

Shuo Zhang

Shuo.zhang@utdallas.edu

Zhangssean0630@gmail.com

Austin, Texas, USA

Mobile: (+1) 469-543-9006

EDUCATION EXPERIENCE

- Ph.D. in Geoscience, The University of Texas at Dallas, 08/2018 – 12/2023
- M.S in Geoscience, The University of Texas at Dallas, 08/2016 – 05/2018
- B.E. in Geophysical Prospecting, China University of Petroleum (Beijing), 09/2012 – 06/2016

WORK EXPERIENCE

- **Post-doctoral Researcher, The University of Texas at Austin, Austin, TX, USA, 12/2023 – present**
 - Solving subsurface imaging problems using advanced techniques of full waveform inversion and uncertainty quantification.
 - Constructing spatial and temporal evolutions of near-surface seismic velocity by using ambient seismic noise.
- **Research Assistant, The University of Texas at Dallas, Richardson, TX, USA, 08/2018 – 12/2023**
 - Constructed a 3-D radially anisotropic seismic model for the crust beneath Oklahoma by using three-component seismogram and full waveform inversion.
 - Investigated temporal variation of seismic velocity from continuous seismic recordings to monitor terrestrial water storage and meteorological drought in central Oklahoma.
- **Summer Research Intern, Total E&P INC, Houston, TX, USA, 05/2020 – 08/2020**
 - Computed point-spreading-functions to estimate the impact of imbalance illumination, limited frequency band, and amplitude distortion of elastic RTM/LSRTM.
 - Designed multi-component deblurring filters to remove artifacts in the elastic RTM/LSRTM, and tested its performance with synthetic and real data.
- **Geophysical Graduate Intern, Aramco Services Company, Houston, TX, USA, 08/2021 – 12/2021**
 - Inversion of high-resolution P-wave velocity from high-frequency seismic data using a phase-matching method after conventional travel-time or post-migration tomography.
 - Investigated the possibility of inverting S-wave velocity from large offsets reflection data.

PUBLICATIONS

- **Zhang, S.**, Luo, B., Ben-Zion, Y., Lumley, E. D., Zhu, H., 2023, Monitoring terrestrial water storage, drought and seasonal changes in central Oklahoma with ambient seismic noise[J], *Geophysical Research Letter*, doi: 10.1029/2023GL103419.
- **Zhang, S.** and Zhu, H., 2023, Constructing a 3-D radially anisotropic crustal velocity model for Oklahoma using full waveform inversion[J], *Journal of Geophysical Research-Solid Earth*, doi:10.1029/2023JB026992.
- **Zhang, S.**, Igel, H., Zhu., 2023, Sensitivity kernel for coda wave interferometry based on the adjoint method – the diffusion approximation[J], *Geophysical Journal International*, in revision.
- Luo, B., **Zhang S.**, Zhu H., 2023, Monitoring Seasonal Fluctuation and Long-Term Trends for the Greenland Ice Sheet Using Seismic Noise Auto-Correlations[J]. *Geophysical Research Letter*, doi:10.1029/e2022GL102146.
- Zhang, H., Liang, H., **Zhang, S.**, 2023, Distributed iterative re-weighted least-square algorithm for high-resolution finite-frequency travel-time velocity inversion using VSP data, *Journal of Applied Geophysics*, 211, 104973, doi: 10.1016/j.jappgeo.2023.104973
- Yang J., Zhu., Li X., Ren L., **Zhang S.**, 2020, Estimating P wave velocity and attenuation structures using full waveform inversion based on a time domain complex-valued viscoacoustic wave equation: The method[J]. *Journal of Geophysical Research – Solid Earth*, doi:10.1029/2019JB019129.