Curriculum Vitae August 2022

Junle Jiang

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RESEARCH INTERESTS

I am interested in studying the multi-scale dynamic processes in Earth's crust and understanding their mechanisms, predictability, and societal impacts, with the ultimate goals to improve the assessment and mitigation of geo-hazards and safe, sustainable exploration of geo-energy. Our current projects are focused on microseismicity, large earthquakes, and crustal deformation due to tectonic and human activities over timescales from seconds to centuries, through integrating laboratory rock mechanics insights, theoretical and computational models, along with seismic and geodetic observations from Global Navigation Satellite System (GNSS) and Interferometric Synthetic Aperture Radar (InSAR).

EDUCATION

2016	**Ph.D.**, Geophysics	California Institute of Technology, USA
2014	**Ph.D. Minor**, Computational Science and Engineering	California Institute of Technology, USA
2011	**M.Sc.**, Geophysics	California Institute of Technology, USA
2009	**B.Sc.**, Physics	Peking University, China

APPOINTMENTS

2020/08–current	**Assistant Professor**, School of Geosciences, University of Oklahoma
2018/06–2020/07	**Postdoctoral Associate**, Department of Earth and Atmospheric Sciences, Cornell University
2016/02–2018/05	**Green Postdoctoral Scholar**, Scripps Institution of Oceanography, University California San Diego
2009/09–2015/12	**Research and Teaching Assistant**, Seismological Laboratory, California Institute of Technology

PHD DISSERTATION

Jiang, J. (2016), Probabilistic Imaging and Dynamic Modeling of Earthquake Source Processes, California Institute of Technology. doi:10.7907/Z9639MQC. (Advisors: M. Simons & N. Lapusta)

REFEREED PUBLICATIONS

First- to Third-Authored Publications

1. Materna, K., Barbour, A., **Jiang, J.**, and Eneva, M. (2022) Detection of aseismic slip and poroelastic reservoir deformation at the North Brawley Geothermal Field from 2009-2019, *J. Geophys. Res. Solid Earth*. 127, e2021JB023335, doi:10.1029/2021JB023335. (19+17 pages)
2. **Jiang, J.**, Erickson, B., Lambert, V., Ampuero, J.-P., Ando, R., Barbot, S., Cattania, C., Dal Zilio, L., Duan, B., Dunham, E., Gabriel, A-A., Lapusta, N., Li, D., Li, M., Liu, D., Liu, D., Liu, Y., Ozawa, S., Pranger, C., van Dinther, Y. (2022). Community-driven code comparisons for three-dimensional dynamic modeling of sequences of earthquakes and aseismic slip (SEAS), *J. Geophys. Res. Solid Earth,* 127, e2021JB023519, doi:10.1029/2021JB023519. (30 pages) Media Coverage: EOS Research Spotlight.
3. **Jiang, J.**, Bock, Y., and Klein, E. (2021). Coevolving early afterslip and aftershock signatures of a San Andreas fault rupture, *Science Advances*, 7, doi:10.1126/sciadv.abc1606. (16+21 pages) Media Coverage: OU News.
4. **Jiang, J.**, and Lohman, R. B. (2020). Coherence-guided InSAR deformation analysis in the presence of ongoing land surface changes in the Imperial Valley, California. *Remote Sens. Environ.*, 112160, doi:10.1016/j.rse.2020.112160. (19+29 pages)
5. Erickson, B.*, **Jiang, J.***, Barall, M., Lapusta, N., Dunham, E. M., Harris, R., Abrahams, L., Allison, K., Ampuero, J.-P., Barbot, S., Cattania, C., Elbanna, A., Fialko, Y., Idini, B., Kozdon, J., Lambert, V., Liu, Y., Luo, Y., Ma, X., Segall, P., Shi, P., and Wei, M.

(2020). The community code verification exercise for simulating sequences of earthquakes and aseismic slip (SEAS), *Seismo. Res. Lett., 91*(2A), 874–890, doi:10/10.1785/0220190248. (*equal contributions) (17 pages)

6. Tymofyeyeva, E., Fialko, Y., **Jiang, J.**, Xu, X., Sandwell, D., Bilham, R., Rockwell, T. K., Blanton, C., Burkett, F., Gontz, A., and Moafipoor, S. (2019). Slow slip event on the southern San Andreas fault triggered by the 2017 Mw8.2 Chiapas (Mexico) earthquake. *J. Geophys. Res. Solid Earth*, 124, doi:10.1029/2018JB016765. (20+18 pages) Media Coverage: EOS Research Spotlight.
7. Xu, X., Ward, L., **Jiang, J.**, Smith-Konter, B., Tymofyeyeva, E., Lindsey, E., Sylvester, A. G., and Sandwell, D. T. (2018). Surface creep rate of the Southern San Andreas Fault modulated by stress perturbations from nearby large events, *Geophys. Res. Lett., 45*, 10259–10268, doi:10.1029/2018GL080137. (10+9 pages)
8. **Jiang, J.** and Lapusta, N. (2017). Connecting depth limits of interseismic locking, microseismicity, and large earthquakes in models of long-term fault slip, *J. Geophys. Res. Solid Earth, 122*, 6491–6523, doi:10.1002/2017JB014030. (33 pages)
9. Fan, W., Bassett, D., **Jiang, J.**, Shearer, P. M., and Ji, C. (2017). Rupture evolution of the 2006 Java tsunami earthquake and the possible role of splay faults, *Tectonophysics*, *721*, 143–150, doi:10.1016/j.tecto.2017.10.003. (8+8 pages)
10. **Jiang, J.** and Simons, M. (2016). Probabilistic imaging of tsunamigenic seafloor deformation during the 2011 Tohoku-oki Earthquake, *J. Geophys. Res. Solid Earth*, *121*, 9050–9076, doi:10.1002/2016JB013760. Media Coverage: EOS Research Spotlight. (27+6 pages)
11. **Jiang, J.** and Fialko, Y. (2016). Reconciling seismicity and geodetic locking depths on the Anza section of the San Jacinto fault, *Geophys. Res. Lett.*, *43*, 10663–10671, doi:10.1002/2016GL071113. (9+6 pages)
12. **Jiang, J.** and Lapusta, N. (2016). Deeper penetration of large earthquakes on seismically quiescent faults, *Science*, *352*(6291), 1293–1297, doi:10.1126/science.aaf1496. (5+49 pages) Media Coverage: New Yorker, Phys.org.
13. Bletery, Q., Sladen, A., **Jiang, J.**, and Simons, M. (2016). A Bayesian source model for the 2004 great Sumatra-Andaman earthquake, *J. Geophys. Res. Solid Earth*, *121*, 5116–5135, doi:10.1002/2016JB012911. (20+22 pages)
14. Duputel, Z., **Jiang, J.**, Jolivet, R., Simons, M., Rivera, L., Ampuero, J.-P., Riel, B., Owen, S. E., Moore, A. W., Samsonov, S. V., Culaciati, F. O., and Minson, S. E. (2015). The Iquique earthquake sequence of April 2014: Bayesian modeling accounting for prediction uncertainty, *Geophys. Res. Lett.*, *42*, 7949–7957, doi:10.1002/2015GL065402. (9+22 pages)

Other Co-Authored Publications

15. Gombert, B., Duputel, Z., Jolivet, R., Simons, M., **Jiang, J.**, Liang, C., Fielding, E. J., and Rivera, L. (2018). Strain budget of the Ecuador–Colombia subduction zone: A stochastic view, *Earth Planet. Sci. Lett.*, *498*, 288–299, doi:10.1016/j.epsl.2018.06.046. (12+14 pages)
16. Michel, S., Avouac, J.-P., Lapusta, N., and **Jiang, J.** (2017). Pulse-like partial ruptures and high-frequency radiation at creeping-locked transition during megathrust earthquakes, *Geophys. Res. Lett.*, *44*, 8345–8351, doi:10.1002/2017GL074725. (7+10 pages)
17. Yue, H., Simons, M., Duputel, Z., **Jiang, J.**, Fielding, E., Liang, C., Owen, S., Moore, A., Riel, B., Ampuero, J. P., and Samsonov, S. V. (2016). Depth varying rupture properties during the 2015 Mw 7.8 Gorkha (Nepal) earthquake, *Tectonophysics, 714–715*, 44-54, doi:10.1016/j.tecto.2016.07.005. (11+21 pages)
18. Bletery, Q., Sladen, A., Delouis, B., Vallée, M., Nocquet, J.-M., Rolland, L., and **Jiang, J.** (2014). A detailed source model for the M_w 9.0 Tohoku-Oki earthquake reconciling geodesy, seismology, and tsunami records, *J. Geophys. Res. Solid Earth*, *119*, 7636–7653, doi:10.1002/2014JB011261. (18+17 pages)
19. Minson, S. E., Simons, M., Beck, J. L., Ortega, F., **Jiang, J.**, Owen, S. E., Moore, A. W., Inbal, A., and Sladen, A.(2014). Bayesian inversion for finite fault earthquake source models - II: the 2011 great Tohoku-oki, Japan earthquake, *Geophys. J. Int.*, *198*(2), 922–940. doi:10.1093/gji/ggu170. (19 pages)
20. Wei, S., Graves, R., Helmberger, D. V., Avouac, J.-P., and **Jiang, J.** (2012). Sources of shaking and flooding during the Tohoku-Oki earthquake: A mixture of rupture styles, *Earth Planet. Sci. Lett.*, *333-334*(C), 91–100, doi:10.1016/j.epsl.2012.04.006. (10 pages)
21. Simons, M., Minson, S. E., Sladen, A., Ortega, F., **Jiang, J.**, Owen, S. E., Meng, L., Ampuero, J. P., Wei, S., Chu, R., Helmberger, D. V., Kanamori, H., Hetland, E., Moore, A. W., and Webb, F. H. (2011). The 2011 magnitude 9.0 Tohoku-oki earthquake: Mosaicking the megathrust from seconds to centuries, *Science*, *332*(6036), 1421–1425, doi:10.1126/science.1206731. (5+45 pages)

DATASETS

1. **Jiang, J.**, Erickson, B. et al. (2021). Simulation Data for "Community-Driven Code Comparisons for Three-Dimensional Dynamic Modeling of Sequences of Earthquakes and Aseismic Slip (SEAS)" [Data set]. In *Journal of Geophysical Research*. Zenodo. doi:10.5281/zenodo.6299674.
2. Materna, K., Barbour, A., **Jiang, J.**, and Eneva (2022), Geodetic displacement data near North Brawley Geothermal Field, 2009-2019. Zenodo. doi:10.5281/zenodo.5949377.
3. **Jiang, J.**, Bock, Y., and Klein, E. (2021). Data for "Coevolving early afterslip and aftershock signatures of a San Andreas fault rupture" [Data set]. In *Science Advances*. Zenodo. doi:10.5281/zenodo.4278477.
4. **Jiang, J.**, and Lohman, R. (2020). Data for "Coherence-guided InSAR deformation analysis in the presence of ongoing land surface change in the Imperial Valley, California" [Data set]. In *Remote Sensing of Environment*. Zenodo. doi:10.5281/zenodo.3911193.
5. **Jiang, J.** and Simons, M. (2016). Data for "Probabilistic imaging of tsunamigenic seafloor deformation during the 2011 Tohoku-oki Earthquake" [Data set]. In *J. Geophys. Res. Solid Earth*. Zenodo. doi:10.5281/zenodo.6896262

WHITE PAPERS

Lapusta, N., et al. (including J. Jiang), 2019. Modeling Earthquake Source Processes: from Tectonics to Dynamic Rupture, Report to the National Science Foundation. http://seismolab.caltech.edu/pdf/MESP_White_Paper_Main_Text_8_March_2019.pdf

PUBLICATIONS IN PROGRESS

1. Erickson, B. A., **Jiang, J.**, Lambert, V. R., Abdelmeguid, M., Almquist, M., Ampuero, J., Ando, R., Barbot, S. D., Cattania, C., Chen, A., Dal Zilio, L., Dunham, E. M., Elbanna, A. E., Gabriel, A., Harvey, T., Huang, Y., Kaneko, Y., Kozdon, J. E., Lapusta, N., Li, D., Li, M., Liang, C., Liu, Y., Ozawa, S., Pranger, C., Segall, P., Sun, Y., Thakur, P., Uphoff, C., van Dinther, Y., & Yang, Y., Incorporating Full Elastodynamic Effects and Dipping Fault Geometries in Community Code Verification Exercises for Simulations of Earthquake Sequences and Aseismic Slip (SEAS), in review at *Bull. Seismol. Soc. Amer*. Preprint: https://doi.org/10.31223/X5NP87.
2. Caballero, E., Duputel, Z., Twardzik, C., Klein, E., Aochi, H., **Jiang, J.**, Liang, C., Zhu, L., Jolivet, R., Fielding, E., Simons, M., Revisiting the 2015 Mw=8.3 Illapel earthquake: From kinematic rupture inversion to rupture dynamics. in prep.
3. **Jiang, J.** and Lapusta, N., Influence of depth-dependent fault rock permeability and shear zone width on large earthquake rupture, arrest, and recurrence patterns, in prep.
4. **Jiang, J.**, Ragon, T., Liang, C., and Simons, M., Bayesian inference of megathrust faulting during and after the 2010 Maule earthquake: 1. Quantifying uncertainty, resolution, and information content in multi-dataset inversions, in prep.
5. **Jiang, J.** , Ragon, T., Liang, C., and Simons, M., Bayesian inference of megathrust faulting during and after the 2010 Maule earthquake: 2. Characterizing source processes in three-dimensional subduction zone structures, in prep.
6. Regmi, N., **Jiang, J.**, Walter, J., and Hayman, N., Mapping landslides in Oklahoma and Arkansas with optical and synthetic aperture radar imagery, in prep.
7. **Jiang, J.**, F. Hofmann, J. L. Kirschvink et al., Emergence of molluscan grazing notches in uplifted coral atolls at Palau: Potential paleoseismic or paleoclimatic markers? in prep.

SELECTED CONFERENCE ABSTRACTS

1. **Jiang, J.**, Erickson, B., Lambert, V., Abdelmeguid, M., Almquist, M., Ampuero, J.-P., Ando, R. Barbot, S., Cattania, C., Chen, A., Dal Zilio, L., Duan, B., Dunham, E. M., Elbanna, A. E., Gabriel, A.-A., Harvey, T., Huang, Y., Kaneko, Y., Kozdon, J. E., Lapusta, N., Li, D., Li, M., Liang, C., Liu, D., Liu, Y., Ozawa, S., Pranger, C., Segall, P., Sun, Y., Thakur, P., Uphoff, C., van Dinther, Y., Yang, Y. (2021, December). Community Code Verification Exercises for Simulations of Earthquake Sequences and Aseismic Slip (SEAS): 3D Effects, Fully Dynamic Ruptures, and Dipping Fault Geometries. In *AGU Fall Meeting 2021*. (Poster presentation)
2. Eiden, E., Devlin, K., Burgi, P., MacQueen, P., Headlam, C., Brill, K.A., Carrillo, C.M., Hamilton, D.S.S., **Jiang., J.**, Barcheck, G. and Hitchcock, P., 2020, December. The IDEEAS Working Group at Cornell University: A New Framework of Collective

Leadership for Promoting Justice, Equity, Diversity, and Inclusion in the Geosciences. In *AGU Fall Meeting Abstracts* (Vol. 2020, pp. ED015-0008) (Poster Presentation). Preprint: doi:10.1002/essoar.10505326.1.

3. **Jiang., J.**, and Lohman, R. B., Characterizing tectonic and anthropogenic ground deformation history in the Imperial Valley, California, using Sentinel-1 InSAR time series, AGU Fall Meeting, San Francisco, CA, Dec. 2019 (Oral Presentation).
4. **Jiang., J.** (2019), Perspectives from the SCEC Sequences of Earthquakes and Aseismic Slip (SEAS) Project, SCEC workshop on "How Physics-Based Earthquake Simulators Might Help Improve Earthquake Forecasts," June 18, 2019 (Invited Oral Presentation).
5. **Jiang., J.**, Bock, Y., and E. Klein, Imaging slip evolution on the San Andreas fault due to the 2004 Parkfield earthquake, AGU Fall Meeting, Washington D.C., Dec. 2018 (Oral Presentation).
6. **Jiang., J.**, and Erickson, B. A. Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS). SCEC Annual Meeting, Sept. 2018 (Invited Oral Presentation).
7. **Jiang., J.** and Fialko, Y., Mechanisms of unsteady shallow creep on major crustal faults, AGU Fall Meeting, New Orleans, LA, Dec. 2017 (Oral Presentation).
8. **Jiang., J.** and Simons, M., Multiscale probabilistic imaging of tsunamigenic seafloor deformation during the 2011 Tohoku-oki earthquake, SSA Fall Meeting, Denver, CO, Apr. 2017 (Invited Oral Presentation).
9. Kirschvink, J. and **Jiang, J.**, Potential Seismic and Tsunami Hazard from the Palau Trench, as viewed from molluscan grazing notches in uplifted coral atolls, GSA Annual Meeting, Oct. 2014 (Oral Presentation).
10. **Jiang., J.**, Lapusta, N. and Noda, H., Re-evaluating the seismogenic potential of creeping fault regions: implications from models with rate-and-state friction and enhanced coseismic weakening, AGU Fall Meeting, San Francisco, CA, USA, Dec. 2013 (Invited Oral Presentation).

INVITED TALKS

2022/12	AGU Fall Meeting, Chicago, CA
2022/08	Earth and Planetary Sciences Summer School, Zhejiang University, Online
2022/06	SAGE/GAGE Community Science Workshop, Pittsburgh, PA
2022/01	Department of Geosciences Seminar, University of Montana, Online
2021/11	Earthquake Physics Seminar, University of Southern California, Online
2021/10	Berkeley Seismology Laboratory Seminar, University of California Berkeley, Online
2021/09	GeoSeminar, Department of Geosciences, University of Tulsa, Online
2021/07	Earthquake Science Center Seminar, United States Geological Survey, Online
2020/03	Shell Colloquium, School of Geosciences, University of Oklahoma, Norman, OK
2019/09	Andes Seminar, Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY
2019/06	SCEC Workshop about Physics-Based Earthquake Simulators, Menlo Park, CA
2019/03	Dept. Earth, Atmospheric & Planetary Sciences, Massachusetts Institute of Technology, Cambridge, MA
2018/09	Keynote Talk, Southern California Earthquake Center Annual Meeting, Palm Springs, CA
2018/03	Department of Geology and Geophysics, Woods Hole Oceanographic Institution, Falmouth, MA
2017/04	SSA Fall Meeting, Denver, CO
2017/03	Department of Earth, Planetary, and Space Sciences, University of California Los Angeles, CA
2016/03	Geophysics Seminar, Scripps Institution of Oceanography, University of California San Diego, CA
2013/12	AGU Fall Meeting, San Francisco, CA

HONORS AND AWARDS

2016–2018	**Green Postdoctoral Fellowship**, Institute of Geophysics and Planetary Physics, Scripps Institution of Oceanography, University California San Diego

2016	**Graduate Student Office Leadership Award**, California Institute of Technology
2016	**Demetriades-Tsafka-Kokkalis Best Thesis Prize in Seismo-Engineering, Prediction, and Protection**, California Institute of Technology
2015	**Chinese Government Award for Outstanding Self-Financed Students Abroad**
2015	**Outstanding Student Paper Award**, Tectonophysics Section, American Geophysical Union
2009	**Honor for Excellent Graduate**, Peking University
2007	**Petro China Scholarship,** Peking University
2007	**Dean's List Award for Academic Excellence**, Hong Kong University of Science and Technology
2006	**Cannon Scholarship**, Peking University

FUNDED RESEARCH AND WORKSHOPS

SCEC: Southern California Earthquake Center; **NASA**: National Aeronautics and Space Administration; **NSF**: National Science Foundation; **USGS**: United States Geological Survey.

Current Research Grants

2022/08–2025/07	**NSF Geophysics, PI**, Constraining rupture and relaxation dynamics of crustal fault roots with geodetic and microseismic observations, $306,000
2022/02–2023/01	**SCEC, PI**, Geodetic imaging of earthquakes, fault creep, deformation, and coastal changes at the southern Salton Sea over two decades, $28,000
2022/02–2023/01	**SCEC, PI** (w/ B. Erickson & V. Lambert), Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS), $56,000

Past Research Grants

2020/02–2022/01	**SCEC**, **PI**, Distinguishing between tectonic and anthropogenic processes in the Salton Sea Geothermal Field, $27,000
2018/02–2022/01	**SCEC, PI** (w/ B. Erickson), Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS), $45,000/$50,000/$56,000/$56,000 in each year
2018/02–2019/01	**SCEC, Co-PI** (PI: Y. Fialko), Mechanisms of unsteady shallow creep on major crustal faults, $28,000.
2017/02–2018/01	**SCEC, Co-PI** (PI: Y. Fialko), Microseismicity, geodetic coupling, and earthquake variability on heterogeneous faults: A case study of the Anza section of the San Jacinto Fault, $28,000
2017/09–2021/06	**Extreme Science and Engineering Discovery Environment (XSEDE)**, **PI,** Integrated Simulation of Dynamic Earthquakes and Crustal Deformation, 120K computing units
2016/02–2017/01	**SCEC, Co-PI** (PI: Y. Fialko), Reconciling seismic and geodetic locking depths on the Anza segment of the San Jacinto Fault, $28,000

Other Non-PI Collaborative Grants

2023/09–2026/08	**NSF Cultural Transformation in the Geoscience Community, Co-PI** (PI: H. Bedle & 14 other Co-PIs), Planning grant: Building community in the Geosciences by focusing on undergraduate research for transfer students, $297,711
2022/09–2024/08	**NSF Centers for Innovation and Community Engagement in Solid Earth Geohazards, Collaborator**, Track I - Center Catalyst: Geohazards Away from Plate Boundaries (GAPS), $500,000

Workshop Grants

2021/11/02	**SCEC, PI (w/ B. Erickson)**. Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Fluids, 3D modeling, and Future Directions". Website.
2020/10/30	**SCEC, PI (w/ B. Erickson)**. Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Free-Surface effects in 2D/3D models. Website.

2020/01/09 **SCEC, PI (w/ B. Erickson)**. Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Full Dynamics and 3D Effects. Website.

2018/11/29 **SCEC, PI (w/ B. Erickson)**. Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Exploring Complexity and Resolution. Website.

2018/04/23 **SCEC, PI (w/ R. Harris, B. Erickson)**. A Joint Workshop: Rupture Dynamics Code Validation and Comparing Simulations of Earthquake Sequences and Aseismic Slip. Website.

TEACHING EXPERIENCE

UG: Undergraduate Students. **G**: Graduate Students.

Instructor, University of Oklahoma

2023S GPHY2013 Frontiers in Geophysics [UG](w/ S. Saneiyan, H. Bedle, J. Walter, & J. Pigott)

2023S GPHY3013 Data Analysis for Geoscience [UG]

2022F GPHY5413 Global Geophysics [UG, G]

2022S GPHY4553 Introduction to Seismology [UG, G]

2021F/2022S/F GPHY5970 Geophysical Journal Seminar [G]

2021F GPHY6970 Machine Learning in Geosciences Seminar [UG, G](w/ H. Bedle & M. Pranter)

2021F GPHY5970 Remote Sensing for Crustal Geophysics [G]

2021S/2023S GPHY5920 Computational Geophysics [G]

2021S/2022S GPHY3440 Mentored Research Experience [UG]

2020F/2022S GEOL1114 Physical Geology for Scientists and Engineers [UG]

Guest Lecturer, Cornell University

2019S/2020S EAS2550 Satellite-Based Remote Sensing [UG] — Rowena Lohman

2019S EAS7800 Earthquake Record Reading [G] — Geoffrey Abers

2020S Teaching & Learning in the Diverse Classroom Course

Guest Lecturer, Scripps Institution of Oceanography

2017S/2018S SIOG237 Space Geodesy [G] — Yuri Fialko & David Sandwell

Graduate Teaching Assistant, California Institute of Technology

2014S Ge11d/102 Introduction to Geophysics [UG] — Robert Clayton & Mike Gurnis

2012F Ge263 Computational Geophysics [G] — Jean-Paul Ampuero, Robert Clayton & Mike Gurnis

2011F Ge161 Plate Tectonics [G] — Joann Stock

2011S Ae/ME/Ge266 Dynamic Rupture and Frictional Faulting [G] — Nadia Lapusta

STUDENT ADVISING/MENTORING

Thesis/Dissertation/Research Advisor

2021/08–current Segun Steven Bodunde (PhD)

2021/08–current Haoyu Li (MS)

2021/01–current Ganiyat Shodunke (PhD)

2022/01–current Alex Vera Arroyo ("2nd project" PhD, advised by Dr. H. Bedle)

Thesis/Dissertation Committee Member

2022/02–current Rachel Neher (PhD)

2022/03–current Raymond Ng (PhD)

2020/10–2021/06 Jiewen Zhang (PhD)

Undergraduate/Graduate Research Mentor

2022/05–08	Calvin Rutkauskas (OU; BS in Geography & Minor in Geology): SAR analysis of land disturbances
2017/09–2018/05	Gillian Quiros (UCSD; BS in Mathematics): Modeling nonlinear spring-slider system dynamics
2012 Summer	Xander Zheng (Caltech; BS in Computing and Mathematical Sciences): InSAR analysis of LA aquifers
2011 Summer	Patrick Ferchaud (École Polytechnique; MS in Geophysics): BEM modeling

FIELD EXPERIENCE

2016–2018 Sept.	Campaign GPS survey for the San Jacinto fault, Anza, CA, PI: Y. Fialko, UCSD/SIO
2017 Mar.	Rock sample collection and structure mapping of rock islands, Palau, PI: J. Kirschvink, Caltech
2016 Apr.	Seismic deployment at Anza, California, PI: F. Vernon, UCSD/SIO
2011 Dec.	Campaign GPS survey across central Taiwan, PI: S.-B. Yu, Academia Sinica
2011 Mar.	Seismic survey, Salton Seismic Imaging Project (SSIP), PI: J. Stock, Caltech

PROFESSIONAL SERVICE

University of Oklahoma (OU)/Mewbourne College of Earth and Energy (MCEE)/School of Geosciences(SOG)

2022–current	Faculty Liaison, AGU Bridge Program
2021–current	Member, MCEE Diversity, Equity, Inclusion Council
2022–current	Institutional Representative (Secondary), EarthScope Consortium
2022–current	Institutional Representative, Southern California Earthquake Center (SCEC)
2022–current	Institutional Representative, Computational Infrastructure for Geodynamics (CIG)
2021–current	Institutional Representative, UNAVCO WInSAR
2021–current	Member, OU Data Institute for Societal Challenges (DISC)
2021–current	Member, OU Reflection Seismology Centennial Committee
2021–current	Member, SOG Student Awards Committee
2022–current	Member, SOG Computer Lab 1010 Committee
2021–current	Member, SOG Teaching Evaluation Committee
2020–current	Member, SOG Graduate Admission & Affairs Committee
2020–current	Member, SOG Computing Committee
2022–2023	Member and DEI Advocate, SOG Seismology Search Committee
2021F, 2022F	Organizer, SOG Virtual Open House for Prospective Graduate Students
2020–2021	Member and DEI Advocate, SOG Environmental Geophysics Search Committee
2020F	Member, SOG Petroleum Geosciences Vision Committee
2020F	Editor, SOG Application to AGU Bridge Program Partnership

Cornell University, Department of Earth and Atmospheric Sciences

2019–2020	Founding Member, Inclusion, Diversity, and Equity in Earth and Atmospheric Sciences (IDEEAS)
2018–2019	Awardee, Postdoctoral Leadership Program, Cornell University

Other Professional and Synergistic Activities

Proposal Reviewer	NSF Geophysics Program (ad hoc & panel), DFG (Deutsche Forschungsgemeinschaft; ad hoc), NASA (panel), and USGS Earthquake Hazards Program (panel).
Journal Reviewer	Geophysical Research Letters (4), Journal of Geophysical Research - Solid Earth (16), Geophysical Journal International (6), Earth and Planetary Science Letters (1), Scientific Reports (1), Bulletin of the Seismological Society of America (1), Seismological Research Letters (3), Earth Planets and Space (2), Earth and Space

	Science (1), Pure and Applied Geophysics (8), Tectonophysics (2), Remote Sensing (22), Geosciences (2), Energies (8), Sensors (3), Earthquake Science (1), Applied Sciences (5), etc.
2017–current	Co-Leader, Community Code Verification Initiative for Numerical Simulations of SEAS (Sequences of Earthquakes and Aseismic Slip), Southern California Earthquake Center (SCEC)
2017–2022	Liaison/Judge, Outstanding Student Paper Award (OSPA) of AGU Annual Meeting
2021 Dec.	Chair, "State-of-the-Art Observations and Modeling of Earthquake Source Processes" Oral Sessions at AGU Annual Fall Meeting, New Orleans, LO
2022/03–08	Mentor, Asian Americans and Pacific Islanders in Geosciences (AAPIiG) Mentoring Pod Program
2016–2018	Organizer, Geophysics Seminar, IGPP/SIO/UCSD
2011–2012	Organizer, Dix Seismological Laboratory Seminar, Caltech
2011–2015	Event Organizer and Speaker, International Student Programs & Center for Diversity, Caltech
2011–2014	Member, Board of Directors, Graduate Student Council, Caltech
	Option Representative for Geophysics (2011–2013); Under-Represented Student Advocate (2011–2013); Treasurer (2012–2013); Director at Large (2013–2014)
2010–2012	Executive Committee, Chinese Students and Scholars Association, Caltech
	Director for Sports and Outdoor Activities (2010–2011); President (2011–2012)

EDUCATION OUTREACH

2022/03	Geoscience Day, University of Oklahoma, Norman, OK
2021/07	Seminar speaker, Science Museum Oklahoma, Oklahoma City, OK
2016–2017	Seminar speaker, Birch Aquarium, Scripps Institution of Oceanography, UCSD
2010–2015	Tour leader for K-12 students, Tectonic Observatory & Seismological Laboratory, Caltech
2011–2012	Invited speaker, Huntington Middle School, San Marino, CA
2010–2011	Teaching assistant and speaker, Blair High School, Pasadena, CA

PROFESSIONAL SOCIETY/COMMUNITY MEMBERSHIP

2009–current	Southern California Earthquake Center (SCEC)
2009–current	American Geophysical Union (AGU)
2012–current	Seismological Society of America (SSA)
2012–current	American Association for the Advancement of Science (AAAS)
2020–current	Society of Exploration Geophysics (SEG)
2020–current	Geothermal Research Council (GRC)
2020–current	National Association of Geoscience Teachers (NAGT)
2020–current	Asian Americans and Pacific Islanders in Geosciences (AAPIiG)
2021–current	National Organization of Gay and Lesbian Scientists and Technical Professionals (NOGLSTP)