Daniel T. Trugman
Curriculum Vitae

Department of Geological Science
Jackson School of Geosciences
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RESEARCH INTERESTS

My research focuses on developing and applying new techniques to analyze large seismic datasets in order to better understand earthquake rupture processes and their links to earthquake hazards. I am broadly interested in leveraging concepts from big data and scientific machine learning to advance earthquake science.

EDUCATION

2017   Ph.D., Earth Sciences – Geophysics Program, University of California, San Diego.
       Thesis title: "Deviant earthquakes: Data-driven Constraints on the Variability in Earthquake Source Properties and Seismic Hazard." Thesis advisor: Peter Shearer.

2015   M.S., Earth Sciences – Geophysics Program, University of California, San Diego.

2013   B.S. (Honors and Distinction), Department of Geophysics, Stanford University.
       Honors thesis title: "A Pseudodynamic Rupture Model Generator for Earthquakes on Geometrically Complex Faults." Honors advisor: Eric Dunham.

PROFESSIONAL APPOINTMENTS

2020 – Present   Assistant Professor, Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin

2018 – 2020   Richard P. Feynman Distinguished Postdoctoral Research Fellow, Earth & Environmental Science Division, Los Alamos National Laboratory

2014 – 2017   NSF Graduate Research Fellow, University of California, San Diego

2013 – 2014   Post-baccalaureate researcher, Geophysics Group, Earth and Environmental Sciences Division, Los Alamos National Laboratory

AWARDS AND RECOGNITION

2020   Editors' Citation for Excellence in Refereeing for *Geophysical Research Letters*

2020   Top Downloaded Paper Award, *Geophysical Research Letters*: awarded for writing a paper downloaded at the top 10% rate during 2018 – 2019 (*Trugman and Ross, 2019*)

2019   Hyperion Research HPC Innovation Excellence Award for the Quake Template Matching Project (*Ross, Trugman et al., Science 2019*)

2019	*Discover Magazine* Top 50 Science Stories of 2019: recognition for work on earthquake detection and foreshock sequences
2019	*Geophysical Research Letters* Editor's Highlight for *Trugman and Ross, 2019*
2018	Richard P. Feynman Postdoctoral Fellowship
2017	Seismological Society of America 2017 Outstanding Student Presentation Award
2016	Achievement Reward for College Scientists (ARCS) Scholarship
2016	Paul G. Silver Young Scholar Research Enhancement Award
2014	National Science Foundation (NSF) Graduate Research Fellowship
2013	David M. Kennedy Prize for Outstanding Undergraduate Honors Thesis
2013	Hoefer Prize for Excellence in Undergraduate Writing
2013	Firestone Medal for Excellence in Undergraduate Research
2013	Stanford Earth Science Dean's Award for Undergraduate Academic Achievement
2013	California Federation of Mineralogical Society's Diedrick Scholarship
2012	Los Alamos National Laboratory Student Symposium Award for Outstanding Student Research: Earth and Space Science
2012	Department of Energy Science Undergraduate Laboratory Internship Award
2009	Los Alamos National Laboratory Employee's Scholarship Platinum Award
2009	J. Robert Oppenheimer Scholar
2009	National Merit Scholar

PEER-REVIEWED PUBLICATIONS

Total = 30, h-index = 11, i10-index = 14 (as of September 2020)
 * = Graduate student author, § = UT postdoc author

30. Wang, W., P. M. Shearer, J. Vidale, X. Xu, **D. T. Trugman**, and Y. Fialko. Distinct spatial patterns of tidal and dynamic triggering at the Coso Geothermal Field. *Nature Geoscience* (in review).

29. Wang[*], T., **D. T. Trugman**, Y. Lin. SeismoGen: Seismic waveform synthesis using generative adversarial networks. *Journal of Geophysical Research: Solid Earth* (in review).

28. Trugman, D. T., I. W. McBrearty[*], D. C. Bolton[*], R. A. Guyer, C. Marone, and P. A. Johnson (2020). The spatiotemporal evolution of granular microslip precursors to laboratory earthquakes. *Geophysical Research Letters*, 47 (16), e2020GL088404, doi: 10.1029/2020GL088404.

27. Ross, Z. E., E. S. Cochran, **D. T. Trugman**, and J. D. Smith (2020). 3D fault architecture controls the dynamism of earthquake swarms. *Science*, 368 (6497), 1357–1361, doi: 10.1126/science.abb0779.

26. **Trugman, D. T** (2020). Stress drop and source scaling of the 2019 ridgecrest, california, earthquake sequence. *Bulletin of the Seismological Society of America*, 110 (4), 1859-1871, doi: 10.1785/012020009.

25. **Trugman, D. T.,** Z. E. Ross, and P. A. Johnson (2020). Imaging stress and faulting complexity through earthquake waveform similarity. *Geophysical Research Letters*, 47 (1), e2019GL085888, doi: 10.1029/2019GL085888.

24. Ross, Z. E., **D. T. Trugman**, K. Azizzadenesheli[*], and A. Anandkumar (2020). Directivity modes of earthquake populations with unsupervised learning. *Journal of Geophysical Research: Solid Earth*, 125 (2), e2019JB018299, doi: 10.1029/2019JB018299.

23. Qin, Y., X. Chen, J. I. Walter, J. Haffener, **D. T. Trugman**, B. M. Carpenter, M. Weingarten, and F. Kolawole (2019). Deciphering the stress state of seismogenic faults in Oklahoma and Southern Kansas based on an improved stress map. *Journal of Geophysical Research: Solid Earth*, 124, 124, 12920– 12934, doi: 10.1029/2019JB018377.

22. **Trugman, D. T.,** and Z. E. Ross (2019). Pervasive foreshock activity across Southern California. *Geophysical Research Letters*, 46 (15), 8772-8781, doi: 10.1029/2019GL083725.

21. Ross, Z. E., **D. T. Trugman,** Hauksson, E., and Shearer, P. M. (2019). Searching for hidden earthquakes in Southern California. *Science*, *364*(6442), 767–771, doi: 10.1126/science.aaw6888.

20. **Trugman, D. T.,** M. T. Page, S. E. Minson, and E. S. Cochran (2019). Peak ground displacement saturates exactly when expected: Implications for earthquake early warning. *Journal of Geophysical Research: Solid Earth*, 124 (5), 4642– 4653, doi: 10.1029/2018JB017093.

19. Shearer, P. M., R. A. Abercrombie, **D. T. Trugman**, and W. Wang (2019). Comparing EGF methods for estimating corner frequency and stress drop from P-wave spectra. *Journal of Geophysical Research: Solid Earth*, 124 (4), 3966-3986, doi: 10.1029/2018JB016957.

18. Kong, Q., **D. T. Trugman**, Z. E. Ross, M. J. Bianco, B. J. Meade, and P. Gerstoft (2019). Machine learning in seismology – Turning data into insights. *Seismological Research Letters*, 90(1), 3-14, doi: 10.1785/0220180259.

17. Koper, K. D., K. L. Pankow, J. C. Pechmann, J. M. Hale, R. Burlacau, W. L. Yeck, H. M. Benz, R. B. Hermann, **D. T. Trugman**, and P. M. Shearer (2018). Afterslip enhanced aftershock activity during the 2017 earthquake sequence near Sulphur Peak, Idaho. *Geophysical Research Letters,* 45, 5352–5361, doi: 10.1029/2018GL078196.

16. **Trugman, D. T.,** and P. M. Shearer (2018). Strong correlation between stress drop and peak ground acceleration for recent M1-M4 seismicity in the San Francisco Bay Area. *Bulletin of the Seismological Society of America*, 108 (2), 929-945, doi: 10.1785/0120170245.

15. **Trugman, D. T.,** S. L. Dougherty, E. S. Cochran, and P. M. Shearer (2017). Source spectral properties of small to moderate earthquakes in Southern Kansas. *Journal of Geophysical Research: Solid Earth*, 122 (10), 8021–8034, doi: 10.1002/2017JB014649.

14. **Trugman, D. T.,** and P. M. Shearer (2017). Application of an improved spectral decomposition method to examine earthquake source scaling in Southern California. *Journal of Geophysical Research: Solid Earth*, 122 (4), 2890–2910, doi: 10.1002/2017JB013971.

13. **Trugman, D. T.,** and P. M. Shearer (2017). GrowClust: A hierarchical clustering algorithm for relative earthquake relocation, with application to the Spanish Springs and Sheldon, Nevada, earthquake sequences. *Seismological Research Letters*, 88 (2A), 379–391, doi: 10.1785/0220160188.

12. **Trugman, D. T.,** P. M. Shearer, A. A. Borsa and Y. Fialko (2016). A comparison of long-term changes in seismicity at The Geysers, Salton Sea, and Coso geothermal fields. *Journal of Geophysical Research: Solid Earth*, 121 (1), 225–247, doi: 10.1002/2015JB012510.

11. Daub, E. G., **D. T. Trugman**, and P. A. Johnson (2015). Statistical tests on clustered global earthquake synthetic data sets. *Journal of Geophysical Research: Solid Earth*, 120 (8), 5693–5716, doi: 10.1002/2014JB011777.

10. **Trugman, D. T.,** C. Wu, R. A. Guyer, and P. A. Johnson (2015). Synchronous low frequency earthquakes and implications for deep San Andreas fault slip. *Earth and Planetary Science Letters*, 424, 132–139, doi: 10.1016/j.epsl.2015.05.029.

9. Wu, C., R. A. Guyer, D. Shelly, **D. T. Trugman**, W. Frank, J. Gomberg, and P. A. Johnson (2015). Spatial-Temporal variation of low-frequency earthquake bursts near Parkfield, California. *Geophysical Journal International*, 202 (2), 914–919, doi: 10.1093/gji/ggv194.

8. **Trugman, D. T.,** A. A. Borsa, and D. T. Sandwell (2014). Did stresses from The Cerro Prieto Geothermal Field influence the El Mayor-Cucapah rupture sequence? *Geophysical Research Letters*, 41 (24), 8767–8774, doi: 10.1002/2014GL061959.

7. **Trugman, D. T.,** and E. M. Dunham (2014), A 2D pseudodynamic rupture model generator for earthquakes on geometrically complex faults. *Bulletin of the Seismological Society of America*, 104 (1), 95–112, doi: 10.1785/0120130138.

6. **Trugman, D. T.,** E. G. Daub, R. A. Guyer, and P. A. Johnson (2013). Modeling dynamic triggering of tectonic tremor using a brittle-ductile friction model. *Geophysical Research Letters*, 40 (19), 5075–5079, doi: 10.1002/grl.50981.

5. Johnson, P. A., B. Ferdowsi, B. M. Kaproth, M. Scuderi, M. Griffa, J. Carmeliet, R. A. Guyer, P.-Y. Le Bas, **D. T. Trugman**, and C. Marone (2013). Acoustic emission and microslip precursors to stick-slip failure in sheared granular material. *Geophysical Research Letters*, 40 (21), 5627–5631, doi: 10.1002/2013GL057848.

4. Perkins, B. G., H. Y. Hwang, N. K. Grady, L. Yan, **D. T. Trugman**, Q. Jia, H. T. Chen, A. J. Taylor, and K. A. Nelson (2013). Nonlinear ultrafast dynamics of high temperature

YBa$_2$Cu$_3$O$_7$–Delta superconductors probed with THz pump / THz probe spectroscopy. *EPJ Web of Conferences,* 41, 03010, doi: 10.1051/epjconf/20134103010.

3. Grady, N. K., B. G. Perkins, H. Y. Hwang, N. C. Brandt, D. Torchinsky, R. Singh, L. Yan, **D. T. Trugman**, S. A. Trugman, Q. X. Jia, A. J. Taylor, K. A. Nelson, and H. T. Chen (2013). Nonlinear high-temperature superconducting terahertz metamaterials. *New Journal of Physics,* 15 (10), 105016, doi: 10.1088/1367-2630/15/10/105016.

2. Budiman, A. S., N. Li, Q. Wei, J. K. Baldwin, J. Xiong, H. Luo, **D. T. Trugman**, Q. X. Jia, N. Tamura, M. Kunz, K. Chen, and A Misra (2011). Growth and structural characterization of epitaxial Cu/Nb multilayers. *Thin Solid Films*, 519(13), 4137–4143, doi: 10.1016/j.tsf.2010.12.077.

1. Xiong, J., V. Matias, H. Wang, J. Y. Zhai, B. Maiorov, **D. T. Trugman**, B. W. Tao, Y. R. Li, and Q. X. Jia (2010). Much simplified ion-beam assisted deposition-tin template for high-performance coated conductors. *Journal of Applied Physics*, 108(8), 083903-083903-4, doi: 10.1063/1.3499270.

OTHER PUBLICATIONS (Comments and White Papers)

3. Ford, H.A., M. Floyd, D.S. Stamps, M. Mendoza, E. Bozdag, D. Bowden, J. Byrnes, W. Fan, H. Kehoe, E. Chaussard, N. J. Lindsey, S. Wei, G. Barcheck, T. S. de Smet, H. Janiszewski, E. Lindsey, J. K. MacCarthy, K. Materna, S. Naif, D. Portner, **D. T. Trugman**, I. Wang (2020). An early career investigator community vision for the future NSF geophysical facility: Data services needs. White Paper, 3 p., doi: 10.6084/m9.figshare.12398321.

2. Evans, E.L., A. Nikulin, H.A. Ford, D.S. Stamps, N. Creasy, J.L. Swiatlowski, E. Chaussard, **D. T. Trugman**, N.J. Lindsey, S. Naif, C. Rollins, K. Materna (2020). An early career investigator community vision for the future NSF geophysical facility: Education, workforce, and outreach needs. White Paper, 3 p., doi: 10.6084/m9.figshare.12398372.

1. Trugman, D. T., G. C. Beroza, and P. A. Johnson (2019). Machine learning in geoscience: Riding a wave of progress. *Eos,* 100, doi: 10.1029/2019EO122671.

CREATIVE PRODUCTS AND SOFTWARE

Open-source Software:

GrowClust: A Computer Program for the Relative Relocation for Earthquake Hypocenters, GNU General Public License v3.0: https://github.com/dttrugman/GrowClust.

INVITED TALKS

Trugman, D. T. (2020). Waveform similarity and earthquake stress drop: What can we learn from the source properties of small earthquakes in the Ridgecrest sequence? *Physics-based Earthquake Forecasting Community Seminar,* UK Research Institution.

Trugman, D. T. (2020). Imaging stress and faulting complexity through earthquake waveform similarity. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA.

Trugman, D. T. (2020). What can small earthquakes tell us about large earthquake ruptures? Insights from the July 2019 Ridgecrest, CA sequence. *University of Texas Department of Geological Sciences Lithosphere and Deep Earth Seminar*, Austin, TX.

Trugman, D. T. (2020). New insights into earthquake rupture processes from high-resolution California datasets. *University of Utah Geophysics Seminar*, Salt Lake City, UT.

Trugman, D. T. (2020). Earthquake waveform similarity as a tool to image stress and fault complexity: Application to the 2019 Ridgecrest earthquake sequence. *Seismological Society of America Annual Meeting*, Albuquerque, NM. [Canceled due to COVID-19].

Trugman, D. T. (2019). New perspectives on earthquake nucleation from megaquakes in Japan and microforeshocks in California. *University of Texas – Austin Jackson School of Geosciences: DeFord Lecture*, Austin, TX.

Trugman, D. T. (2019). New perspectives on earthquake nucleation from megaquakes in Japan and microforeshocks in California. *Harvard Department of Earth and Planetary Sciences Seminar*, Cambridge, MA.

Trugman, D. T. (2019). Earthquake nucleation: Observation and applications from megaquakes in Japan to microforeshocks in California. *California Institute of Technology Seismolab Seminar*, Pasadena, CA.

Trugman, D. T. (2019). Big data, small earthquakes. *Texas A&M Geology Summer School,* Los Alamos, NM.

Trugman, D. T. (2019). Big data, small earthquakes: Insights into earthquake nucleation. *Scripps Institution of Oceanography Seminar,* San Diego, CA.

Trugman, D. T. (2019). Big data, small earthquakes. *Department of Energy Triad Science, Technology, and Energy Review.* Santa Fe, NM.

Trugman, D. T. (2019). Unsupervised learning, a gentle introduction: Clustering the ComCat earthquake catalog using python's scikit-learn package. *Seismological Society of America Annual Meeting: Machine Learning Workshop,* Seattle WA.

Trugman, D. T. (2019). Do large and small earthquakes start alike? Rupture determinism and earthquake early warning. *Los Alamos National Laboratory Earth and Environmental Sciences Division Science Café,* Los Alamos, NM.

Trugman, D. T. and P. M. Shearer (2018). Earthquake stress drop and peak ground motion: A machine learning perspective. *American Geophysical Union Fall Meeting*, Washington DC.

Trugman, D. T. (2018). Machine learning applications to earthquake source characterization and hazard analysis. *US Geological Survey Earthquake Science Center Seminar*, Menlo Park, CA.

Trugman, D. T. (2018). Machine learning applications to earthquake source characterization and hazard analysis. *California Institute of Technology Seismolab Seminar*, Pasadena, CA.

Trugman, D. T. (2018). Characterizing earthquake hazards and source dynamics using machine learning. *Massachusetts Institute of Technology Earth Research Laboratory Seminar*, Cambridge, MA.

Trugman, D. T., S. L. Dougherty, E. H. Cochran, and P. M. Shearer (2017). Earthquake stress drop and source parameter scaling in Southern Kansas. *Induced Seismicity Ground Motion Workshop*, United States Geological Survey Earthquake Science Center, Menlo Park, CA.

Trugman, D. T., R. A. Guyer, P. A. Johnson (2013). Brittle-ductile friction model: tremor, triggering and LFE broadcasts. *Workshop on Triggered Seismicity and Fault Friction*, Pennsylvania State University, State College, PA.

RESEARCH GRANTS

09/2020 - 09/2023	University of Texas *Rising STARs* Startup Grant. Funding Period: 09/2020 to 09/2023. PI Daniel Trugman. Funding Total: $300,000.
02/2020 – 01/2021	Southern California Earthquake Center (SCEC) Award #20010. Title: *Aftershock patterns and co-seismic off-fault damage elucidate dynamic rupture processes on the 2019 Ridgecrest earthquake sequence*. PI Marine Denolle, Co-I Kurama Okubo, Co-I Daniel Trugman. Funding Total: $32,374.
01/2019 – 12/2020	Los Alamos National Laboratory LDRD Early Career Grant. Title: *Illuminating the Subsurface with Nonlinear Behavior*. PI Andrew Delorey, Co-I Daniel Trugman. Funding Total: $416,000.
01/2018 – 07/2020	Richard P. Feynman Distinguished Postdoctoral Fellowship Grant. Title: *Machine Learning the Physics of an Active Gold Mine*. PI Daniel Trugman. Funding Total: $490,000.

Graduate student fellowships and grants

09/2016 – 12/2017	Achievement Rewards for College Scientists Research Grant. Funding Total: $22,500.
06/2016 to 07/2017	Paul G. Silver Young Scholar Research Enhancement Grant. Funding Total: $1,310.
09/2014 to 09/2017	National Science Foundation Graduate Research Fellowship. Funding Total: $148,000.
06/2012 to 08/2012	Department of Energy Student Undergraduate Leadership Initiative Grant. Funding Total: $5000.

TEACHING EXPERIENCE

Department of Geological Sciences, UT Austin:

Spring 2021: *Earthquakes*[*] (GEO 371T & 391, upper-level undergraduate and graduate course). [*]Carries quantitative reasoning flag.

Other Teaching Experience:

Spring 2019: Instructor, *Machine Learning in Seismology Workshop*, Seismological Society of America Annual Meeting, Seattle WA

Spring 2017: Teaching Assistant: *Introduction to Geophysics* undergraduate course, UC San   Diego

Spring 2017: Guest Lecturer, *Machine Learning* graduate course, UC San Diego

Summer 2016: Instructor, Sally Ride Summer Science Camp: *Music of Earthquakes* class

Fall 2015: Seminar leader and co-instructor, *Earthquake and Volcano Deformation* graduate seminar, UC San Diego

Spring 2015: Guest Lecturer, *Data Assimilation* graduate course, UC San Diego

STUDENT AND POSTDOC ADVISING

Graduate Students (Primary Advisor):

Ruide Ao (MS; expected 2021).

Graduate Students (Committee Member):

Dimitri Voytan (Ph.D.; advisor: Mrinal Sen). Qualifying exam committee: 2020 – Present.

Nam Pham (Ph.D.; advisor: Sergey Fomel). Qualifying exam committee: 2020 – Present.

PROFESSIONAL SERVICE

Department of Geological Sciences, UT Austin:

2020 – Present   AGU Bridge Program Proposal writing group and committee

2020 – Present   Chevron Machine Learning / Data Analysis curriculum committee

Other Service:

2019 – Present   Participant in monthly ShakeAlert Earthquake Early Warning Scientific Forum

2018 – 2020   Organizing Committee for the Machine Learning in Solid Earth Science Conference, Santa Fe, NM

2019   Panel reviewer for US Geological Survey's National Earthquake Hazard Reduction Program

2019   Lead organizer of Los Alamos National Laboratory Earth and Environmental Sciences Division Seminar Series on Machine Learning

2019   Panel reviewer for Department of Energy: Office of Science proposals

2019   Co-organizer of Los Alamos National Laboratory Earth and Environmental Sciences Division Postdoctoral Seminar Series

2015 – 2019	Invited participant in US Geological Survey Uniform California Earthquake Rupture Forecast (UCERF) Planning Committee and Workshops

Peer reviewer:

2015 – Present	*Nature, Nature Communications, AGU Advances, Reviews of Geophysics, Geophysical Research Letters, Journal of Geophysical Research – Solid Earth, Bulletin of the Seismological Society of America, Seismological Research Letters, Earth and Planetary Science Letters, Geophysical Journal International*

VOLUNTEER ACTIVITIES AND OUTREACH

2020	Department of Geological Sciences (DGS) Undergraduate Honors Program invited speaker
2020	University of Texas Institute for Geophysics (UTIG) Postdoc Mentoring Program, invited speaker on applying for jobs in academia
2020	Geoscience Empowerment Network (GEN) "Down to Earth" program host
2018 – 2020	Los Alamos National Laboratory Employee's Scholarship Fund Advisory Committee member
2020	Los Alamos National Laboratory Peer Coaching program facilitator
2019	Bradbury Science Museum "Science on Tap" Series, invited speaker
2019	Los Alamos National Laboratory Student Symposium judge
2018 – 2019	Los Alamos County Science Fair judge
2018 – 2020	Los Alamos Family YMCA volunteer climbing wall route setter
2016 – 2017	UC San Diego Scripps Peers Program graduate student mentor
2016 – 2017	Institution of Geophysics and Planetary Physics Graduate Student Practice Oral Examinations, co-organizer
2016	Scripps Institution of Oceanography Teaching Award committee member
2015 – 2016	San Diego Hands-On Organization trail maintenance volunteer

CONFERENCE PRESENTATIONS (1st Author)

Trugman, D. T. (2020). Imaging stress and faulting complexity through earthquake waveform similarity. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Plenary Oral.

Trugman, D. T. (2020). Earthquake waveform similarity as a tool to image stress and fault complexity: application to the 2019 Ridgecrest earthquake sequence. *Seismological Society of America Annual Meeting*, Albuquerque, NM. [Canceled due to COVID-19].

Trugman, D. T. and Z. E. Ross (2019). Pervasive foreshock activity across Southern California: insights from the QTM earthquake catalog. *American Geophysical Union Fall Meeting*, San Francisco, CA. Oral.

Trugman, D. T., Z. E. Ross and P. A. Johnson (2019). Anti-similar aftershocks in the Ridgecrest, California earthquake sequence. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

Trugman, D. T. (2019). Unsupervised learning, a gentle introduction: Clustering the ComCat earthquake catalog using python's scikit-learn package. *Seismological Society of America Annual Meeting: Machine Learning Workshop,* Seattle WA. Workshop presentation.

Trugman, D. T. and P. M. Shearer (2018). Earthquake stress drop and peak ground motion: A machine learning perspective. *American Geophysical Union Fall Meeting*, Washington DC. Invited oral.

Trugman, D. T. and P. M. Shearer (2017). Examining the relationship between stress drop and peak ground acceleration for small-to-moderate earthquakes in the San Francisco Bay Area. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

Trugman, D. T., S. L. Dougherty, E. H. Cochran, and P. M. Shearer (2017). Examining earthquake source properties and scaling of recent seismicity in Southern Kansas. *Seismological Society of America Annual Meeting*, Denver, CO. Oral.

Trugman, D. T., P. M. Shearer, and K. D. Smith (2017). GrowClust: A hierarchical clustering algorithm for relative earthquake relocation, with application to the Spanish Springs and Sheldon, Nevada, earthquake sequences. *American Geophysical Union Fall Meeting*, San Francisco, CA. Poster.

Trugman, D. T., P. M. Shearer, and K. D. Smith (2017). GrowClust: A hierarchical clustering algorithm for relative earthquake relocation, with application to the Spanish Springs and Sheldon, Nevada, earthquake sequences. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

Trugman, D. T., P. M. Shearer, A. A. Borsa and Y. Fialko (2015). Long-term evolution of seismicity rates in California geothermal fields. *American Geophysical Union Fall Meeting*, San Francisco, CA. Oral.

Trugman, D. T., P. M. Shearer, A. A. Borsa and Y. Fialko (2015). A comparison of long-term changes in seismicity at The Geysers, Salton Sea, and Coso geothermal fields. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

Trugman, D. T., P. M. Shearer, and D. T. Sandwell (2014). Did stresses from the Cerro Prieto Geothermal Field influence the El Mayor-Cucapah rupture sequence? *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

Trugman, D. T., and E. M. Dunham (2013). A 2D pseudo-dynamic rupture model generator for earthquakes on geometrically complex faults. *Southern California Earthquake Center Annual Meeting*, Palm Springs, CA. Poster.

PROFESSIONAL AFFILIATIONS

2016 – Present: Seismological Society of America (SSA)

2015 – Present: American Geophysical Union (AGU)

2013 – Present: Southern California Earthquake Center (SCEC)