

Ting Lin, PhD

Civil, Environmental, & Construction Engineering
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Professional Preparation

Cornell University	Ithaca, NY	Civil Engineering, Architecture (Conc.)	BS (Hons.) 2006
Stanford University	Stanford, CA	Structural Engineering	MS 2008
Stanford University	Stanford, CA	Structural Engineering	PhD 2012
Stanford University	Stanford, CA	Earthquake Engineering	Postdoc 2013

Appointments

Assistant Professor, Texas Tech University. (September 2018 – Present).
Director, Multi-Hazard Sustainability Research Group (HazSus.org). (August 2013 – Present).
Assistant Professor, Marquette University. (August 2013 – August 2018).
Lecturer, Stanford University. (October 2012 - December 2012).
Consultant, National Earthquake Hazards Reduction Program (NEHRP) Consultants Joint Venture. (June 2011 - September 2011).
Delegate, United Nations Climate Change Conference, Worldwatch Institute. (December 2009).
Structural Engineering Intern, Leslie E. Robertson Associates. (July 2006 - August 2006).

Selected Publications

Thomas, M. A., Lin, T. (2018). A dual model for emulation of thermosteric and dynamic sea-level change. *Climatic Change*, 148 (1-2), 311-324. doi:10.1007/s10584-018-2198-y.

Bijelic, N., Lin, T., Deierlein, G. G. (2018). Validation of the SCEC Broadband Platform simulations for tall building risk assessments considering spectral shape and duration of the ground motion. *Earthquake Engineering and Structural Dynamics*, 47 (11), 2233-2251. doi:10.1002/eqe.3066.

Burton, H., Deierlein, G. G., Lallemand, D., Lin, T. (2016). Framework for incorporating probabilistic building performance in the assessment of community seismic resilience. *Journal of Structural Engineering*, 142 (8), 11p., C4015007. doi:10.1061/(ASCE)ST.1943-541X.0001321.

Lin, T., Baker, J. W. (2015). "Conditional Spectra." In Beer, M., Kougiumtzoglou, I.A., Patelli, E., Au, I.S.-K. (Ed.), *Encyclopedia of Earthquake Engineering*, 461-472, Springer, doi:10.1007/978-3-642-36197-5_386-1.

Baker, J. W., Lin, T., Haselton, C. B. (2014). "Ground motion selection for performance-based engineering: Effect of target spectrum and conditioning period." Chapter 28 in Fischinger, M. (Ed.), *Performance-Based Seismic Engineering: Vision for an Earthquake Resilient Society, Geotechnical, Geological and Earthquake Engineering*, 32, 423-434. Springer Netherlands. doi:10.1007/978-94-017-8875-5_28.

Lin, T., Haselton, C. B., Baker, J. W. (2013). Conditional-Spectrum-based ground motion selection. Part II: Intensity-based assessments and evaluation of alternative target spectra. *Earthquake Engineering and Structural Dynamics*, 42 (12), 1867-1884. doi:10.1002/eqe.2303.

- Lin, T., Haselton, C. B., Baker, J. W. (2013). Conditional-Spectrum-based ground motion selection. Part I: Hazard consistency for risk-based assessments. *Earthquake Engineering and Structural Dynamics*, 42 (12), 1847-1865. doi:10.1002/eqe.2301.
- Lin, T., Harmsen, S. C., Baker, J. W., Luco, N. (2013). Conditional Spectrum computation incorporating multiple causal earthquakes and ground-motion prediction models. *Bulletin of the Seismological Society of America*, 103 (2A), 1103-1116. doi:10.1785/0120110293.
- Lin, T. (2012). "Probabilistic Sea-Level Rise Hazard Analysis." In Phoon, K. K., Beer, M., Quek, S. T. and Pang, S. D. (Ed.), *Sustainable Civil Infrastructures – Hazards, Risk, Uncertainty*, 593-598. Singapore, Singapore: Research Publishing. doi:10.3850/978-981-07-2219-7 P296.
- Jayaram, N., Lin, T., Baker, J. W. (2011). A computationally efficient ground-motion selection algorithm for matching a target response spectrum mean and variance. *Earthquake Spectra*, 27 (3), 793-815. doi:10.1193/1.3608002. (Corresponding Author; Earthquake Engineering Research Institute (EERI) 2011 Outstanding Paper Award for *Earthquake Spectra*, 2013)

Synergistic Activities

1. Committee Member of the National Academies of Sciences, Engineering, and Medicine (NAEM) Policy and Global Affairs (PGA) Planning Committee for Resilient Technology Workshop; Committee Member of the American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) Board of Governors Level Task Committee on Confirmation & Update of Vision for the Future; Institutional Representative and Ground Motion Simulation Validation (GMSV) Technical Activity Group Member of the Southern California Earthquake Center (SCEC); Inaugural Vice-Chair of the ASCE SEI Committee on Advances in Information Technology; Secretary of the Data, Metrics, & Tools Committee with a dual role in the Buildings & Facilities Committee for the National Institute of Standards and Technology (NIST) Community Resilience Panel; PhD External Examiner of Earthquake Engineering and Engineering Seismology (the ROSE School) in Understanding and Managing Extremes at IUSS Pavia, Italy; Reviewer of journals (e.g., Outstanding Reviewer of *Soil Dynamics and Earthquake Engineering*, 2016), conferences (e.g., NCEE, WCEE), & funding agencies (e.g., NSF, USGS, NSERC of Canada, GRC of Hong Kong); Session Chair of several conference sessions on hazards, uncertainties, and resilience (e.g., SSA, EMI, PMC, ICASP, WEEF)
2. Computational tools of the Conditional Spectrum and Ground Motion Prediction Model Deaggregation implemented in the U.S. Geological Survey (USGS) hazard mapping interface; software on ground motion selection utilized by researchers & practitioners, recognized by the EERI, and adopted by the Global Earthquake Model (GEM)
3. Findings on risk-based and intensity-based seismic assessments recommended as the Applied Technology Council (ATC-82) analysis guidelines (featured on NIST GCR 11-917-15 cover), the 2015 NEHRP provisions, and the ASCE 7-16 building codes
4. Curricular materials on Performance-Based Earthquake Engineering, Engineering Reliability, and Performance-Based Engineering developed at Stanford, Marquette, and Texas Tech for advanced graduate education that integrates research and teaching; 4 interdisciplinary PhD students (1 as Advisor, 1 as Co-Advisor, and 2 as Committee Member) graduated in 2018
5. Research results on seismic hazard, sea-level rise uncertainty, performance-based engineering, and multi-hazard sustainability disseminated to engineering, architecture, technology, engineering education, mathematics, computer science, geography, and earth science communities, in university, industry, government, and non-governmental settings worldwide