

PEER REPORTS CATALOG

- PEER 2024/03** Motamed, R., McCallen, D. Saxena, S. (2024). An International Workshop on Large-Scale Shake Table Testing for the Assessment of Soil-Foundation-Structure-System Reponse for Seismic Safety of DOE Nuclear Facilities, A Virtual Workshop – 17-18 May 2021, *PEER Report 2024/03*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2024/02** Sepulveda, C., Bustamante, R., Mosqueda, G. (2024). Seismic Performance of Isolated Bridges Under Beyond Design Basis, *PEER Report 2024/02*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2024/01** Moghimi, G., Makris, N. (2024). Response Modification of Structures with Supplemental Rotational Inertia, *PEER Report 2024/01*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2023/02** Stuedlein, A. W., Alemu, B., Evans, T. M., Kramer, S. L., Stewart, J. P., Ulmer, K., & Ziotopoulou, K. (2023). PEER Workshop on Liquefaction Susceptibility, *PEER Report 2023/02*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- PEER 2023/01** Stuedlein, A. W., Dadashiserej, A., and Jana, A. (2023). Models for the Cyclic Resistance of Silts and Evaluation of Cyclic Failure during Subduction Zone Earthquakes, *PEER Report 2023/01*. Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA.
- 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., Esmailzadeh 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.
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- 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.
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- 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., Mahdavi 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.
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- 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.
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- 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., Zsámóczay 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.
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- 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.
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- 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.
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- 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.
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- 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.
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- 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.
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- 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.

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- 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.
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- 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.
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- 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.
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- 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.
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