

Hao Zhang

PHD STUDENT · GEOPHYSICS

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Education

University of Southern California

Los Angeles, CA

PH.D. IN GEOPHYSICS (IN PROGRESS)

2021 - present

- Advisor: John Vidale & Yehuda Ben-Zion

Peking University

Beijing, China

B.Sc. IN GEOPHYSICS

2016 - 2020

- Thesis: Frequency-Bessel Transform Method to Extract Higher-Mode Rayleigh Dispersion Curves.
- Advisor: Prof. Xiaofei Chen

Professional Experience

2021-Now **Research Assistant**, University of Southern California

2020-2021 **Research Assistant**, Institute of Geophysics, China Earthquake Administration

Publications

- [3] **Zhang, H.** and Y. Ben-Zion, 2024. Enhancing regional seismic velocity model with higher-resolution local results using sparse dictionary learning, *J. Geophys. Res.*, accepted.
- [2] **Zhang, H.**, H. Meng and Y. Ben-Zion, 2023. Lateral variations across the Southern San Andreas Fault Zone revealed from analysis of traffic signals at a dense seismic array, *Geophys. Res. Lett.*, **50**, e2023GL103759, doi: 10.1029/2023GL103759
- [1] Wang, L., Y. Zhou, S. Zhou and **H. Zhang**, 2023. Detection of Fault Zone Head Waves and the Fault Interface Imaging in the Xianshuihe-Anninghe Fault Zone (Eastern Tibetan Plateau), *Geophys. J. Int.*, **234**(2), 1157-1167, doi: 10.1093/gji/ggad131.

Awards, Fellowships & Grants

2023 **Earth Sciences Graduate Student Research Award**, University of Southern California

2020 **Distinguished Graduate**, Peking University & Beijing City

2019 **Outstanding Research Award**, Peking University

2017 **May Fourth Scholarship**, Peking University
Merit Student, Peking University

Teaching Experience

2022 **Crises of a Planet**, Teaching Assistant

USC

2019 **The Earth Gravity Field**, Teaching Assistant

PKU

Outreach & Professional Development

EXPERTISE

Generalization Theory: Mathematical Physics, Theoretical Physics, Probability and Statistics, Machine Learning

Programming Language: Python, MATLAB, Mathematica, C/C++, R, Fortran