Dr. XIAO Xiao 肖晓

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ORCID: 0000-0001-7247-561X
Email: xiaox17@mail.ustc.edu.cn
Github: seispider
Website: me.seispider.top

School of Physical and Mathematical Sciences
Nanyang Technological University
21 NanYang Link, Singapore

Professional Appointments

2023 – on **Postdoctral Research Fellow**
Division of Mathematical Sciences
School of Physical and Mathematical Sciences
Nanyang Technological University, Singapore

Education

2017 – 2023 **Ph.D in Geophysics**, University of Science and Technology of China, Hefei, China

2013 – 2017 **BSc in Geophysics**, WuHan University, Wuhan, China

Research Interests

- Structure and Evolution of the Earth's Lithosphere
- Theory and Applications of Seismic Tomography
- Observations of Earthquake Source
- Geodynamic modelling

Awards & Honors

2017 Outstanding undergradute graduates of WuHan University

2017 Outstanding undergradute thesis of WuHan University

Professional Societies & Activities

2019 Student Organizer of "Weekly Graduate Student Seminar of Geophysics, USTC"

2017 Secretary of the Foundation Exchange Meeting of China Seismological Reference Model

2017 – on Member of the American Geophysical Union (AGU)

2017 – on Construction member of China Seismological Reference Model

2016 – on Contributor of GMT China Community

Peer-reviewed Publications

*corresponding author

2025 Bai Y., Hao S., Xie J., Xu M., **Xiao X.**, Chen J., Chey C., Wang D., & Tong P. Geothermal potential in Singapore explored with non-invasive seismic data *Engineering Geology*. doi:10.1016/j.enggeo.2025.107968

2024 **Xiao X.***, Cheng S., Wu J., Wang W., Sun L., Wang X., Ma J., Tong Y., Liang X., Tian X., Li H., Chen Q., Yu S., & Wen L. CSRM-1.0: A China Seismological Reference Model. *Journal of Geophysical Research: Solid Earth*. doi:10.1029/2024JB029520

2022 **Xiao X.***, Sun L., Wang X., & Wen L. Simultaneous inversion for surface wave phase velocity and earthquake centroid parameters: methodology and application. *Journal of Geophysical Research: Solid Earth*. doi:10.1029/2022JB024018.

Yao J., Wu S., Li T., Bai Y., **Xiao X.**, Hubbard J., Wang Y., He Y., Thant M., & Tong P. Imaging the upper 10 km crustal shear-wave velocity structure of central Myanmar via a joint inversion of body-wave polarizations and receiver functions. *Seismological Research Letter*. doi:10.1785/0220210292.

2021 Cheng S., **Xiao X.**, Wu J., Wang W., Sun L., Wang X., & Wen L. Crustal Thickness and Vp/Vs Variations Beneath the Continental China Revealed by Receiver Function Analysis. *Geophysical Journal International*. doi:10.1093/gji/ggab022

Xiao X.*, Cheng S., Wu J., Wang W., Sun L., Wang X., & Wen L. Shallow seismic structure beneath China revealed by P wave polarization, Rayleigh wave ellipticity and receiver function. *Geophysical Journal International*. doi:10.1093/gji/ggab433.

Papers Submitted/Under Review

2022 Mao S., Cheng S., **Xiao X.**, Wu J., Wang W., Sun L., Wang X., & Wen L. *Journal of Geophysical Research: Solid Earth* [*Submitted*]

Papers in Preparation

on **Xiao X.***, Cheng S., Wu J., Wang W., Sun L., Wang X., Ma J., Tong Y., Liang X., Tian X., Li H., Chen Q., & Wen L. CSRD-1.0: A Seismological Reference Dataset around continental China.

on **Xiao X.**, Chen J., Hao S., Wang X., Nagaso M., Xu M., Bai Y., & Tong P.*, Tertiary Post-collisional Evolution of the Western Alps Orogen Driven by European Slab Breakoff

Presentations

Invited & Keynotes

2018 **Xiao X.**, Cheng S., & Wen L. Shallow shear wave structure beneath China revealed by rayleigh wave ellipticity and receiver function. *USTC*, Dec. 25, 2018. **[Student Seminar]**

Other Presentations

2022 **Xiao X.**, Sun L., Wang X., & Wen L. Simultaneous inversion for surface wave phase velocity and earthquake centroid parameters: methodology and application. *AGU 2022*, Chicago, IL, USA and *CGU 2022*, Online, CHN

2019 Xu, Y., Sun L., Hao, J., Lu, Z., **Xiao X.**, & Wen L. Source properties of 17 June 2019 Changning earthquake (Mw 6.2), China and its aftershocks. *AGU 2019*, San Francisco, CA, USA.

Zhu, J., Lu, Z., Xu, Y., **Xiao X.**, Wang X., & Wen L. Temperature-related Martian seismic events observed by InSight. *AGU 2019*, San Francisco, CA, USA.

Mao S., Cheng S., **Xiao X.**, Wu J., & Wen L. A three-dimensional receiver function migration method imaging the crustal structure in Sichuan-Yunnan Region, Southwest China. *AGU 2019*, San Francisco, CA, USA.

Lu, Z., **Xiao X.**, Cheng S., Wang X., Zhu, J., & Wen L. Shallow Martian Seismic Velocity Structure Inferred from InSight's Seismic Signals Produced by Air Pressure Variations. *AGU 2019*, San Francisco, CA, USA.

Xiao X., Cheng S., & Wen L. A Preliminary Crustal Shear Wave Velocity Model for the continental China. *AGU 2019*, San Francisco, CA, USA.

2018 **Xiao X.**, Cheng S., & Wen L. Shallow seismic structure beneath China revealed by body-wave polarization and Rayleigh-wave ellipticity. *AGU 2018*, Washington, DC, USA.

2017 **Xiao X.**, & Wen L. 3D Crust and Uppermost Mantle Structure beneath Tian Shan Region from ambient noise and earthquake surface waves. *AGU 2017*, New Orleans, LA, USA.

Expertise & Skills

Languages	:	Mandarin Chinese, English.
Programming	:	Python, Fortran, C, Matlab, Shell, LaTeX.
Seismological Tools	:	SAC, GMT, SOD, ObsPy, TauP, CPS330.
Synthetics	:	Reflectivity Method, Modal Summation, Generalized Ray Theory, Finite Difference.

Glossary

These are the meanings of the symbols used throughout this document:

- Link to a code repository on GitHub
- An ordinary link
- Link to presentation slides
- Field of research