

Xun (Jack) Li

PhD in Geophysics

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PROFESSIONAL CAREER

Postdoctoral Research Associate 2023–Now
• School of GeoSciences, The University of Edinburgh, Scotland, United Kingdom

EDUCATION

Swiss Federal Institute of Technology, Zurich (ETH), Switzerland 2018–2022
• PhD., Geophysics
• Thesis: *Elastic immersive wave experimentation*
• Advisor: Prof. Johan Robertsson

Colorado School of Mines, United States 2016–2018
• MSc., Geophysics
• Thesis: *A unified interpretation of nonlinear elasticity in granular solids* GPA: 3.99
• Advisor: Prof. Roel Snieder

University of Edinburgh, United Kingdom 2014–2016
• BSc (Hons)., Geophysics, **First Class** GPA: 77/100

Nanjing University, China 2012–2014
• BSc., Geology GPA: 4.52/5.0

PEER-REVIEWED PUBLICATIONS

1. **Li, X.**, Robertsson, J., and van Manen, D-J., Elastic immersive wave experimentation, *Geophysical Journal International*, 2023
2. **Li, X.**, Robertsson, J., Curtis, A., and van Manen, D-J., Internal absorbing boundary conditions for closed-aperture wavefield decomposition in solid media with unknown interiors, *The Journal of the Acoustical Society of America*, 2022
3. **Li, X.**, Koene, E., van Manen, D-J., Robertsson, J., and Curtis, A., Elastic immersive wavefield modelling, *Journal of Computational Physics*, 2022
4. **Li, X.**, Becker, T., Ravasi, M., Robertsson, J., and van Manen, D-J., Closed-aperture unbounded acoustics experimentation using multidimensional deconvolution, *The Journal of the Acoustical Society of America*, 2021 (**Front cover of March issue**)
5. **Li, X.**, Robertsson, J., Curtis, A., and van Manen, D-J., Compensating for source directivity in immersive wave experimentation, *The Journal of the Acoustical Society of America*, 2019
6. **Li, X.**, Sens-Schönfelder, C., and Snieder, R., Nonlinear elasticity in resonance experiments, *Physical Review B*, 2018
7. **Li, X.**, Main, I., and Jupe, A., Induced seismicity at the UK 'hot dry rock' test site for geothermal energy production, *Geophysical Journal International*, 2018
8. Becker, T. S., van Manen, D-J., Haag, T., Bärlocher, C., **Li, X.**, Bösing, N., Curtis, A., Serra-Garcia, M., and Robertsson, J., Broadband acoustic invisibility and illusions, *Science Advances*, 2021
9. van Manen, D-J., **Li, X.***, Vasmel, R., Broggini, F., and Robertsson, J., Exact extrapolation and immersive modelling with finite-difference injection, *Geophysical Journal International*, 2020
10. Sens-Schönfelder, C., Snieder, R., and **Li, X.**, A model for nonlinear elasticity in rocks based on internal friction and contact aging, *Geophysical Journal International*, 2019

* Serve as the corresponding author

EXPANDED ABSTRACTS

1. **Li, X.**, Börsing, N., Becker, T., van Manen, D-J., Curtis, A., and Robertsson, J., Immersive Wave Control Experiments Using Non-isotropic Sources: Laboratory Applications, *Forum Acousticum 2020* (no peer review).
2. **Li, X.**, Becker, T., Ravasi, M., Robertsson, J., and van Manen, D-J., Multidimensional Deconvolution for Boundary Reflection Removal and Complete Scattering Characterization in Physical Acoustics Experiments, *32nd Parallel Computational Fluid Dynamics Conference (ParCFD 2021)* (limited peer review).

CONFERENCES ABSTRACTS

1. van Manen, D-J., Becker, T., **Li, X.**, Müller, J., Aichele, J., Serra-Garcia, M., and Robertsson, J., Acoustic Cloning, International Conference on Underwater Acoustics 2022 (ICUA2022)
2. **Li, X.**, Becker, T., Ravasi, M., Robertsson, J., and van Manen, D-J., Unbounded full-aperture acoustic wave experimentation using multidimensional deconvolution, *meeting of the Acoustical Society of America (ASA), 2021 Fall*.
3. **Li, X.**, Börsing, N., Becker, T., van Manen, D-J., Curtis, A., and Robertsson, J., Immersive wave control experimentation using compensated directive sources, *meeting of the Acoustical Society of America (ASA), 2019 Fall*.
4. Sens-Schönfelder, C., Snieder, R., and **Li, X.**, A physics-based model for seismic velocity changes induced by dynamic strain, *EGU General Assembly Conference*, 2018

INVITED PRESENTATIONS

1. *Closed-aperture unbounded acoustics experimentation using multidimensional deconvolution* at the Langevin Institute (Paris) 2023.02

APPROVED GRANTS

1. *Seismic control of laboratory earthquakes in granular media*. Postdoc fellowship funded by LabEx WIFI at the Langevin Institute (ESPCI, Paris). Funding: €57,854, 2023. Reviewed by an Internal selection committee.
2. *Laser ultrasonic laboratory for studying nonlinear wave propagation in granular materials*. Postdoc Mobility fellowship approved by the Swiss National Science Foundation Funding: CHF 106,600, 2023. Stringently peer-reviewed as a grant.

TEACHING EXPERIENCE

- *Numerical Modelling in Applied Geophysics* (master level), ETH Zurich 2019–2022
 - Post-course tutorial sessions (Teaching Assistant)
 - Exercise grading
- *Exploration and Environmental Geophysics* (undergraduate level). ETH Zurich 2019
 - Post-course exercise grading (Teaching Assistant)

REFeree WORK

- Geophysics
- Geophysical Research Letter
- Geophysical Prospecting
- Petroleum Science

SOCIETY MEMBERSHIPS

- Acoustical Society of America (ASA)
- European Association of Geoscientists and Engineers (EAGE)
- Society of Exploration Geophysicists (SEG)

AWARDS

ETH, Zurich

- Chinese government award for outstanding self-finance students abroad 2021
 - Awarded annually to 500 students globally

University of Edinburgh

- Class Medal for 3rd Year Geophysics 2015
- Mobil North Sea Prize 2015
 - Awarded annually to the best junior student

Nanjing University

- China National Scholarship for undergraduate students 2013