Yurong Zhang

288 Farm Lane, East Lansing, MI | <u>yurong@msu.edu</u>

Profile

I am a geophysicist with strong computation, mathematical, and physical background. My research interests are seismic structures of the subduction zone and mantle wedge. I am currently focusing on seismic attenuation tomography.

Education

2020-present	Ph.D. Candidate – Michigan State University
	Advisor: Songqiao Shawn Wei.
2016-2020	Bachelor of Science in Geophysics - University of science and technology of
	China

Professional Experience

2024	Summer Intern – Los Alamos National Lab
	3D velocity tomography of the Pawnee fault zones in Oklahoma using the tomoDD
	package.
	Advisor: Ting Chen.
2023	CIDER 2023 Summer Program - University of California, Berkeley
	2 weeks of lectures and tutorials on fluids and magma transport, followed by 2
	weeks of collaborative project on fluids in the Lithosphere Asthenosphere
	boundary (LAB).
2020-present	Research Assistant – Michigan State University
	3D P-wave attenuation tomography of the Tonga-Lau subduction system with a
	transdimensional Bayesian Monte-Carlo approach.
	Source spectra and stress drops of earthquakes in the Pampean flat slab and the
	overriding plate.
	Advisor: Songqiao Shawn Wei.
2019	Summer Research Project for Undergraduate Students – Michigan State
	University
	Seismic attenuation of the South America Subduction zone.
	Advisor: Songqiao Shawn Wei.
Awards	
2024	Lucile Drake Pringle and Gordon H. Pringle Endowed Fellowship,\$1500 -
	Michigan State University
2024	SSA Student Travel Grant, \$1500 – Seismological Society of America
2023	Neal Research Award, \$1500 – Michigan State University
2021 - 2024	Earth and Environmental Sciences Travel Award, \$800-\$850 – Michigan State University

2020 Earth and Environmental Sciences Alumni Fellowship, \$7000 – Michigan State University

Publications

- Journal Publication

2025	Zhang, Y., Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., 3D P-wave attenuation tomography of the Tonga-Lau subduction system with a transdimensional Bayesian Monte-Carlo approach. In preparation for submission to <i>Geophysical Journal International</i> .
- Thesis	
2020	Zhang, Y. , Seismic attenuation above the Pampean flat slab in South America. Undergraduate thesis, supervised by Songqiao Shawn Wei and Huajian Yao, University of Science and Technology of China.
- Translations	
2023	Zhang, Y. , Wang, X., Translator. GEO DETECTIVES. Translated into Chinese. Publisher: 海峡书局 (Strait Bookstore), 2023. ISBN: 9787556711475. Original work by Anita Ganeri, Chris Oxlade (UK), and Bo Morgan (Chile). Produced by 后浪 (Houlang). The translation serves as a significant contribution to science education, making challenging subjects accessible and intriguing for Chinese- speaking Children.
Service	
2023-present	SZ4Grads – Executive committee member. <u>SZ4Grads</u> is a community under <u>SZ4D</u> , which is a collaborative, interdisciplinary, and intercultural network for graduate students and recent graduates studying subduction zone processes.
2023	Session convener , DI007: Bridging the observational gap: Integrating laboratory, field, and geophysical datasets to quantify mantle properties and processes, GSA North Central 2023.

Outreach and Engagement

2024 **OBS deployment demonstration** - Created and presented a demonstration of ocean-bottom seismometer (OBS) deployment techniques used during a cruise in the Tonga-Samoa region.

Field Experience

2023

<u>SaLOON (Samoa- Lau Ocean Observing Network)</u> – Assisted in deploying 30 OBSs and mapping 23 dredging sites during a 1-month cruise in the Tonga-Samoa region.

Teaching Experience

2024	Teaching Assistant – Michigan State University
	Applied Geophysics (GLG 471)
2022 - 2024	Instructor – Michigan State University
	Geology of the Human Environment Laboratory (ISP 203L)

Meeting Abstracts

 * Indicates Poste 	er presentation
2024	* Zhang, Y. , Wei, S. S., Tian, D., Linkimer, L., Beck, S., Source spectra and stress drops of earthquakes in the Pampean flat slab and the overriding plate, 2024 AGU Fall Meeting, Washington, DC.
	* Zhang, Y. , Chen, T., Woo, J., Gao, K., Wei, S. S., Characterizing Fault Zones in the Pawnee Area Using 3D body wave tomography, 2024 AGU Fall Meeting, Washington DC
	Zhang, Y., Chen, T. , Woo, J., Gao, K., Fault structure in the Pawnee area and its implications for induced earthquakes, GSA 2024 Annual Meeting, Anaheim, CA. (Chen is the presenting author.)
	Zhang, Y. , Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave attenuation structure and melting processes of the Tonga-Lau mantle wedge, SSA Annual Meeting 2024. Anchorage, AK.
	* Zhang, Y. , Wei, S. S., Wiens, D., Jackson, M., Bai, R., Du, Y., Elliot, D., Kerr, M., Peng, D., Roy, D., Wang, F., Wildreick, D., Williams, A., Zhang, J., Exploring the depths: unveiling the secrets of the Tonga-Lau-Samoa region with SaLOON, the 7th annual Earth and Environmental Sciences Student Research Symposium. East Lansing, MI.
2023	* Pusok, E. A., Udell-Lopez, K., Barrett, N., Bowman, E., Rebaza, M. A., Tian, X, Zhang , Y., Harmon, N., Rychert, C., Kelley, K. A., Naif, S., Sim, J., Roy, M., Jadamec, M., Katz, E., Li, Y., A multidisciplinary approach to constraining the stability of melt at the lithosphere–asthenosphere boundary, 2023 AGU Fall Meeting, San Francisco, CA.
	Zhang, Y. , Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-Wave Attenuation Structure and Melting Processes of the Tonga-Lau Mantle Wedge, SSA Annual Meeting 2023, San Juan, PR.
2022	Zhang, Y. , Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave attenuation structure of the Tonga subduction zone and implications for mantle, 2022 AGU Fall Meeting, Chicago, IL.
	 * Zhang, Y., Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave attenuation structure of the Tonga subduction zone and implications for mantle wedge processes, 2022 SAGE/GAGE Community Science Workshop, Pittsburg, PA. * Zhang, Y., Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave attenuation structure of the Tonga subduction zone and implications for mantle wedge processes, 2022 SZ4D Community Meeting, Houston, TX.
	* Zhang, Y. , Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave attenuation structure of the Tonga subduction zone and implications for mantle

	wedge processes, GeoPRISMS Structure and Deformation at Plate Boundaries
	Workshop, Honolulu, HI.
2021	* Zhang, Y., Wei, S. S., Byrnes, S. S., Tian, D., Wang, F., Bezada, M., P-wave
	attenuation tomography of the Tonga-Lau mantle wedge improved by a Bayesian
	Monte Carlo Approach and independently constrained source spectra, 2021 AGU
	Fall Meeting, New Orleans, LA.
2020	* Zhang, Y., Wei, S. S., Linkimer, L., Seismic attenuation above the Pampean flat
	slab in South America, 2020 AGU Fall Meeting, online.