

# WEIFAN LU

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## ACADEMIC POSITIONS

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<b>Université Grenoble-Alpes</b> , Grenoble, France	2025.12 - Present
Postdoctoral Fellow	
Advisor: Nikolai Shapiro	
<b>The University of Tokyo</b> , Tokyo, Japan	2025.07 - 2025.12
Postdoctoral Fellow	
Advisor: Satoshi Ide	

## EDUCATION

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<b>The University of Tokyo</b> , Tokyo, Japan	2023.11 - 2025.07
Visiting Ph.D. Student in Geophysics	
Advisor: Satoshi Ide	
<b>Peking University</b> , Beijing, China	2019.09 - 2025.07
Ph.D. in Geophysics	
Advisor: Han Yue & Lian Xue	

## AWARDS AND HONORS

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<b>JSPS Postdoctoral Fellowship</b> , Japan	2026
Merit Student Award, Peking University	2022,2023
Tung OoCL Scholarship, Peking University	2023
<b>President Scholarship</b> , Peking University	2022
Outstanding Scientific Research Award, Peking University	2021
Outstanding Presentation, China Seismic Experimental Site Conference	2020
<b>National Scholarship</b> , Ministry of Education of the People's Republic of China	2016,2018
Mathematical Contest In Modeling Certificate of Achievement Meritorious Winner (top 10%)	2018
Liu Guang-Ding Geophysics Scholarship, Liu Guang-Ding Science Foundation	2017

## PUBLICATIONS

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### *In review or revision*

[S3] **Lu,W\***. (2025). Migration of Multimodal Deep Earthquake Swarm beneath the Abu Volcano Group, Japan (Under Review, *Geophysical Research Letters*)

[S2] **Lu,W\***, and Ide, S. (2025). Spatiotemporal Characteristics of Tectonic Tremor in California (Under Review, *Geophysical Research Letters*)

[S1] Yue, H\*, **Lu,W.**, and Li, G. (2025). Post-foreshock transient slip facilitates the mainshock occurring during the 2016 Kumamoto earthquake sequence: the fourth foreshock evolution mode (Under Review, *Earth and Planetary Science Letters*)

### *Peer reviewed*

#### *First-authored*

[1] **Lu,W.**, Xue, L\*, Yue, H., Zhuang, J., and Zhao, L. (2025). Exploring Tidal Modulation of Seismicity in Southern California. *Journal of Geophysical Research: Solid Earth*. doi.org/10.1029/2025JB032249

[2] **Lu,W\***, Ide, S., and Yue, H. (2025). Small-scale stress heterogeneity inferred many Anti-repeating earthquakes

in Sierra Valley, Nevada. *Earth, Planets and Space*. doi.org/10.1186/s40623-025-02273-y

[3] **Lu, W.**, Ide, S., and Yue, H. (2025). Feature of cascading rupture frequently observed in Northern California. *Communications Earth Environment*. doi.org/10.1038/s43247-025-02138-y (Behind the Paper)

[4] **Lu, W.**, Zhao, Z., Yue, H., Zhou, S., Wu, J., and Song, X. (2024). The Accessible Seismological Dataset of the high-density 2D seismic Array along Anninghe Fault. *Earthquake Science*. doi.org/10.1016/j.eqs.2023.11.001 (Article Highlights)

[5] **Lu, W.**, Zhou, Y., Zhao Z., Yue, H., and Zhou, S. (2022). Aftershock sequence of the 2017 Mw 6.5 Jiuzhaigou, China earthquake monitored by an AsA network and its implication to fault structures and strength. *Geophysical Journal International*. doi.org/10.1093/gji/ggab443 (PKU SESS News)

Co-authored

[6] Zhao, Z., Xue, L., Burgmann, R, Heimisson E, **Lu, W.**, Yue, H. (2025). Periodic seismicity modulations reveal important roles of pore fluid behaviors in controlling fast and slow earthquakes. *Science Advances*. doi/10.1126/sciadv.ady6350

[7] Yue, H., Shen, Z.-K., Zhao, Z., Wang, T., Cao, B., Li, Z., Bao, X., Zhao, L., Song, X., Ge, Z., Ren, C., **Lu, W.**, Zhang, Y., Liu-Zeng, J., Wang, M., Huang, Q., Zhou, S., and Xue, L. (2022). Rupture process of the 2021 M7.4 Maduo earthquake and implication for deformation mode of the Songpan-Ganzi terrane in Tibetan Plateau. *Proceedings of the National Academy of Sciences*. doi.org/10.1073/pnas.2116445119

[8] Chang, Y., Liang, C., Cao, F., Zhou, L., Liao, J., **Lu, W.**, and Wang, C. (2022). Seismic Velocity Structure for the Anninghe - Zemuhe Fault Zone by Wave Gradiometry Analysis. *Chinese Journal of Geophysics* (in Chinese)

[9] Yue, H., Sun, J., Wang, M., Shen, Z., Li, M., Xue, L., **Lu, W.**, Zhou, Y., Ren, C., and Lay, T. (2021). The 2019 Ridgecrest, California earthquake sequence: Evolution of seismic and aseismic slip on an orthogonal fault system. *Earth and Planetary Science Letters*. doi.org/10.1016/j.epsl.2021.117066

## SELECTED CONFERENCE PRESENTATIONS

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[1] **Lu, W.**, Ide, S., and Yue, H. Small-scale Stress Heterogeneity Inferred Many Anti-Repeating Earthquakes in the Sierra Valley, Nevada (Poster), *JpGU Meeting*, Chiba, Japan, 2025

[2] **Lu, W.**, Ide, S., and Yue, H. Feature of cascading rupture frequently observed in Northern California (Poster), *AGU Fall Meeting*, Washington, D.C, USA, 2024

[3] **Lu, W.**, Ide, S., and Yue, H. Feature of cascading rupture frequently observed in Northern California (Oral), *SSJ Meeting*, Niigata, Japan, 2024

[4] **Lu, W.**, Ide, S., and Yue, H. Large and small earthquakes can have similar seismic wave onsets of the San Andreas fault in Northern California (Oral), *Japan Geoscience Union*, Chiba, Japan, 2024

[5] **Lu, W.**, Xue, L., and Yue, H. Tidal Modulation Constrained Fault Properties: A Case Study of Southern California, USA (Poster), *AGU Fall Meeting*, San Francisco, USA, 2023

[6] **Lu, W.**, Xue, L., and Yue, H. Tidal Triggering of Earthquakes in Southern California (Oral)(Online), *AGU Fall Meeting*, Chicago, USA, 2022

[7] **Lu, W.**, Xue, L., and Yue, H. Tidal modulation of seismicity in Southern California (Poster)(Online), *AGU Fall Meeting*, New Orleans, USA, 2021

[8] **Lu, W.**, Yue, H., and Zhou, Y. Aftershock sequence and fault geometry of the 2017 Mw 6.5 Jiuzhaigou earthquake: an application of AsA network, denoising algorithms and fault geometry determination techniques (Oral), *AGU Fall Meeting*, San Francisco, USA, 2019

## SEMINARS / TALKS

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Short Visit, GNS Science, Wellington, New Zealand	2025
Short Visit, Monash university, Melbourne, Australia	2025
1st Mini-Workshop of the ANR PREM's Project, ENS, ( <b>Invited</b> ), Online, France	2025
Yunnan University ( <b>Invited</b> ), Kunming, China	2025
Short Visit, MIT, Boston, USA	2024
Joint-seminar with DPRI, Kyoto University, Kyoto, Japan	2024
Youth Forum on Earthquake Science and Technology ( <b>Invited</b> ), Beijing, China	2022

## SERVICES

<b>Reviewer:</b> Journal of Geophysical Research: Solid Earth (2)	2024 - Present
Seismological Research Letters (1)	2022 - Present
Earthquake Science (1)	2025 - Present
<b>Volunteer:</b> Science of slow to fast earthquake (JpGU Meeting)	2024 - Present
Book: Memories of Professor Don Helmberger Master of Seismology and Mentor Extraordinaire 2023	

## AFFILIATIONS/MEMBERSHIPS

American Geophysical Union (AGU)	2019 - Present
Japan Geosciences Union (JpGU)	2024 - Present
Seismological Society of America (SSA)	2025 - Present
Seismological Society of Japan (SSJ)	2024 - Present

## TEACHING EXPERIENCE

<b>Teaching Assistant:</b> Geophysics Essay Writing in English	Spring 2021
Earthquake Observation Internship	Spring 2018
<b>Research Mentoring:</b> Peking Univ. undergraduate student Yan Pei	2022-2023
Peking Univ. visiting undergraduate student Lemeng Wang (Univ. of Toronto)	2024

## SOFTWARE

Auto-FtCluster: Determine the geometry of fault using earthquake location and focal mechanism

## COMPUTER AND SKILLS

**Programming:** Python, Matlab, Bash,  $\text{\LaTeX}$

**Software:** GMT, SAC, Obspy, HypoDD, Hypoinverse, Template Matching, ETAS, HASH

## FIELD EXPERIENCE

Aanninghe-Zemuhe Array, 161 short-period seismometers, lead field student	2020-2021
Longmenshan Array of small Array: 50 short-period seismometers, lead field student	2018-2020