu (傅帥)



Impacts of a solar superstorm on the global electric circuit

KEY PUBLICATIONS (**Corresponding author*)

Li, J., **Fu*, S.**, Zhang*, X., et al., 2026. Dawn-Dusk Asymmetry of MLT Middle- and Low-Latitude Temperature Responses to Super Geomagnetic Storms. ***Physics of Fluids***

Li, J., Zhang*, X., **Fu*, S.**, et al., 2025. Equatorial Anomalous Responses of the Mesosphere and Lower Thermosphere Temperature to Super Geomagnetic Storms Observed by TIMED/SABER. ***Geophysical Research Letters***

Fu, S., et al., 2025. Global electric circuit response to the May 2024 geospace superstorm from China's Gar station observation. ***Physics of Fluids*** **[Featured by AIP Scilight]**

Peng, J., **Fu*, S.**, et al., 2025. Variations in the Surface Atmospheric Electric Field on the Qinghai–Tibet Plateau: Observations at China's Gar Station. ***Atmosphere***

Li, G., **Fu. S.**, et al., 2025. Magnetopause Location and Solar Wind Turbulence Level During FDs and Their Impacts on the Global Electric Circuit. ***Space Weather***

Fu, S., et al., 2023. Measurements of anomalous cosmic rays from the WIND spacecraft over 1994–2021. ***Monthly Notices of the Royal Astronomical Society***

Fu, S., et al., 2022. First report of a solar energetic particle event observed by China's Tianwen-1 mission in transit to Mars. ***The Astrophysical Journal Letters*** **[Highlighted by AAS Nova]**

Fu, S., et al., 2021. Comparison of anomalous and galactic cosmic-ray oxygen at 1 au during 1997–2020. ***The Astrophysical Journal Letters***

Fu, S., et al., 2021. Variations of the galactic cosmic rays in the recent solar cycles. ***The Astrophysical Journal Supplement Series***

Fu, S., et al., 2020. An ACE/CRIS-observation-based galactic cosmic rays heavy nuclei spectra model II. ***Science China Physics, Mechanics & Astronomy***

Fu, S., et al., 2020. Effects of solar activity on ionospheric ion upflow during geomagnetic quiet Periods: DMSP observations. ***Open Astronomy***

Fu, S., et al., 2019. Effect of star rotation rates on the characteristics of energetic particle events. ***The Astrophysical Journal Letters***

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PROFESSIONAL EXPERIENCE

08/2022 – Present – *Macau University of Science and Technology, Macau, China – Assistant Professor*

06/2020 – 06/2022 – *Macau University of Science and Technology, Macau, China – Post Doctoral*

11/2016 – 01/2018 – *University of Alabama in Huntsville (UAH), Huntsville, Alabama, USA – Visiting scholar*

TEACHING ACTIVITIES

LINEAR ALGEBRA (BAE1923)

ASTRONOMY (GSS001)

SPECIAL TOPIC IN SCIENCE AND TECHNOLOGY - "SPACE WEATHER" (GSS-28)

SPACE BIG DATA VISUALIZATION AND APPLICATIONS (MSDE04)

GRANTS

National Natural Science Foundation of China (NSFC), 2025.1~2027.12, PI

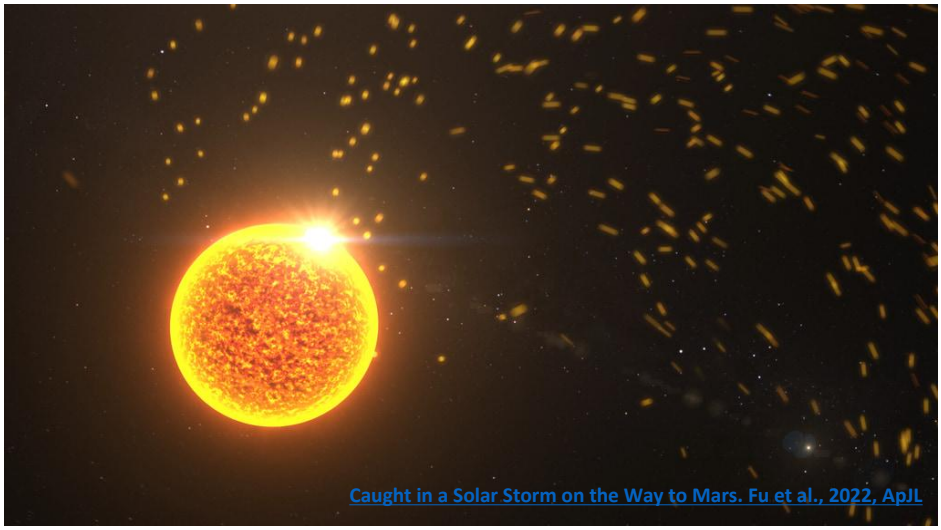
Science and Technology Development Fund (FDTC), 2024.1~2026.1, PI

Natural Science Foundation of Guangdong Province-General Programme, 2024.1~2026.12, PI

Faculty Research Grants, 2023.7~2024.7, PI

Specialized Research Fund for State Key Laboratory of Solar Activity and Space Weather, 2025.1~2025.12, PI

FDCT Funding Scheme for Postdoctoral Researchers of Higher Education Institutions, 2020.6~2022.6, PI



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