

PEER REPORTS CATALOG

- PEER 2022/06** Tan, P., Sitar, N. (2022). Parallel Level-Set DEM (LS-DEM) Development and Application to the Study of Deformation and Flow of Granular Media, *PEER Report 2022/06*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2022/05** Kinikles, D., McCartney, J. S., (2022). Hyperbolic Hydro-mechanical Model for Seismic Compression Prediction of Unsaturated Soils in the Funicular Regime, *PEER Report 2022/05*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2022/04** McCallen D., Petrone F., Esmacilzadeh Seylabi, E., Pitarka A., Abrahamson N., Elfass S. (2022). The PEER International Pacific Rim Forum 2021: Regional-Scale Simulation of Earthquake Ground Motions and Infrastructure Response for Performance-Based Earthquake Engineering, *PEER Report No. 2022/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA
- PEER 2022/03** Aghagholizadeh M., Makris N. (2022). Moment Resisting Frames Coupled with Rocking Walls Subjected to Earthquakes, *PEER Report No. 2022/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA
- PEER 2022/02** Andrade J.A. (2022). Micro-Inspired Continuum Modeling Using Virtual Experiments, *PEER Report No. 2022/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2022/01** Zhou J., Kunnath S.K. (2022). Capacity Limit States for Nonductile Bridge Columns, *PEER Report No. 2022/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/11** Mosalam K., Kasalanati A. (2021). PEER Annual Report 2020-2021, *PEER Report No. 2021/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/10** Chang M., Stanton J., Eberhard M. (2021). Seismic performance of column-to-drilled-shaft connections in reinforced concrete bridges, *PEER Report No. 2021/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/09** Silva-Lopez R.I., Baker J.W. (2021). Use of corridors for decision making in transportation networks in seismic regions, *PEER Report No. 2021/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/08** Amiri S.M.A., Moustafa M.A., Sanders D.H. (2021). Seismic design and detailing of bridge columns to account for ground-motion duration, *PEER Report No. 2021/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/07** Orang M.J., Motamed R. (2021). Shake table tests on a shallow foundation on liquefiable soils supported on helical piles, *PEER Report No. 2021/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/06** Terzic V., Villanueva P.K., Saldana D., Yoo D.Y. (2021). Novel framework for probabilistic evaluation of functional recovery of building systems, *PEER Report No. 2021/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2021/04** Mauer B.W., Mertan G., Baird A.J. (2021). Toward multi-tier modeling of liquefaction impacts on transportation infrastructure, *PEER Report No. 2021/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/03** Hutabarat D., Bray J.D. (2021). Effective stress analysis of liquefaction sites and evaluation of sediment ejecta potential, *PEER Report No. 2021/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/02** Chen C., Arduino P. (2021). Implementation, verification, and validation of the PM4Sand Model in OpenSees, *PEER Report No. 2021/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2021/01** Eslami M., Mosalam K.M., Agrawal A., Kasalanati A. (2021) Fire-induced structural collapse on Pier 45 at Fisherman's Wharf, San Francisco, California, May 23, 2020, *PEER Report No. 2021/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/24** Reis E. (2020). Seismic performance of a single-family wood-frame houses: comparing analytical and industry catastrophe models, *PEER Report No. 2020/24*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/23** Vail K., Lizundia B., Welch D.P., Reis E. (2020). Earthquake damage workshop, *PEER Report No. 2020/23*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/22** Welch D.P. Deierlein G.G. (2020). Technical background report for structural analysis and performance assessment, *PEER Report No. 2020/22*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2020/21** Schiller B., Hutchinson T.C., Cobeen K. (2020e). Comparison of the response of small and large component cripple wall specimens tested under simulated seismic loading, *PEER Report No. 2020/21*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/20** Cobeen K., MahdaviFar V., Hutchinson T.C., Schiller B., Welch D., Kang G., Bozorgnia Y. (2020). Large-component seismic testing for existing and retrofitted single-family wood-frame dwellings, *PEER Report No. 2020/20*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/19** Schiller B., Hutchinson T.C., Cobeen K. (2020d). Cripple wall small-component test program: Comparisons, *PEER Report No. 2020/19*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/18** Schiller B., Hutchinson T.C., Cobeen K. (2020c). Cripple wall small-component test program: Wet specimens II, *PEER Report No. 2020/18*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/17** Schiller B., Hutchinson T.C., Cobeen K. (2020b). Cripple wall small-component test program: Dry specimens, *PEER Report No. 2020/17*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/16** Schiller B., Hutchinson T.C., Cobeen K. (2020a). Cripple wall small-component test program: Wet specimens I, *PEER Report No. 2020/16*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/15** Zareian F., Lanning J. (2020). Development of testing protocol for cripple wall components, *PEER Report No. 2020/15*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/14** Mazzoni S., Gregor N., Al Atik L., Bozorgnia Y., Welch D.P., Deierlein G.G. (2020). Probabilistic seismic hazard analysis and selecting and scaling of ground motion records, *PEER Report No. 2020/14*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/13** Reis E. (2020). Development of index buildings, *PEER Report No. 2020/13*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/12** Reis E., Bozorgnia Y., Burton H., Cobeen K., Deierlein G.D., Hutchinson T., Kang G.S., Lizundia B., Mazzoni S., Rabinovici S., Schiller B., Welch D.P., Zareian F. (2020). Project technical summary, *PEER Report No. 2020/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/11** Wu Y., Günay S., Mosalam K.M. (2020). Hybrid simulations for the seismic evaluation of resilient bridge systems, *PEER Report No. 2020/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/10** Nema A., Restrepo J.I. (2020). Low seismic damage columns for accelerated bridge construction, *PEER Report No. 2020/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/09** Günay S., Hu F. Mosalam K.M., Nema A., Restrepo J.I., Zsarnóczay A., Baker J.W. (2020). Blind prediction of shaking table tests of a new bridge design, *PEER Report No. 2020/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/08** Mosalam K.M., Kasalanati A. (2020). PEER activities report 2018–2020, *PEER Report No. 2020/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/07** Gregor N., Addo K., Al Atik L., Boore D.M., Bozorgnia Y., Campbell K.W., Chou B.S.-J., Gülerce Z., Hassani B., Kishida T., Kuehn N., Midorikawa S., Mazzoni S., Parker G.A., Si H., Stewart J.P., Youngs R.R. (2020). Comparison of NGA-Sub ground-motion models, *PEER Report No. 2020/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/06** Si H., Midorikawa S., Kishida T. (2020). Development of NGA-Sub ground-motion model of 5%-damped pseudo-spectral acceleration based on database for subduction earthquakes in Japan, *PEER Report No. 2020/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/05** Abrahamson N.A., Bhasin S. (2020). Conditional ground-motion model for peak ground velocity for active crustal regions, *PEER Report No. 2020/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/04** Kuehn N., Bozorgnia Y., Campbell, K.W., Gregor N. (2020). Partially non-ergodic ground-motion model for subduction regions using the NGA-Subduction database, *PEER Report No. 2020/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/03** Parker G.A., Stewart J.P., Boore D.M., Atkinson G.M., Hassani B. (2020). NGA-Subduction global ground-motion models with regional adjustment factors, *PEER Report No. 2020/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/02** Bozorgnia Y., Stewart J.P. (eds.) (2020). Data resources for NGA-subduction project, *PEER Report No. 2020/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2020/01** Qian X., Chopra A.K., McKenna F. (2020). Modeling viscous damping in nonlinear response history analysis for steel moment-frame buildings, *PEER Report No. 2020/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2019/09** Hammad A., Moustafa M. (2019). Seismic behavior of special concentric braced frames under short- and long-duration ground motions, *PEER Report No. 2019/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/08** Mojidra R., Ryan K.L. (2019). Influence of vertical ground motion on bridges isolated with spherical sliding bearings, *PEER Report No. 2019/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/07** Gao Y., Mosalam K.M. (2019). PEER Hub ImageNet (ϕ -Net): A large-scale multi-attribute benchmark dataset of structural images, *PEER Report No. 2019/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/06** Zhu M., Scott M.H. (2019). Fluid–structure interaction and Python-scripting capabilities in OpenSees, *PEER Report No. 2019/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/05** Kang G.S., Muin S., Archbold J., Woods B., Mosalam K.M. (2019). Expected earthquake performance of buildings designed to the California Building Code (California Alfred E. Alquist Seismic Safety Publication 19-01), *PEER Report No. 2019/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/04** Msangalathu S., Shokrabada M., Burton H.V. (2019). Aftershock seismic vulnerability and time-dependent risk assessment of bridges, *PEER Report No. 2019/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/03** Donahue J.L., Stewart J.P., Gregor N., Bozorgnia Y. (2019). Ground-motion directivity modeling for seismic hazard applications, *PEER Report No. 2019/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/02** Løkke A., Chopra A.K. (2019). Direct-finite-element method for nonlinear earthquake analysis of concrete dams including dam–water–foundation rock interaction, *PEER Report No. 2019/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2019/01** Moss R.E.S., Gebhart T.R., Frost D.J., Ledezma C. (2019). Flow-failure case history of the Las Palmas, Chile, tailings dam, *PEER Report No. 2019/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/08** Goulet C.G., Bozorgnia Y., Abrahamson N.A., Kuehn H., Al Atik L., Youngs R.R., Graves R.W., Atkinson G. (2018). Central and Eastern North America ground-motion characterization: NGA-East final report, *PEER Report No. 2018/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/07** Bayless J., Abrahamson N.A. (2018). An empirical model for Fourier Amplitude Spectra using the NGA-West2 Database, *PEER Report No. 2018/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/06** Arduino P., Chen L., McGann C.R. (2018). Estimation of shear demands on rock-socketed drilled shafts subjected to lateral loading, *PEER Report No. 2018/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/05** Kottke A., Abrahamson N.A., Boore D.M., Bozorgnia Y., Goulet C., Hollenback J., Kishida T., Der Kiureghian A., Ktenidou O., Kuehn N., Rathje E.M., Silva W.J., Thompson E., Wang X. (2018). Selection of random vibration procedures for the NGA-East project, *PEER Report No. 2018/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/04** Watson-Lamprey J. (2018). Capturing directivity effects in the mean and aleatory variability of the NGA-West 2 ground motion prediction equations, *PEER Report No. 2018/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/03** Hale C., Abrahamson N.A., Bozorgnia Y. (2018). Probabilistic seismic hazard analysis code verification, *PEER Report No. 2018/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/02** Abrahamson N.A., Kuehn N., Gülerce Z., Gregor N., Bozorgnia Y., Parker G., Stewart J.P., Chiou B.S.-J., Idriss I.M., Campbell K.W., Youngs R.R. (2018). Update of the BChydro subduction ground-motion model using the NGA-Subduction dataset, *PEER Report No. 2018/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2018/01** Mosalam K.M., Kasalanati A., Günay S. (2018). PEER annual report 2017–2018, *PEER Report No. 2018/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/12** Simpson B.G., Mahin S.A., Lai J.-W. (2017). Experimental investigation of the behavior of vintage and retrofit concentrically braced steel frames under cyclic loading, *PEER Report No. 2017/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/11** Shao B., Schellenberg A.H., Schoettler M.J., Mahin S.A. (2017). Preliminary studies on the dynamic response of a seismically isolated Prototype Gen-IV Sodium-Cooled Fast Reactor (PGSFR), *PEER Report No. 2017/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/10** Takhirov S.M., Fujisaki E., Kempner L., Riley M., Low B. (2017). Development of time histories for IEEE693 testing and analysis (including seismically isolated equipment), *PEER Report No. 2017/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2017/09** Wang P., Stewart J.P., Bozorgnia Y., Boore D.M., Kishida T. (2017). “R” package for computation of earthquake ground-motion response spectra, *PEER Report No. 2017/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/08** Turner B.J., Brandenberg S.J., Stewart J.P. (2018). Influence of kinematic SSI on foundation input motions for bridges on deep foundations, *PEER Report No. 2017/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/07** Drazin P., Govindjee S. (2017). A nonlinear kinetic model for multi-stage friction pendulum systems, *PEER Report No. 2017/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/06** Hamburger R., Moehle J.P. (Eds.), Baker J., Bray J. Crouse C.B., Deierlein G.G., Hooper J., Lew M., Maffei J., Mahin S.A., Malley J., Naeim F., Stewart J.P., Wallace J. (2017). Guidelines for performance-based seismic design of tall buildings, Version 2.02. TBI Working Group, *PEER Report No. 2017/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/05** Hashash Y.M.A., Harmon J.A., Ilhan O., Parker G.A., Stewart J.P. (2017). Recommendations for ergodic nonlinear site amplification in Central and Eastern North America, *PEER Report No. 2017/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/04** Stewart J.P., Parker G.A., Harmon J.P., Atkinson G.M., Boore D.M., Darragh R.B., Silva W.J., Hashash Y.M.A. (2017). Expert panel recommendations for ergodic site amplification in Central and Eastern North America, *PEER Report No. 2017/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/03** Goulet C.A., Bozorgnia Y., Kuehn N., Al Atik L., Youngs R.R., Graves R.W., Atkinson G.M. (2017). NGA-East ground-motion models for the U.S. Geological Survey national seismic hazard maps, *PEER Report No. 2017/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/02** Bray J.D., Boulanger R.W., Cubrinovski M., Tokimatsu K., Kramer S.L., O’Rourke T., Rathje E., Green R.A., Robinson P.K., Beyaei C.Z. (2017). U.S.–New Zealand–Japan Workshop: Liquefaction-induced ground movements effects, University of California, Berkeley, California, 2–4 November 2016, *PEER Report No. 2017/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2017/01** Mosalam K.M., Kasalanati A., Kang G. (2017). 2016 PEER annual report, *PEER Report No. 2017/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/10** Ling X., Mosalam K.M. (2016). Performance-based robust nonlinear seismic analysis with application to reinforced concrete bridge systems, *PEER Report No. 2016/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/09** Hurtado G., Moehle J.P. (2016). Detailing requirements for column plastic hinges subjected to combined flexural, axial, and torsional seismic loading, *PEER Report No. 2016/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/08** Cimellaro G.P., Zamani-Noori A., Kamouh O., Terzic V., Mahin S.A. (2016). Resilience of critical structures, infrastructure, and communities, *PEER Report No. 2016/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/07** Drazin P., Govindjee S. (2016). Hybrid simulation theory for a classical nonlinear dynamical system, *PEER Report No. 2016/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/06** Johnson L.A., Rabinovici, Kang G.S., Mahin S.A. (2016). California earthquake early warning system benefit study, *PEER Report No. 2016/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/05** Abrahamson C., Shi H.-J.M., Yang B. (2016). Ground-motion prediction equations for Arias Intensity consistent with the NGA-West2 ground-motion models, *PEER Report No. 2016/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/04** Johnson L.A., Mahin S.A. (2016). The Mw 6.0 South Napa earthquake of August 24, 2014: A wake-up call for renewed investment in seismic resilience across California, *PEER Report No. 2016/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/03** Lynett P. (2016). Simulation confidence in tsunami-driven overland flow, *PEER Report No. 2016/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2016/02** Kishida T., Ktenidou O.-J., Darragh R.B., Silva W.J. (2016). semi-automated procedure for windowing time series and computing Fourier amplitude spectra for the NGA-West2 database, *PEER Report No. 2016/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2016/01** Ktenidou O.J., Abrahamson N.A., Darragh R.B., Silva W.J. (2016). A methodology for the estimation of Kappa (κ) from large datasets: Example application to rock sites in the NGA-East database and implications on design motions, *PEER Report No. 2016/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/13** Guerrini G., Restrepo J.I., Vervelidis A., Massari M. (2015). Self-centering precast concrete dual-steel-shell columns for accelerated bridge construction: seismic performance, analysis, and design, *PEER Report No. 2015/13*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/12** Kolozvari K., Orakcal K. Wallace, J. (2015). Shear-flexure interaction modeling for reinforced concrete structural walls and columns under reversed cyclic loading, *PEER Report No. 2015/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/11** Kwong N.S., Chopra A.K. (2015). Selection and scaling of ground motions for nonlinear response history analysis of buildings in performance-based earthquake engineering, *PEER Report No. 2015/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/10** Moustafa M.A., Mosalam K.M. (2015). Structural behavior of column-bent cap beam-box girder systems in reinforced concrete bridges subjected to gravity and seismic loads. Part II: Hybrid simulation and post-test analysis, *PEER Report No. 2015/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/09** Moustafa M.A., Mosalam K.M. (2015). Structural behavior of column-bent cap beam-box girder systems in reinforced concrete bridges subjected to gravity and seismic loads, *PEER Report No. 2015/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/08** NGA-East: Adjustments to median ground-motion models for Central and Eastern North America, *PEER Report No. 2015/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/07** Al Atik L. (2015). NGA-East: ground-motion standard-deviation models for Central and Eastern North America, *PEER Report No. 2015/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/06** Boore D.M. (2015). Adjusting ground-motion intensity measures to a reference site for which $V_{s30} = 3000$ m/sec, *PEER Report No. 2015/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/05** Schellenberg A.H., Sarebanha A., Schoettler M.J., Mosqueda G., Benzoni G., Mahin S.A. (2015). Hybrid simulation of seismic isolation systems applied to an APR-1400 nuclear power plant, *PEER Report No. 2015/105*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/04** NGA-East: Median ground-motion models for the Central and Eastern North America Region, *PEER Report No. 2015/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/03** Kelly J.M., Van Engelen N.D. (2015). Single series solution for the rectangular fiber-reinforced elastomeric isolator compression modulus, *PEER Report No. 2015/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/02** Schoettler M.J., Restrepo J.I., Guerrini G., Duck D.E., Carrea F. (2015). A full-scale, single-column bridge bent tested by shake-table excitation, *PEER Report No. 2015/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2015/01** Terzic R., Schoettler M.J., Restrepo J.I., Mahin S.A. (2015). Concrete column blind prediction contest 2010: outcomes and observations, *PEER Report No. 2015/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/20** Dabaghi M., Der Kiureghian A. (2014). Stochastic modeling and simulation of near-fault ground motions for performance-based earthquake engineering, *PEER Report No. 2014/20*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/19** Nguyen W., Trono W., Panagiotou M., Ostertag C.P. (2014). Seismic response of a hybrid fiber-reinforced concrete bridge column detailed for accelerated bridge construction *PEER Report No. 2014/19*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/18** Lu Y., Panagiotou M., Loutromanos I. (2014). Three-dimensional beam-truss model for reinforced concrete walls and slabs subjected to cyclic static or dynamic loading *PEER Report No. 2014/20*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/17** Goulet C.A., Kishida T., Ancheta T.D., Cramer C.H., Darragh R.B., Silva W.J., Hashash Y.M.A., Harmon J., Stewart J.P., Wooddell K.E., Youngs R.R. (2014). PEER NGA-East database *PEER Report No. 2014/17*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/16** Stewart J.P., Afshari K., Hashash Y.M.A. (2014). Guidelines for performing hazard-consistent one-dimensional ground response analysis for ground motion prediction *PEER Report No. 2014/16*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2014/15** Dreiling J., Isken M.P., Mooney W.D., Chapman M.C., Godbee R.W. (2014). NGA-East regionalization report: comparison of four crustal regions within Central and Eastern North America using waveform modeling and 5%-damped pseudo-spectral acceleration response *PEER Report No. 2014/15*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/14** Somerville P. (2014). Scaling relations between seismic moment and rupture area of earthquakes in stable continental regions *PEER Report No. 2014/14*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/13** Kang G.D., Mahin S.A. (Eds) (2014). PEER preliminary notes and observations on the August 24, 2014, South Napa earthquake *PEER Report No. 2014/13*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/12** Campbell K.W., Hashash Y.M.A., Kim B., Kottke A.R., Rathje E.M., Silva W.J., Stewart J.P. (2014). Reference-rock site conditions for Central and Eastern North America: Part II – Attenuation (κ) definition *PEER Report No. 2014/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/11** Hashash Y.M.A., Kottke A.R., Stewart J.P., Campbell K.W., Kim B., Rathje E.M., Silva W.J., Nikolaou S., Moss C. (2014). Reference-rock site conditions for Central and Eastern North America: Part I - Velocity definition *PEER Report No. 2014/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/10** Turner B., Brandenberg S.J., Stewart J.P. (2014). Evaluation of collapse and non-collapse of parallel bridges affected by liquefaction and lateral spreading *PEER Report No. 2014/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/09** Kishida T., Kayen R.E., Ktenidou O.J., Silva W.J., Darragh R.B., Watson-Lamprey J. (2014). PEER Arizona strong-motion database and GMPEs evaluation *PEER Report No. 2014/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/08** Schaefer J.A., Kennedy B., Eberhard M.O., Stanton J.F. (2014). Unbonded pretensioned bridge columns with rocking detail, *PEER Report No. 2014/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/07** Tremayne H., Mahin S.A., McCarthy D., Bwarie J. (eds.) (2014). Northridge 20 symposium summary report: Impacts, outcomes, and next steps, *PEER Report No. 2014/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2014/06** NEES Operation Center and NIED (2014). Report of the tenth planning meeting of NEES/E-Defense collaborative research on earthquake engineering, *PEER Report No. 2014/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2014/04** Lee H., Mosalam K.M. (2014). Effect of vertical acceleration on shear strength of reinforced concrete columns, *PEER Report No. 2014/47*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2013/26** Urban earthquake engineering, *Proceedings of the U.S.-Iran Seismic Workshop*, *PEER Report No. 2014/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2013/10** Shahi S.K., Baker J.W. (2013). NGA-West 2 models for ground-motion directionality, *PEER Report No. 2013/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2013/09** Spudich P., Bayless J.R., Baker J.W., Chou B.-S.J., Rowshandel B., Shahi S.K., Somerville P. (2013). Final report of the NGA-West2 directivity working group, *PEER Report No. 2013/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2013/08** Idriss I.M. (2013). NGA-West2 model for estimating average horizontal values of pseudo-absolute spectral accelerations generated by crustal earthquakes, *PEER Report No. 2013/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2013/06** Campbell K.W., Bozorgnia Y. (2013). NGA-West2 Campbell-Bozorgnia ground motion model for the horizontal components of PGA, PGV, and 5%-damped elastic pseudo-acceleration response spectra for periods ranging from 0.01 to 10 sec, *PEER Report No. 2013/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2013/05** Boore D.M., Stewart J.P., Seyhan E., Atkinson G.M. (2013). NGA-West 2 equations for predicting response spectral accelerations for shallow crustal earthquakes, *PEER Report No. 2013/18*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2013/04** Abrahamson N.A., Silva W.J., Kamai R. (2013). Update of the AS08 ground-motion prediction equations based on the NGA-West2 data set, *PEER Report No. 2013/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2013/02** Whyte C., Stojadinović B. (2013). Hybrid simulation of the seismic response of squat reinforced concrete shear walls, *PEER Report No. 2013/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2012/08** Wair B.R., DeJong J.T., Shantz T. (2012). Guidelines for estimation of shear wave velocity, *PEER Report No. 2012/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2012/07** Tremayne H., Mahin S.F. (eds.) (2012). Earthquake engineering for resilient communities: 2012 PEER internship program research report collection, *PEER Report No. 2012/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2009/03** Dryden M., Fenves G.L. (2009). The integration of experimental and simulation data in the study of reinforced concrete bridge systems including soil-foundation-structure interaction, *PEER Report No. 2009/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2009/02** Improving earthquake mitigation through innovations and applications in seismic science, engineering, communication, and response, *Proceedings of a U.S.-Iran Seismic Workshop*, *PEER Report No. 2009/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2008/09** Chiou B.S.-J., Youngs R.R., (2008). NGA model for average horizontal component of peak ground motion and response spectra, *PEER Report No. 2008/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2008/08** Uriz P., Mahin S.A. (2008). Toward earthquake-resistant design of concentrically braced steel structures, *PEER Report No. 2008/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2008/07** Kramer S.L., Arduino P., Shin H.-S. (2008). Using OpenSees for performance-based evaluation of bridges on liquefiable soils, *PEER Report No. 2008/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2008/04** Stewart J.P., Kwok A.O.-L., Hashash Y.M.A., Matasovic N., Pyke R., Wang Z., Yang Z. (2008). Benchmarking of nonlinear geotechnical ground response analysis procedures, *PEER Report No. 2008/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2008/03** Aviram A., Mackie K.R., Stojadinović B. (2008). Guidelines for nonlinear analysis of bridge structures in California, *PEER Report No. 2008/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2007/11** Brown W.A., Lehman D.E., Stanton J.F. (2007). Bar buckling in reinforced concrete bridge columns, *PEER Report No. 2007/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2007/10** Talaat M.M., Mosalam K.M. (2007). Computational modeling of progressive collapse in reinforced concrete frame structures, *PEER Report No. 2007/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2007/08** Haselton G.G., Deierlein G.G. (2007). Assessing seismic collapse safety of modern reinforced concrete moment-frame buildings, *PEER Report No. 2007/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2007/07** Berry M.P., Eberhard M.O. (2007). Performance modeling strategies for modern reinforced concrete bridge columns, *PEER Report No. 2007/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2007/02** Campbell K.W., Bozorgnia Y. (2007). Campbell-Bozorgnia NGA ground motion relations for the geometric mean horizontal component of peak and spectral ground motion parameters, *PEER Report No. 2007/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2007/01** Boore D.M., Atkinson G.M. (2007). Boore-Atkinson NGA ground motion relations for the geometric mean horizontal component of peak and spectral ground motion parameters, *PEER Report No. 2007/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2006/07** Orakcal K., Massone L.M., Wallace J.W. (2006). Analytical modeling of reinforced concrete walls for predicting flexural and coupled-shear-flexural responses, *PEER Report No. 2006/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2006/05** Bazzurro P., Cornell C.A., Menun C., Motahari M., Ludo N. (2006). Advanced seismic assessment guidelines, *PEER Report No. 2006/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2006/04** Lee T.-H., Mosalam K.M. (2006). Probabilistic seismic evaluation of reinforced concrete structural components and systems, *PEER Report No. 2006/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2006/03** Ashford S.A., Juirnarongrit T. (2006). Performance of lifelines subjected to lateral spreading, *PEER Report No. 2006/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2006/02** Kiremidjian A., Moore J., Fan Y.-Y., Basoz N., Yazali O., Williams M. (2006). Pacific Earthquake Engineering Research Center highway demonstration project, *PEER Report No. 2006/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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- PEER 2005/17** Sakai J., Mahin S.A., Espinoza A. (2005). Earthquake simulation tests on reducing residual displacements of reinforced concrete bridges, *PEER Report No. 2005/17*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.

- PEER 2005/16** Song J., Der Kiureghian, Sackman J.L. (2006). Seismic response and reliability of electrical substation equipment and systems, *PEER Report No. 2005/16*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/15** Moss R.E.S., Seed R.B., Kayen R.E., Stewart J.P., Der Kiureghian A. (2005). CPT-based probabilistic assessment of seismic soil liquefaction initiation, *PEER Report No. 2005/15*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/14** Kutter B.L., Martin G., Hutchinson T., Harden C., Gajan S., Phalen J. (2005). Workshop on modeling of nonlinear cyclic load-deformation behavior of shallow foundations, *PEER Report No. 2005/14*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/13** Yeo G.L., Cornell C.A. (2005). Stochastic characterization and decision bases under time-dependent aftershock risk in performance-based earthquake engineering, *PEER Report No. 2005/13*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/12** Comerio M.C. (ed.) (2005). PEER testbed study on a laboratory building: exercising seismic performance assessment, *PEER Report No. 2005/12*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/11** Krawinkler H. (ed.) (2005). Van Nuys Hotel building testbed report: Exercising seismic performance assessment, *PEER Report No. 2005/11*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/10** First NEES/E-Defense workshop on collapse simulation of reinforced concrete building structures, *PEER Report No. 2005/10*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/09** Maffei J., Telleen K., Mohr D., Holmes W., Nakayama Y. (2005). Test applications of advanced seismic assessment guidelines, *PEER Report No. 2005/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/08** Ranf R.T., Nelson J.M., Price Z., Eberhard M.O., Stanton J.F. (2005). Damage accumulation in lightly confined reinforced concrete bridge columns, *PEER Report No. 2005/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/07** Konstantinidis D., Makris M. (2005). Experimental and analytical studies on the seismic response of freestanding and anchored laboratory equipment, *PEER Report No. 2005/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/06** Ibarra L.F., Krawinkler H. (2005). Global collapse of frame structures under seismic excitations, *PEER Report No. 2005/06*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/05** Chaundhuri, S.R., Hutchinson T.C. (2005). Performance characterization of bench- and shelf-mounted equipment, *PEER Report No. 2005/05*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/04** Harden C., Hutching T.C., Martin G.R., Kutter B.L. (2005). Numerical modeling of the nonlinear cyclic response of shallow foundations, *PEER Report No. 2005/04*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/03** Porter K.A. (2005). A taxonomy of building components for performance-based earthquake engineering, *PEER Report No. 2005/03*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/02** Mackie K.R., Stojadinović B. (2005). Fragility basis for California highway overpass bridge seismic decision making, *PEER Report No. 2005/02*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2005/01** Stewart J.P., Choi Y., Graves R.W. (2005). Empirical characterization of site conditions on strong ground motion, *PEER Report No. 2005/01*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2004/09** Stearns C., Filiatrault A. (2004). Electrical substation equipment interaction: Experimental rigid conductor studies, *PEER Report No. 2004/09*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2004/08** Takhirov S.M., Fenves G.L., Fujisaki E. (2004). Seismic qualification and fragility testing of line break 550-kV disconnect switches, *PEER Report No. 2004/08*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2004/07** Takhirov S.M., Fenves G.L., Fujisaki E., Clyde D. (2004). Ground motions for earthquake simulator qualification of electrical substation equipment, *PEER Report No. 2004/07*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
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