

# Stanford

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## Zhuo Liu

Postdoctoral Scholar, Earth and Planetary Sciences

### Bio

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#### BIO

Zhuo Liu is a postdoctoral scholar at the Stanford Doerr School of Sustainability, sponsored by Mineral-X. His expertise is in multi-geophysical data interpretation with both traditional methods and machine-learning-based methods for critical mineral exploration.

Zhuo Liu earned his PhD degree in Geophysics, with a minor degree in Geology, from the Colorado School of Mines (CSM), USA. His doctoral and postdoctoral research focused on advancing geophysical data interpretation methods and incorporating geologic prior information into the interpretation process in machine-learning and geostatistical approaches for mineral resources exploration.

Previously, Zhuo earned his Bachelor's degree in Applied Geophysics from the Central South University, China, and a Master's degree in Geophysics from the Colorado School of Mines (CSM), USA. He also visited the University of Science and Technology of China (USTC) as a Student Visiting Scholar under the mentorship of Dr. Xinming Wu in 2021.

#### STANFORD ADVISORS

- Jef Caers, Postdoctoral Faculty Sponsor

#### LINKS

- Linked in: <https://www.linkedin.com/in/liuzzzz/>

### Publications

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#### PUBLICATIONS

- **3D anisotropic forward modeling of controlled-source electromagnetic fields based on adaptive algebraic multi-resolution grids** *CHINESE JOURNAL OF GEOPHYSICS-CHINESE EDITION*  
Li, J., Liu, Z., Guo, R., Zhao, Z.  
2026; 69 (3)
- **Efficient regularization constraints forward modeling of anisotropic magnetotelluric in spherical-coordinate system** *CHINESE JOURNAL OF GEOPHYSICS-CHINESE EDITION*  
Wang, Y., Liu, Z., Guo, R., Li, J., Hou, S., Liu, W., Xue, P., Sun, M.  
2026; 69 (3): 1351-1363
- **Hydrogeophysical Imaging and Joint Interpretation of Rainfall Infiltration on an Embanked Slope in the Mid-Lower Yangtze Hilly Region** *APPLIED GEOPHYSICS*  
Guo, R., Li, C., Liu, Z., Wang, D., Yu, M.  
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- **Connect Geophysical Data Interpretation and Geology Through Inversion for Anisotropic Magnetic Susceptibility** *GEOPHYSICAL PROSPECTING*

Liu, Z., Li, Y.  
2025

- **Constrained simultaneous recovery of the depth to basement and lateral susceptibility variation** *GEOPHYSICAL PROSPECTING*

Liu, Z., Li, Y., Xu, K.  
2024; 72 (8): 3008-3025