

Bruce L Kutter

List of Publications by Year in descending order

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111
papers

4,227
citations

109137

35
h-index

118652

62
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111
all docs

111
docs citations

111
times ranked

1540
citing authors

#	ARTICLE	IF	CITATIONS
1	Seismic Soil-Pile-Structure Interaction Experiments and Analyses. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1999, 125, 750-759.	1.5	546
2	Centrifuge modeling of load-deformation behavior of rocking shallow foundations. Soil Dynamics and Earthquake Engineering, 2005, 25, 773-783.	1.9	179
3	Capacity, Settlement, and Energy Dissipation of Shallow Footings Subjected to Rocking. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2008, 134, 1129-1141.	1.5	173
4	Behavior of Pile Foundations in Laterally Spreading Ground during Centrifuge Tests. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 1378-1391.	1.5	164
5	Elastic-viscoplastic modelling of the rate-dependent behaviour of clays. Geotechnique, 1992, 42, 427-441.	2.2	149
6	Observed Seismic Lateral Resistance of Liquefying Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2000, 126, 898-906.	1.5	130
7	Liquefaction Mechanism for Layered Soils. Journal of Geotechnical Engineering, 1994, 120, 737-755.	0.4	110
8	Experience with the Use of Methylcellulose as a Viscous Pore Fluid in Centrifuge Models. Geotechnical Testing Journal, 1998, 21, 365.	0.5	106
9	Centrifuge Modeling of Bridge Systems Designed for Rocking Foundations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2012, 138, 335-344.	1.5	103
10	Shake Table Test of Large-Scale Bridge Columns Supported on Rocking Shallow Foundations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	1.5	92
11	LEAP-GWU-2015 experiment specifications, results, and comparisons. Soil Dynamics and Earthquake Engineering, 2018, 113, 616-628.	1.9	92
12	Centrifuge Modeling of Transport Processes for Pollutants in Soils. Journal of Geotechnical Engineering, 1988, 114, 185-205.	0.4	88
13	Nonlinear Seismic Soil-Pile Structure Interaction. Earthquake Spectra, 1998, 14, 377-396.	1.6	88
14	Dynamic Response of Saturated Dense Sand in Laminated Centrifuge Container. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 598-609.	1.5	85
15	Characterization of rocking shallow foundations using centrifuge model tests. Earthquake Engineering and Structural Dynamics, 2012, 41, 1043-1060.	2.5	83
16	Seismic soil-“foundation” structure interaction observed in geotechnical centrifuge experiments. Soil Dynamics and Earthquake Engineering, 2013, 48, 162-174.	1.9	80
17	Strength Loss and Localization at Silt Interlayers in Slopes of Liquefied Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 1192-1202.	1.5	78
18	Static Pushover Analyses of Pile Groups in Liquefied and Laterally Spreading Ground in Centrifuge Tests. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2007, 133, 1055-1066.	1.5	76

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19	Dynamic Experiments and Analyses of a Pile-Group-Supported Structure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2001, 127, 585-596.	1.5	73
20	Application and Validation of Practical Tools for Nonlinear Soil-Foundation Interaction Analysis. Earthquake Spectra, 2010, 26, 111-129.	1.6	73
21	Centrifuge Modeling of Seismically Induced Uplift for the BART Transbay Tube. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 754-765.	1.5	70
22	Effects of Moment-to-Shear Ratio on Combined Cyclic Load-Displacement Behavior of Shallow Foundations from Centrifuge Experiments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 1044-1055.	1.5	69
23	Shear Localization Due to Liquefaction-Induced Void Redistribution in a Layered Infinite Slope. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2006, 132, 1293-1303.	1.5	61
24	Liquefaction experiment and analysis projects (LEAP): Summary of observations from the planning phase. Soil Dynamics and Earthquake Engineering, 2018, 113, 714-743.	1.9	57
25	Postshaking Shear Strain Localization in a Centrifuge Model of a Saturated Sand Slope. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2008, 134, 164-174.	1.5	56
26	Contact Interface Model for Shallow Foundations Subjected to Combined Cyclic Loading. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 407-419.	1.5	52
27	Nonlinear dynamic foundation and frame structure response observed in geotechnical centrifuge experiments. Soil Dynamics and Earthquake Engineering, 2013, 50, 117-133.	1.9	48
28	Seismic Design of Rocking Shallow Foundations: Displacement-Based Methodology. Journal of Bridge Engineering, 2014, 19, .	1.4	46
29	Settlement, Sliding, and Liquefaction Remediation of Layered Soil. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1999, 125, 968-978.	1.5	45
30	FEM Analysis of Dynamic Soil-Pile-Structure Interaction in Liquefied and Laterally Spreading Ground. Earthquake Spectra, 2013, 29, 733-755.	1.6	45
31	Liquefaction-Induced Softening of Load Transfer between Pile Groups and Laterally Spreading Crusts. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2007, 133, 91-103.	1.5	42
32	Gravity-Scaled Tests on Blast-Induced Soil-Structure Interaction. Journal of Geotechnical Engineering, 1988, 114, 431-447.	0.4	40
33	Liquefaction-Induced Lateral Spreading of Mildly Sloping Ground. Journal of Geotechnical Engineering, 1994, 120, 2236-2243.	0.4	40
34	Dynamic centrifuge model tests on clay embankments. Geotechnique, 1989, 39, 91-106.	2.2	37
35	Stress-strain response of the LEAP-2015 centrifuge tests and numerical predictions. Soil Dynamics and Earthquake Engineering, 2018, 113, 804-818.	1.9	37
36	Demonstration of Compatible Yielding between Soil-Foundation and Superstructure Components. Journal of Structural Engineering, 2013, 139, 1408-1420.	1.7	35

#	ARTICLE	IF	CITATIONS
37	Effect of Footing Shape and Embedment on the Settlement, Recentering, and Energy Dissipation of Shallow Footings Subjected to Rocking. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	1.5	32
38	Strength Parameters for Bearing Capacity of Sand. Journal of Geotechnical Engineering, 1988, 114, 491-498.	0.4	31
39	Seismic Design of Pile Foundations for Liquefaction Effects. Geotechnical, Geological and Earthquake Engineering, 2007, , 277-302.	0.1	31
40	Fast Stacking and Phase Corrections of Shear Wave Signals in a Noisy Environment. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2008, 134, 1154-1165.	1.5	31
41	Probabilistic Seismic Performance of Rocking-Foundation and Hinging-Column Bridges. Earthquake Spectra, 2012, 28, 1423-1446.	1.6	31
42	Nonlinear Soil-€"Foundation-€"Structure and Structure-€"Soil-€"Structure Interaction: Centrifuge Test Observations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	1.5	29
43	Design Considerations for Rocking Foundations on Unattached Piles. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	1.5	29
44	Centrifuge Tests of Adjacent Mat-Supported Buildings Affected by Liquefaction. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	1.5	29
45	Grain Size Analysis and Maximum and Minimum Dry Density Testing of Ottawa F-65 Sand for LEAP-UCD-2017. , 2020, , 31-44.		29
46	Nonlinear Soil-€"Foundation-€"Structure and Structure-€"Soil-€"Structure Interaction: Engineering Demands. Journal of Structural Engineering, 2015, 141, .	1.7	28
47	New Tool for Shear Wave Velocity Measurements in Model Tests. Geotechnical Testing Journal, 2000, 23, 444-453.	0.5	27
48	Soil-Pile-Superstructure Interaction in Liquefiable Sand. Transportation Research Record, 1997, 1569, 55-64.	1.0	26
49	Effects of Layer Thickness and Density on Settlement and Lateral Spreading. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 603-614.	1.5	25
50	Rationale for Shallow Foundation Rocking Provisions in ASCE 41-13. Earthquake Spectra, 2016, 32, 1097-1119.	1.6	24
51	Database of rocking shallow foundation performance: Dynamic shaking. Earthquake Spectra, 2020, 36, 960-982.	1.6	24
52	Seismic Deformation of Bar Mat Mechanically Stabilized Earth Walls. I: Centrifuge Tests. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 14-25.	1.5	23
53	Effects of capillary number, Bond number, and gas solubility on water saturation of sand specimens. Canadian Geotechnical Journal, 2013, 50, 133-144.	1.4	23
54	Static and seismic stability of sensitive clay slopes. Soil Dynamics and Earthquake Engineering, 2015, 79, 118-129.	1.9	22

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55	Centrifuge Testing of the Seismic Performance of a Submerged Cut-and-Cover Tunnel in Liquefiable Soil. , 2008, , .		19
56	Centrifuge modeling and numerical analysis on seismic site response of deep offshore clay deposits. Engineering Geology, 2017, 227, 54-68.	2.9	19
57	LEAP-UCD-2017 Comparison of Centrifuge Test Results. , 2020, , 69-103.		18
58	LEAP-UCD-2017 V. 1.01 Model Specifications. , 2020, , 3-29.		18
59	Validation of ASCE 41-13 Modeling Parameters and Acceptance Criteria for Rocking Shallow Foundations. Earthquake Spectra, 2016, 32, 1121-1140.	1.6	17
60	Stability of Leaning Towers. Journal of Geotechnical Engineering, 1991, 117, 297-318.	0.4	16
61	Contraction, Dilation, and Failure of Sand in Triaxial, Torsional, and Rotational Shear Tests. Journal of Engineering Mechanics - ASCE, 2009, 135, 1155-1165.	1.6	15
62	Seismic Behavior of Frame-Wall-Rocking Foundation Systems. I: Test Program and Slow Cyclic Results. Journal of Structural Engineering, 2015, 141, 04015059.	1.7	14
63	Database of rocking shallow foundation performance: Slow-cyclic and monotonic loading. Earthquake Spectra, 2020, 36, 1585-1606.	1.6	14
64	Twenty-Four Centrifuge Tests to Quantify Sensitivity of Lateral Spreading to Dr and PGA. , 2018, , .		13
65	Earthquake Deformation of Centrifuge Model Banks. Journal of Geotechnical Engineering, 1984, 110, 1697-1714.	0.4	12
66	Seismic Deformation of Bar Mat Mechanically Stabilized Earth Walls. II: A Multiblock Model. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 26-35.	1.5	12
67	Experimental Observations of Inertial and Lateral Spreading Loads on Pile Groups during Earthquakes. , 2005, , 1.		12
68	Modeling Input Motion Boundary Conditions for Simulations of Geotechnical Shaking Table Tests. Earthquake Spectra, 2010, 26, 349-369.	1.6	12
69	Centrifuge Testing of Rocking Foundations on Saturated Sand and Unconnected Piles: The Fluid Response. , 2012, , .		12
70	Seismic System Identification Using Centrifuge-based Soil-Structure Interaction Test Data. Journal of Earthquake Engineering, 2013, 17, 469-496.	1.4	11
71	New Database for Foundation and Ground Performance in Liquefaction Experiments. Earthquake Spectra, 2015, 31, 2485-2509.	1.6	11
72	LEAP-GWU-2015 centrifuge test at UC Davis. Soil Dynamics and Earthquake Engineering, 2018, 113, 663-670.	1.9	11

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73	Seismic Behavior of Frame-Wall-Rocking Foundation Systems. II: Dynamic Test Phase. Journal of Structural Engineering, 2015, 141, .	1.7	10
74	Comparison of LEAP-UCD-2017 CPT Results. , 2020, , 117-129.		10
75	Centrifuge Model Tests of Liquefaction-Induced Downdrag on Piles in Uniform Liquefiable Deposits. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	1.5	10
76	Seismically Induced Flow Slide on Centrifuge. Journal of Geotechnical Engineering, 1988, 114, 1442-1449.	0.4	8
77	Effect of Critical Contact Area Ratio on Moment Capacity of Rocking Shallow Footings. , 2008, , .		8
78	Discussion of "Single Piles in Lateral Spreads: Field Bending Moment Evaluation" by Ricardo Dobry, Tarek Abdoun, Thomas D. O'Rourke, and S.H. Goh. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 529-531.	1.5	7
79	Effects of Thixotropy and Cement Content on the Sensitivity of Soft Remolded Clay. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	1.5	7
80	LEAP-ASIA-2019: Validation of centrifuge experiments and the generalized scaling law on liquefaction-induced lateral spreading. Soil Dynamics and Earthquake Engineering, 2022, 157, 107237.	1.9	7
81	Numerical Investigation of Mechanisms Affecting Performance of Cyclically Loaded Tension Piles in Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, 04019086.	1.5	6
82	Deformation of centrifuge models of clay embankments due to "bumpy road" earthquakes. International Journal of Soil Dynamics and Earthquake Engineering, 1983, 2, 199-205.	0.3	5
83	Physical modelling of dynamic behavior of soil-foundation-superstructure systems. International Journal of Physical Modelling in Geotechnics, 2006, 6, 01-12.	0.5	5
84	Constant \tan^2 and Constant Volume Friction Angles Are Different. Geotechnical Testing Journal, 1997, 20, GTJ19970006.	0.5	5
85	Centrifuge Modeling of Cyclic Degradation of Axially Loaded Piles in Sand for Offshore Wind Turbine Structures. International Journal of Offshore and Polar Engineering, 2019, 29, 172-181.	0.3	5
86	Numerical Simulation of a Soil Model-Model Container-Centrifuge Shaking Table System. , 2008, , .		4
87	LEAP-2017: Comparison of the Type-B Numerical Simulations with Centrifuge Test Results. , 2020, , 187-218.		4
88	Centrifuge Testing of Remediation of Liquefaction at Bridge Sites. Transportation Research Record, 1998, 1633, 26-37.	1.0	3
89	Discussion of "Analyzing Liquefaction-Induced Lateral Spreads Using Strength Ratios" by S. M. Olson and C. I. Johnson. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 2008-2010.	1.5	3
90	Metrics for the Comparison of Acceleration Time Histories. , 2017, , .		3

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91	Effects of the ratio between body forces and inter-particle forces on maximum void ratio. Soils and Foundations, 2020, 60, 1-12.	1.3	3
92	Nonlinear Shear Wave Propagation in Strain Stiffening and Strain Softening Soil. , 2008, , .		2
93	Effect of earthquake-induced axial load fluctuations on asymmetric frame-wall rocking foundation systems. Earthquake Engineering and Structural Dynamics, 2015, 44, 1997-2013.	2.5	2
94	Comparison of Liquefaction Constitutive Models for a Hypothetical Sand. , 2017, , .		2
95	NHERI Centrifuge Facility: Large-Scale Centrifuge Modeling in Geotechnical Research. Frontiers in Built Environment, 2020, 6, .	1.2	2
96	Measuring Vertical Displacement Using Laser Lines and Cameras. International Journal of Physical Modelling in Geotechnics, 0, , 1-1.	0.5	2
97	LEAP-UCD-2017 Centrifuge Test at University of California, Davis. , 2020, , 255-276.		2
98	Experimental Performance of a Seawall Model Under Seismic Conditions. Soils and Foundations, 2000, 40, 77-91.	1.3	1
99	<title>Visualization of experimental earthquake data</title>. , 2003, , .		1
100	The UC Davis High-Speed Wireless Data Acquisition System. , 2007, , .		1
101	Discrepancy Metrics and Sensitivity Analysis of Dynamic Soil Response. , 2018, , .		1
102	Closure to "Earthquake Deformation of Centrifuge Model Banks" by Bruce L. Kutter (December, 1984, Vol. 110, No. 12). Journal of Geotechnical Engineering, 1987, 113, 72-73.	0.4	0
103	Discussion of "Liquefaction Evaluation Procedure" by Steve J. Poulos, Gonzalo Castro, and John W. France (June, 1985, Vol. 111, No. 6). Journal of Geotechnical Engineering, 1988, 114, 243-246.	0.4	0
104	Closure to "Strength Parameters for Bearing Capacity of Sand" by Bruce L. Kutter, Abbas Abghari, and James A. Cheney (April, 1988, Vol. 114, No. 4). Journal of Geotechnical Engineering, 1989, 115, 1818-1819.	0.4	0
105	Development of Innovative Foundation Systems to Optimize Seismic Behavior of Bridge Structures. , 2008, , .		0
106	Influence of Physical Modeling on Adoption of Rocking Foundations in Practice. , 2012, , .		0
107	Effects of Ground Motion Characteristics on Seismic Response of Rocking-Foundation Bridges. , 2012, , .		0
108	Performance of a Soil Liquefaction Model. , 2017, , .		0

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109	Editorial: Development of LEAP and the planning phase of the US project. Soil Dynamics and Earthquake Engineering, 2018, 113, 615.	1.9	0
110	A New Technique for Monitoring Movement of Buried Objects Using an Electrode Switching System. Geotechnical Testing Journal, 2008, 31, 381-392.	0.5	0
111	Difference and Sensitivity Analyses of the LEAP-2017 Experiments. , 2020, , 131-156.		0