

# Xiao Xiao

## PhD Candidate in Geophysics

Laboratory of Seismology and Physics of Earth's Interior;  
School of Earth and Space Sciences, University of Science and Technology of China  
Room 1127, Research Building, No. 96, Jinzhai Road, Hefei, Anhui 230026, China  
Email: [xiaox17@mail.ustc.edu.cn](mailto:xiaox17@mail.ustc.edu.cn) | Website: <http://home.ustc.edu.cn/~xiaox17>

## Education

- 2017 – present     **PhD Candidate** in Geophysics  
University of Science and Technology of China, Hefei, China
- 2013 – 2017        **B.S.** in Geophysics  
WuHan University, Wuhan, China

## Research Interests

- Ambient Noise Source Analysis
- Seismic Tomography
- Seismic Interferometry

## Professional Societies & Activities

- Spring, 2019     Student Organizer of “Weekly Graduate Student Seminar of Geophysics, USTC”
- 2017              Assist in coordinating exchange meeting of [China Seismological Reference Model](#)
- 2017 – present   Member of the [American Geophysical Union \(AGU\)](#)
- 2017 – present   Research assistant and database manager for [China Seismological Reference Model](#)
- 2016 – present   Contributor of [GMT China Community](#)

## Awards & Honors

- 2017     Outstanding undergraduate graduates of WuHan University
- 2017     Outstanding undergraduate thesis of WuHan University

## Peer-reviewed Publications

1. Chen, Z. Luo, J., **Xiao, X.**, & Sun, F.(2017). Assessment of COSMIC radio occultation water vapor profile. *Journal of National University of Defense Technology*, 39(3), 201–206.

## Papers Submitted/Under Review

1. Zhu, J. Lu, Z. Wang, X. X. **Xiao, X.**, Xu, Y. Y. & Wen, L. (2019). Seismic events detected by InSight: diurnal freeze-thaw cycles of aqueous Mg-perchlorate on Mars. *Nature Geoscience* [Submitted]

## Papers in Preparation

2. **Xiao, X.**, Cheng, S., Wu, J. P., & Wen, L. (2019). Shallow seismic structure beneath China revealed by P wave polarization, Rayleigh wave ellipticity and receiver function.
1. Cheng, S., **Xiao, X.**, Wu, J. P., & Wen, L. (2019). Crustal stratification and preliminary structure in continental China from receiver function analysis.

## Meeting Abstracts

6. Zhu J., Lu Z., Xu Y., **Xiao, X.**, Wang X. & Wen, L. (2019). Temperature-related Martian seismic events observed by InSight. Abstract DI51B-0025 presented at 2019 AGU Fall Meeting, San Francisco, CA, USA.
5. Mao S., Cheng S., **Xiao, X.**, Wu J. & Wen, L. (2019). A three-dimensional receiver function migration method imaging the crustal structure in Sichuan-Yunnan Region, Southwest China. Abstract S21D-0534 presented at 2019 AGU Fall Meeting, San Francisco, CA, USA.
4. Lu Z., **Xiao, X.**, Cheng S., Wang X., Zhu J. & Wen, L. (2019). Shallow Martian Seismic Velocity Structure Inferred from InSight's Seismic Signals Produced by Air Pressure Variations. Abstract DI51A-0015 presented at 2019 AGU Fall Meeting, San Francisco, CA, USA.
3. **Xiao, X.**, Cheng S. & Wen, L. (2019). A Preliminary Crustal Shear Wave Velocity Model for the continental China. Abstract S11D-0376 presented at 2019 AGU Fall Meeting, San Francisco, CA, USA.
2. **Xiao, X.**, Cheng S. & Wen, L. (2018). Shallow seismic structure beneath China revealed by body-wave polarization and Rayleigh-wave ellipticity. Abstract S23C-0530 presented at 2018 AGU Fall Meeting, Washington, DC, USA.
1. **Xiao, X.**, & Wen, L. (2017). 3D Crust and Uppermost Mantle Structure beneath Tian Shan Region from ambient noise and earthquake surface waves. Abstract S51D-062 presented at 2017 AGU Fall Meeting, New Orleans, LA, USA.

## Talks

1. **Xiao, X.** Shallow shear wave structure beneath China revealed by rayleigh wave ellipticity and receiver function. *School of Earth and Space Sciences, University of Science and Technology of China*, Hefei, China. Dec. 25, 2018. [Student Seminar]

## **Expertise & Skills**

<b>Languages</b>	Mandarin Chinese, English.
<b>Programming</b>	C, Python, Fortran, Matlab, Shell, LaTeX.
<b>Seismological Tools</b>	SAC, GMT, SOD, ObsPy, TauP, CPS330.
<b>Synthetics</b>	Reflectivity Method, Modal summation, Generalized Ray Theory.