



Dr. Yingping Li

5515 Cranston Ct., Sugar Land, TX 77479, USA. y1p2li58@gmail.com; lyingpin@central.uh.edu +1 832-287-7877

EDUCATION

Ph.D. - Geophysics, 1992 New York Stony Brook University, New York, USA (Advisor: Clifford Thurber, AGU Fellow)
 M. S. - Seismology, 1984 CAS-GS / Institute of Geophysics, SSB, Beijing, China (Advisor: Xinling Qin, Academician)
 B. S. - Geophysics, 1982 University of Science and Technology of China (USTC), Hefei, Anhui, China

PROFESSIONAL ACTIVITY

Professional Society: Member of AGU, SEG, EAGE
 Professional Services: 2024 Lead Editor, AGU Monograph, "Distributed Acoustic Sensing in Borehole Geophysics"
 2021 Lead Editor, AGU Monograph 268, "Distributed Acoustic Sensing in Geophysics"
 2019,2021 Interpretation DAS special section, co-associated-editor
 2020-2023, NSF-DAS-RCN Steering Committee Member, Co-lead Instrument Work Group
 2016-2023, Lead and/or co-organizer of SEG,EAGE,& AGU DAS workshops

Publications: 92 Peer-reviewed papers, 27 *Invited Presentations/lectures*, 71 Technical Reports/Abstracts.

CURRENT RESEARCH INTERESTS

My research focuses on precisely measuring and sensing the physical properties of rocks. This entails analyzing parameters like velocity, attenuation (Q), anisotropy, and fracture growth using a range of borehole geophysical tools, including Distributed Fiber-Optic Sensing (DFOS) such as DAS/DTS/DSS technologies, 3C geophones, and 4C OBNs. I specialize in employing high-resolution imaging techniques, particularly vertical seismic profiling (VSP), to reveal subsurface structures in energy resource reservoirs. Currently, I'm emphasizing the use of DAS for geothermal and CO2 injection monitoring, as well as for downhole flow monitoring. I'm also exploring 3C/3D DAS-VSP measurements, developing a 3D DAS radar array and DAS logging tools, and analyzing borehole DAS ambient noise to detect rock faults and fractures. In addition to these areas, my research extends to 3C3D migration imaging, velocity updates through TT and FWI tomography, microseismic location analysis, and determining water velocity from DAS/VSP/OBN data via water bottom multiples. I'm also investigating fracture-induced anisotropy and analyzing source time functions and rock rupture processes of earthquakes using the empirical Green's function (EGF) method.

PROFESSIONAL EXPERIENCE

2022 – Present	University of Houston, Houston, Texas, USA	Adjunct Professor in Geophysics
2020 – Present	BlueSkyDas LLC, Sugar Land, Texas, USA	Chief Scientist & Co-Founder
2005 – 2020:	Shell E & P, Houston, Texas, USA	SME-VSP & Borehole Geophysics Advisor
1997 – 2005 :	Baker Atlas, Houston, Texas, USA	Geoscientist Advisor
1992 – 1997 :	MIT, Earth Resource Lab, Boston, Massachusetts, USA	Research Scientist
1986 – 1992 :	New York Stony Brook University (SUNYSB), New York, USA	Teaching/Research Assistant
1982 – 1986 :	Institute of Geophysics, SSB, Beijing, China	Researcher
1976 – 1978 :	High School Attached to Shanxi University (HSASU), Taiyuan, China	Teacher

TEACHING EXPERIENCES

2014-2019 Mini DAS, Borehole Geophysical Training, Borehole Seismic Under Salt courses at Shell.
 1995-1996 Seismology Lab Course at MIT
 1986-1988 Teaching Assistant for Rock Mechanics & Natural Hazard at SUNYSB
 1976-1978 Teaching High School Math & Physics at HSASU

RECENT PUBLICATIONS (since 2020)

Peer-reviewed:

- Li, D., Huang, L., Li, Y., Zheng, Y., & Moore J., (2023), Seismic Monitoring EGS Fracture Stimulations at Utah FORGE (Part 2): Spatial and Time-Lapse Variations of Seismic Response Rates and Released Seismic Energy of Induced Microearthquakes, Submitted to **Geothermics**, Under Peer-Review.
- Li, D., Huang, L., Zheng, Y., & Li, Y., (2024), Monitoring Granitic and Sedimentary Rocks at the Utah FORGE Site Using Borehole DAS Ambient Noise, Chapter in AGU Geophysical Monograph "**Distributed Acoustic Sensing in Borehole Geophysics**", Accepted.
- Li, Y., Li, D., Huang, L., & Zheng, Y., (2024), Three-component DAS Arrays with Three-dimensional Fiber Cable Deployment, Chapter in AGU Geophysical Monograph "**Distributed Acoustic Sensing in Borehole Geophysics**", Accepted.
- Li, D., Huang, L., Zheng, Y., & Li, Y., (2024), Automatic Picking of DAS-VSP First-Arrival Traveltimes Using a Differential-Phase-Spectral Slope Method, Chapter in AGU Monograph "**Distributed Acoustic Sensing in Borehole Geophysics**", Accepted.
- Li, D., Huang, L., Li, Y., Zheng, Y., & Moore J., (2024), Seismic Monitoring of EGS Fracture Stimulations at Utah FORGE (Part 1): Time-lapse Variations of b-Values and Shear-Wave Splitting Rates of Induced Microearthquakes, **Geothermics**, <https://doi.org/10.1016/j.geothermics.2024.103005>
- Li, D., Huang, L., Zheng, Y., Li, Y., Schoenball, M., Rodriguez-Tribaldos, V., Ajo-Franklin, J., Hopp, C., Johnson, T., Knox, H., Blankenship, D., Dobson, P., Kneafsey, T., and Robertson, M., (2024), Detecting fractures and monitoring hydraulic fracturing processes at the first EGS Collab testbed using borehole DAS ambient noise, **Geophysics**, 30 Nov. 2023 online, <https://doi.org/10.1190/geo2023-0078.1>
- Li, Y., Li, D., Huang, L., Zheng, Y., (2023), 3D-3C Distributed Acoustic Sensing Arrays in Marine Geophysics, 3rd EAGE Workshop on Fiber Optics Sensing for Energy Applications, 15 - 17 November 2023, Chengdu, China.
- Xu, T., Li, Y., & Zheng, Y., (2023), Characterizing Near-Surface Structures and Properties Using Distributed Acoustic Sensing, 3rd EAGE Workshop on Fiber Optics Sensing for Energy Applications, 15 - 17 November 2023, Chengdu, China.
- Li, Y., Li, D., Huang, L., Zheng, Y., (2023), Improving Signal-to-Noise Ratios of DAS Data Using Beamforming and Coherent Stacking, 3rd EAGE Workshop on Fiber Optics Sensing for Energy Applications, 15 - 17 November 2023, Chengdu, China.
- Li, Y., Li, D., Huang, L., Zheng, Y., & Moore J. (2023), Borehole Seismic Study at the Utah FORGE Geothermal Site, USA, **Proceedings of World Geothermal Congress**, pp1-12, WGC2023, September 15-17, 2023, Beijing, China.
- Li, Y., Li, D., Huang, L., & Zheng, Y. (2023), 3D Installation of fiber cables for Acquiring 3C DAS Array Data, Third International Meeting for Applied Geoscience & Energy Expanded Abstracts. December 2023, 1787-1791. <https://doi.org/10.1190/image2023-w04-01.1>
- Li, Y., Li, D., Huang, L., Zheng, Y., Wannamaker P., & Moore J., (2022), Anisotropic properties in the sedimentary and granite rocks at the Utah FORGE geothermal site revealed by shear-wave splitting of 3-component borehole microseismic data, SEG Technical Program Expanded Abstracts :3619-3623, <https://doi.org/10.1190/image2022-3750065.1>
- Li, D., Huang, L., Zheng, Y., Li, Y., Wannamaker P., & Moore J., (2022), Feasibility of source-free DAS logging for next-generation borehole imaging, **Scientific Reports** 12, 11910. <https://doi.org/10.1038/s41598-022-16027-3>
- Li, Y., Karrenbach, M., & Ajo-Franklin, J.B., (2022), Using Sound and Vibration Signals to Understand the Subsurface, **Eos**, 103, <https://doi.org/10.1029/2022EO2150001>
- Li, Y., Karrenbach, M., & Ajo-Franklin, J.B., (2021), **Distributed Acoustic Sensing in Geophysics: Methods and Applications**, 320pp. Volume 268 of *Geophysical Monograph Series*. American Geophysical Union, ISBN: 978-1-119-52177-8. <https://www.wiley.com/en-gb/Distributed+Acoustic+Sensing+in+Geophysics%3A+Methods+and+Applications-p-9781119521778>
- Li, Y., Karrenbach, M., & Ajo-Franklin, J.B. (2021), A Literature Review: Distributed Acoustic Sensing (DAS) Geophysical Applications Over the Past 20 Years. Chapter 17, 229-291, in **Geophysical Monograph 268, Distributed Acoustic Sensing in Geophysics: Methods and Applications**, edited by Y. Li, M. Karrenbach, & J.B. Ajo-Franklin. <https://doi.org/10.1002/9781119521808.ch17>
- Zhou, R., Osypov, K., Bona, A., Li, Y., Willis, M., Pevzner, R., Verliac, M., & Zhan, G., (2021), Introduction to special section: Distributed acoustic sensing. **Interpretation** 9: SJI-SJii. <https://doi.org/10.1190/INT-2021-0909-SPSEINTRO.1>
- Duan, Y., Li, Y., Kryvohuz, M., Mateeva, A., & Chen, T. (2020), 3D salt-boundary imaging with transmitted waves in DAS VSP data acquired in salt. SEG Technical Program Expanded Abstracts : 370-374. <https://doi.org/10.1190/segam2020-3428055.1>

Reports & Abstracts

- Li, Y., Li, D., Huang, L., & Zeng, Y., (2023), Borehole DAS Ambient Noise and 3D3C DAS array, DAS-RCN DAS Workshop, Wisconsin-Madison, WI, USA, June 12-14, 2023.
- Li, Y., Li, D., Huang, L., & Zeng, Y. (2022), Borehole DAS Ambient Noise in Sedimentary Rocks at the Utah FORGE Geothermal Site, 2022 AGU Fall Meeting, S35A, <https://ui.adsabs.harvard.edu/abs/2022AGUFM.S35A.04L/abstract>
- Li, Y., Li, D., Huang, L., Zeng, Y., Wannamaker, P.E., & Moore, J., (2021), Borehole DAS Ambient Noise at the Utah FORGE Geothermal Site, 2021 AGU Fall Meeting, S25B-0229. <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/968265>
- Li, D., Huang, L., Zeng, Y., Li, Y., Nash G.D., Wannamaker, P.E., & Moore J., (2021), Sonic waveform imaging around a borehole within granite at the Utah FORGE geothermal site, 2021 AGU Fall Meeting, S23A-06. <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/951492>