

Jonathan P Stewart

List of Publications by Year in descending order

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3129
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#	ARTICLE	IF	CITATIONS
1	NGA-West2 Equations for Predicting PGA, PGV, and 5% Damped PSA for Shallow Crustal Earthquakes. Earthquake Spectra, 2014, 30, 1057-1085.	3.1	1,091
2	NGA-West2 Database. Earthquake Spectra, 2014, 30, 989-1005.	3.1	943
3	NGA-West2 Research Project. Earthquake Spectra, 2014, 30, 973-987.	3.1	415
4	Evaluation of the seismic performance of a code-conforming reinforced-concrete frame building from seismic hazard to collapse safety and economic losses. Earthquake Engineering and Structural Dynamics, 2007, 36, 1973-1997.	4.4	317
5	Prediction Equations for Significant Duration of Earthquake Ground Motions considering Site and Near-Source Effects. Earthquake Spectra, 2006, 22, 985-1013.	3.1	216
6	Seismic Soil-Structure Interaction in Buildings. II: Empirical Findings. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1999, 125, 38-48.	3.0	189
7	Nonlinear Site Amplification as Function of 30 m Shear Wave Velocity. Earthquake Spectra, 2005, 21, 1-30.	3.1	189
8	Semi-Empirical Nonlinear Site Amplification from NGA-West2 Data and Simulations. Earthquake Spectra, 2014, 30, 1241-1256.	3.1	189
9	Use of Exact Solutions of Wave Propagation Problems to Guide Implementation of Nonlinear Seismic Ground Response Analysis Procedures. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2007, 133, 1385-1398.	3.0	185
10	Comparison of NGA-West2 GMPEs. Earthquake Spectra, 2014, 30, 1179-1197.	3.1	138
11	Simplified Model for Small-Strain Nonlinearity and Strength in 1D Seismic Site Response Analysis. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	135
12	Subsurface Characterization at Ground Failure Sites in Adapazari, Turkey. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 673-685.	3.0	131
13	Kinematic Soil-Structure Interaction from Strong Motion Recordings. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2003, 129, 323-335.	3.0	116
14	Selection of Ground Motion Prediction Equations for the Global Earthquake Model. Earthquake Spectra, 2015, 31, 19-45.	3.1	115
15	Elastic and Large-Strain Nonlinear Seismic Site Response from Analysis of Vertical Array Recordings. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1789-1801.	3.0	104
16	System identification for evaluating soil-structure interaction effects in buildings from strong motion recordings. Earthquake Engineering and Structural Dynamics, 1998, 27, 869-885.	4.4	101
17	Broadband simulations for $M_w < 7.8$ southern San Andreas earthquakes: Ground motion sensitivity to rupture speed. Geophysical Research Letters, 2008, 35, .	4.0	95
18	NGA-West2 Site Database. Earthquake Spectra, 2014, 30, 1007-1024.	3.1	95

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19	Physically Parameterized Prediction Equations for Significant Duration in Active Crustal Regions. Earthquake Spectra, 2016, 32, 2057-2081.	3.1	94
20	Volumetric Strains of Clean Sands Subject to Cyclic Loads. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2008, 134, 1073-1085.	3.0	88
21	Relative Differences between Nonlinear and Equivalent-Linear 1-D Site Response Analyses. Earthquake Spectra, 2016, 32, 1845-1865.	3.1	81
22	Non-Ergodic Site Response in Seismic Hazard Analysis. Earthquake Spectra, 2017, 33, 1385-1414.	3.1	75
23	Dynamic Stiffness and Damping of a Shallow Foundation from Forced Vibration of a Field Test Structure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 344-353.	3.0	57
24	Proxy-Based V_S Estimation in Central and Eastern North America. Bulletin of the Seismological Society of America, 2017, 107, 117-131.	2.3	55
25	Documentation of soil conditions at liquefaction and non-liquefaction sites from 1999 Chiâ€Chi (Taiwan) earthquake. Soil Dynamics and Earthquake Engineering, 2004, 24, 647-657.	3.8	50
26	Kinematic Framework for Evaluating Seismic Earth Pressures on Retaining Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	3.0	50
27	A Screen Analysis Procedure for Seismic Slope Stability. Earthquake Spectra, 2003, 19, 697-712.	3.1	49
28	Ergodic site amplification model for central and eastern North America. Earthquake Spectra, 2020, 36, 42-68.	3.1	48
29	Lateral Performance of Full-Scale Bridge Abutment Wall with Granular Backfill. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 506-514.	3.0	47
30	Centrifuge Modeling Studies of Site Response in Soft Clay over Wide Strain Range. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	47
31	NGA-subduction global ground motion models with regional adjustment factors. Earthquake Spectra, 2022, 38, 456-493.	3.1	47
32	PEER NGA-East database. Earthquake Spectra, 2021, 37, 1331-1353.	3.1	46
33	Site Amplification Functions for Central and Eastern North America â€ Part II: Modular Simulation-Based Models. Earthquake Spectra, 2019, 35, 815-847.	3.1	43
34	Strong Ground Motion Attributes of the 2010 M_w 8.8 Maule, Chile, Earthquake. Earthquake Spectra, 2012, 28, 19-38.	3.1	41
35	Supplementing VS30 with H/V Spectral Ratios for Predicting Site Effects. Bulletin of the Seismological Society of America, 2017, 107, 2028-2042.	2.3	37
36	Cyclic Softening of Low-Plasticity Clay and Its Effect on Seismic Foundation Performance. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2008, 134, 1595-1608.	3.0	36

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37	The 8 June 2008 Mw 6.5 Achaia-Elia, Greece Earthquake: Source Characteristics, Ground Motions, and Ground Failure. <i>Earthquake Spectra</i> , 2010, 26, 399-424.	3.1	36
38	Reconnaissance of 2016 Central Italy Earthquake Sequence. <i>Earthquake Spectra</i> , 2018, 34, 1547-1555.	3.1	36
39	Taiwan-Specific Model for V_S Prediction Considering Between-Proxy Correlations. <i>Earthquake Spectra</i> , 2018, 34, 1973-1993.	3.1	35
40	Next-generation liquefaction database. <i>Earthquake Spectra</i> , 2020, 36, 939-959.	3.1	33
41	Comparison of Ground Motions from Hybrid Simulations to NGA Prediction Equations. <i>Earthquake Spectra</i> , 2011, 27, 331-350.	3.1	32
42	Case Study of Parallel Bridges Affected by Liquefaction and Lateral Spreading. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016, 142, .	3.0	31
43	Seismic Compression of Two Compacted Earth Fills Shaken by the 1994 Northridge Earthquake. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2004, 130, 461-476.	3.0	30
44	Empirical Linear Seismic Site Amplification in Central and Eastern North America. <i>Earthquake Spectra</i> , 2019, 35, 849-881.	3.1	28
45	Site Amplification Functions for Central and Eastern North America – Part I: Simulation Data Set Development. <i>Earthquake Spectra</i> , 2019, 35, 787-814.	3.1	27
46	Nonlinear site amplification model for ergodic seismic hazard analysis in Central and Eastern North America. <i>Earthquake Spectra</i> , 2020, 36, 69-86.	3.1	27
47	Liquefaction and Related Ground Failure from July 2019 Ridgecrest Earthquake Sequence. <i>Bulletin of the Seismological Society of America</i> , 2020, 110, 1549-1566.	2.3	27
48	Impact of Sequential Ground Motion Pairing on Mainshock-Aftershock Structural Response and Collapse Performance Assessment. <i>Journal of Structural Engineering</i> , 2018, 144, .	3.4	26
49	NGA-Subduction research program. <i>Earthquake Spectra</i> , 2022, 38, 783-798.	3.1	26
50	Characterization of Seismic Levee Fragility Using Field Performance Data. <i>Earthquake Spectra</i> , 2016, 32, 193-215.	3.1	25
51	Strong Ground Motion Characteristics from 2016 Central Italy Earthquake Sequence. <i>Earthquake Spectra</i> , 2018, 34, 1611-1637.	3.1	24
52	Approximate solution for seismic earth pressures on rigid walls retaining inhomogeneous elastic soil. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 97, 468-477.	3.8	23
53	Field-Testing of Structure on Shallow Foundation to Evaluate Soil-Structure Interaction Effects. <i>Earthquake Spectra</i> , 2015, 31, 2511-2534.	3.1	22
54	Subsurface Shear Wave Velocity Characterization Using P -Wave Seismograms in Central and Eastern North America. <i>Earthquake Spectra</i> , 2016, 32, 143-169.	3.1	22

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55	Epistemic Uncertainty in Site Response as Derived from One-Dimensional Ground Response Analyses. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	22
56	Cyclic Volumetric Strain Behavior of Sands with Fines of Low Plasticity. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	21
57	Evaluation of soil-structure interaction effects from system identification of structures subject to forced vibration tests. Soil Dynamics and Earthquake Engineering, 2019, 116, 747-760.	3.8	21
58	Forced vibration testing of buildings using the linear shaker seismic simulation (LSSS) testing method. Earthquake Engineering and Structural Dynamics, 2005, 34, 737-761.	4.4	20
59	Pitfalls of Deterministic Application of Nonlinear Site Factors in Probabilistic Assessment of Ground Motions. Earthquake Spectra, 2009, 25, 541-555.	3.1	20
60	Database for Earthquake Strong Motion Studies in Italy. Journal of Earthquake Engineering, 2009, 13, 852-881.	2.5	19
61	Active Faulting in Source Region of 2016-2017 Central Italy Event Sequence. Earthquake Spectra, 2018, 34, 1557-1583.	3.1	19
62	Prediction Equations for Estimating Shear-Wave Velocity from Combined Geotechnical and Geomorphic Indexes Based on Japanese Data Set. Bulletin of the Seismological Society of America, 2015, 105, 1919-1930.	2.3	18
63	Surface Faulting Caused by the 2016 Central Italy Seismic Sequence: Field Mapping and LiDAR/UAV Imaging. Earthquake Spectra, 2018, 34, 1585-1610.	3.1	18
64	SISMA (Site of Italian Strong Motion Accelerograms): a Web-Database of Ground Motion Recordings for Engineering Applications. AIP Conference Proceedings, 2008, , .	0.4	17
65	Ground Deformation Data from GEER Investigations of Ridgecrest Earthquake Sequence. Seismological Research Letters, 2020, 91, 2024-2034.	1.9	17
66	Site-specific seismic hazard analysis for Calabrian dam site using regionally customized seismic source and ground motion models. Soil Dynamics and Earthquake Engineering, 2017, 94, 179-192.	3.8	16
67	Calibration of a Semi-Stochastic Procedure for Simulating High-Frequency Ground Motions. Earthquake Spectra, 2013, 29, 1495-1519.	3.1	15
68	Damage to Roadway Infrastructure from 2016 Central Italy Earthquake Sequence. Earthquake Spectra, 2018, 34, 1721-1737.	3.1	14
69	Engineering Characteristics of Ground Motions Recorded in the 2019 Ridgecrest Earthquake Sequence. Bulletin of the Seismological Society of America, 2020, 110, 1474-1494.	2.3	14
70	NGA-Sub source and path database. Earthquake Spectra, 2022, 38, 799-840.	3.1	14
71	Ground Motion Recordings from the M _w 6.3 2009 L'Aquila Earthquake in Italy and their Engineering Implications. Earthquake Spectra, 2012, 28, 317-345.	3.1	13
72	Total Stress Analysis of Soft Clay Ground Response in Centrifuge Models. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	13

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73	Input ground motions for tall buildings with subterranean levels. Structural Design of Tall and Special Buildings, 2007, 16, 543-557.	1.9	12
74	Earthquake Loss Estimates and Policy Implications for Nonductile Concrete Buildings in Los Angeles. Earthquake Spectra, 2016, 32, 1951-1973.	3.1	12
75	Relational database used for ground-motion model development in the NGA-sub project. Earthquake Spectra, 2022, 38, 1529-1548.	3.1	12
76	Backbone curves with physical parameters for passive lateral response of homogeneous abutment backfills. Bulletin of Earthquake Engineering, 2016, 14, 3003-3023.	4.1	11
77	Modular Analytical Solutions for Foundation Damping in Soil-Structure Interaction Applications. Earthquake Spectra, 2016, 32, 1749-1768.	3.1	11
78	Site parameters applied in NGA-Sub database. Earthquake Spectra, 2022, 38, 494-520.	3.1	11
79	Multi-hazard system reliability of flood control levees. Soil Dynamics and Earthquake Engineering, 2019, 124, 345-353.	3.8	10
80	Hellenic Strong-Motion Database with Uniformly Assigned Source and Site Metadata for the Period 1972-2015. Seismological Research Letters, 2021, 92, 2065-2080.	1.9	10
81	Relational Database for Horizontal-to-Vertical Spectral Ratios. Seismological Research Letters, 2022, 93, 1075-1088.	1.9	10
82	Site response of sedimentary basins and other geomorphic provinces in southern California. Earthquake Spectra, 2022, 38, 2341-2370.	3.1	10
83	STRONG GROUND MOTIONS AND DAMAGE PATTERNS FROM THE 1999 DUZCE EARTHQUAKE IN TURKEY. Journal of Earthquake Engineering, 2006, 10, 693-724.	2.5	9
84	Validation of Duration Parameters from SCEC Broadband Platform Simulated Ground Motions. Seismological Research Letters, 2016, 87, 1355-1362.	1.9	9
85	Winkler Solution for Seismic Earth Pressures Exerted on Flexible Walls by Vertically Inhomogeneous Soil. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	9
86	Soil Profile Database and Site Classification for National Strong-Motion Stations in Western China. Seismological Research Letters, 2022, 93, 1930-1942.	1.9	9
87	Dynamic Response of a Model Levee on Sherman Island Peat: A Curated Data Set. Earthquake Spectra, 2014, 30, 639-656.	3.1	7
88	Factors and Processes Affecting Levee System Vulnerability. San Francisco Estuary and Watershed Science, 2016, 14, .	0.4	7
89	Seismic Levee System Fragility considering Spatial Correlation of Demands and Component Fragilities. Earthquake Spectra, 2016, 32, 2207-2228.	3.1	7
90	Procedures from International Guidelines for Assessing Seismic Risk to Flood-Control Levees. Earthquake Spectra, 2017, 33, 1191-1218.	3.1	7

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91	Development of a United States Community Shear Wave Velocity Profile Database. , 2018, , .		7
92	Winkler Stiffness Intensity for Flexible Walls Retaining Inhomogeneous Soil. , 2018, , .		7
93	California Ground Motion Vertical Array Database. Earthquake Spectra, 2019, 35, 2003-2015.	3.1	7
94	Modelling of Site Amplification via Large Scale Nonlinear Simulations with Applications to North America. , 2018, , .		6
95	Reset of Secondary Compression Clock for Peat by Cyclic Straining. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, 02815001.	3.0	5
96	Development of <i>V</i> _{<i>S</i>} Profile Database and Proxy-Based Models for <i>V</i> _{<i>S</i>} 30 Prediction in the Pacific Northwest Region of North America. Bulletin of the Seismological Society of America, 0, , .	2.3	5
97	Insights from California Vertical Arrays on the Effectiveness of Ground Response Analysis with Alternative Damping Models. Bulletin of the Seismological Society of America, 2019, , .	2.3	5
98	Validating predicted site response in sedimentary basins from 3D ground motion simulations. Earthquake Spectra, 2022, 38, 2135-2161.	3.1	5
99	Development of a Generalized Cross-Building Structural Response Reconstruction Model Using Strong Motion Data. Journal of Structural Engineering, 2022, 148, .	3.4	5
100	Ergodic site response model for subduction zone regions. Earthquake Spectra, 2022, 38, 841-864.	3.1	5
101	Next-Generation Liquefaction (NGL) Case History Database Structure. , 2018, , .		4
102	Risk-targeted alternatives to deterministic ground motion caps in U.S. seismic provisions. Earthquake Spectra, 2020, 36, 904-923.	3.1	4
103	Stress History-Dependent Secondary Compression of San Francisco Bay Region Old Bay Clays. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	4
104	Database on seismic response of instrumented flood control levees. Earthquake Spectra, 2020, 36, 924-938.	3.1	3
105	Centrifuge testing of soil-structure interaction effects on cyclic failure potential of fine-grained soil. Earthquake Spectra, 2021, 37, 1177-1198.	3.1	3
106	Simplified solution for seismic earth pressures exerted on flexible walls. Earthquake Spectra, 2022, 38, 1872-1892.	3.1	2
107	Impacts of 2020 Beirut Explosion on Port Infrastructure and Nearby Buildings. Natural Hazards Review, 2022, 23, .	1.5	2
108	Influence of Wall Flexibility on Seismic Earth Pressures in Vertically Homogeneous Soil. , 2017, , .		1

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109	Single-Frequency Method for Computing Seismic Earth Pressures. Springer Transactions in Civil and Environmental Engineering, 2021, , 1-10.	0.4	1
110	Application of empirical and simulation-based site amplification models for Central and Eastern North America to selected sites. Earthquake Spectra, 2021, 37, 1516-1533.	3.1	1
111	Comparison of Near-Fault Displacement Interpretations from Field and Aerial Data for the M6.5 and 7.1 Ridgecrest Earthquake Sequence Ruptures. Bulletin of the Seismological Society of America, 2021, 111, 2317-2333.	2.3	1
112	Region-specific linear site amplification model for peaty organic soil sites in Hokkaido, Japan. Earthquake Spectra, 2022, 38, 2207-2234.	3.1	1
113	Foundation Performance of the Millennium Tower in San Francisco, California: One-Dimensional Settlement Analyses. , 2022, , .		1
114	Methods for Probabilistic Seismic Levee System Reliability Analysis. , 2017, , .		0
115	Closure to “Epistemic Uncertainty in Site Response as Derived from One-Dimensional Ground Response Analyses” by Jonathan P. Stewart and Kioumars Afshari. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, 07021019.	3.0	0
116	Regional-Scale Geohazards Evaluation for Risk Assessment of Natural Gas Storage and Transmission Infrastructure. , 2021, , .		0
117	Foundation Performance of the Millennium Tower in San Francisco, California: Three-Dimensional Settlement and Tilt Analyses. , 2022, , .		0
118	Closure to “Stress History”-Dependent Secondary Compression of San Francisco Bay Region Old Bay Clays by Nathaniel Wagner, Micaela Largent, Jonathan P. Stewart, Christine Beyzaei, Debra Murphy, Jeremy Butkovitch, and John A. Egan. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	3.0	0