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Education

Ph.D., Geophysics, California Institute of Technology	Aug 2012
M.S., Geophysics, California Institute of Technology	May 2009
B.S., Geosciences, Nanjing University, China	June 2007

Appointments

• Professor of Geophysics, Earth, Planetary and Space Sciences, UCLA	Since 2025
• Associate Professor of Geophysics, Earth, Planetary and Space Sciences, UCLA	2019-2025
• Assistant Professor of Geophysics, Earth, Planetary and Space Sciences, UCLA	2014-2019
• Earthquake Physics Postdoc Fellow, Berkeley Seismo Lab, U.C. Berkeley.	2012-2013

Recognitions

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- NSF CAREER AWARD, National Science Foundation, 2019
 - Hellman Fellowship Award, UCLA, 2015
 - The Leon and Joanne V.C. Knopoff Chair in physics and geophysics, UCLA, 2014
 - Student Presentation Award, SSA (Seismological Society of America), 2012.
 - Best Young Scientist Award, CTBT (Comprehensive Nuclear Test-Ban Treaty), 2011.
 - Frontiers in Geochemistry Fellowship, Caltech, 2007-2008.
 - Fundamental Geosciences Scholarship, Nanjing University, 2003-2006.

Publications

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- (64) Zhang, Y., Guo, R., Tang, X., He, H., Meng, L., Li, L., Xu, J., & Sun, H. (2026). Dual-fault rupture and thermo-mechanical setting of the 2025 Dingri earthquake (southern Tibet). *Seismological Research Letters*, XX, 1–14. <https://doi.org/10.1785/0220250141> [doi] [pdf]
- (63) Ma, J.-Z., Meng, L., Yin, H., Bai, Y., Li, Z., Ai, Y., (2026). Multiscale fault complexity and hydrothermal processes drive earthquake swarms in the Tengchong Volcanic Field, Southeastern Tibetan Plateau. *Tectonophysics*, Article 231080. <https://doi.org/10.1016/j.tecto.2026.231080> [doi] [pdf]
- (62) Xu, L., Meng, L., Yunjun, Z., Yang, Y., Wang, Y., Hu, C., Weng, H., Xu, W., Su, E., & Ji, C. (2025). Bimaterial effect and favorable energy ratio enabled supershear rupture in the 2025 Mandalay earthquake. *Science*. <https://doi.org/ady6100> [doi] [pdf] [UCLA press release]
- (61) Xu, L., Meng, L., Chu, R., PKIKP Phase Back-Projection and Its Application on Southern Hemisphere Earthquake Imaging, 2025, *Journal of Geophysical Research*: e2025JB031667. <https://doi.org/10.1029/2025JB031667> [doi] [pdf]
- (60) Calais, E., Delouis, B., Ampuero, J.-P., Bao, H., Courboux, F., Deschamps, A., de Lépinay, B., Monfret, T., Meng, L., Xu, L., DeMets, C., Gonzalez, O. L., Arango-Arias, E., Moreno, B., Palau, R., Cutie, M., Diez, E., Roche, E., Garcia, J., Castellanos, E., Symithe, S., & Williams, P.,

2025. The 28 January 2020, Mw7.7, Cayman Trough / Oriente Fault, supershear earthquake rupture. *Seismica*. (Accepted) [doi] [pdf]

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(58) Xu, L., Meng, L., Xu, W., Lin, Y.-Y., Geng, J., Mohanna, S., & Kawamoto, G. (2025). Unzipping of the conjugate fault system during the 2024 Mw7.4 Hualien earthquake. *Geophysical Research Letters*, 52, e2025GL115218. [doi] [pdf]

(57) Xu, L., Ji, C., Meng, L., Ampuero, J.P., Yunjun, Z., Mohanna, S. and Aoki, Y., 2024. Dual-initiation ruptures in the 2024 Noto earthquake encircling a fault asperity at a swarm edge. *Science*, 385(6711), pp.871-876.

(56) Xie, Y., Mohanna, S., Meng, L., Zhou, T. and Ho, T.C., 2023. Adjoint Inversion of Near-Field Pressure Gauge Recordings for Rapid and Accurate Tsunami Source Characterization. *Earth and Space Science*, 10(12), p.e2023EA003086. [pdf] [supplement] [doi]

(55) Xu, L., Mohanna, S., Meng, L., Ji, C., Ampuero, J.P., Yunjun, Z., Hasnain, M., Chu, R. and Liang, C., 2023. The overall-subshear and multi-segment rupture of the 2023 Mw7. 8 Kahramanmaraş, Turkey earthquake in millennia supercycle. *Communications Earth & Environment*, 4(1), p.379. [pdf] [supplement] [doi]

(54) Zhang, Y., Bao, H., Meng, L. and Aoki, Y., 2023. Understanding and Mitigating the Spatial Bias of Earthquake Source Imaging With Regional Slowness Enhanced Back-Projection. *Journal of Geophysical Research: Solid Earth*, 128(5), p.e2022JB025525. [pdf] [supplement] [doi]

(53) Xu, L., Yunjun, Z., Ji, C., Meng, L., Fielding, E.J., Zinke, R. and Bao, H., 2023. Understanding the Rupture Kinematics and Slip Model of the 2021 Mw 7.4 Maduo Earthquake: a Bilateral Event on Bifurcating Faults. *Journal of Geophysical Research: Solid Earth*, p.e2022JB025936. [doi]

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(51) Xie, Y., Meng, L., Zhou, T., Xu, L., Bao, H., & Chu, R. (2022). The 2021 Mw 7.3 East Cape earthquake: Triggered Rupture in Complex Faulting Revealed by Multi-Array Back-projections. *Geophysical Research Letters*, e2022GL099643. [pdf] [supplementary][doi]

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(42) Feng, T., Meng, L., & Huang, H., 2020 "Detecting Offshore Seismicity: Combining Backprojection Imaging and Matched-filter Detection". *Journal of Geophysical Research: Solid Earth*, e2020JB019599.

(41) Xie, Y., & Meng, L., 2020. "A multi-array back-projection approach for tsunami warning". *Geophysical Research Letters*, 47(14), e2019GL085763.

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