Nicholas Sitar

List of Publications by Year
in descending order

91 papers	5,516 citations	101543 36 h-index	85541 71 g-index
94 all docs	94 docs citations	94 times ranked	3998 citing authors

#	Article	IF	Citations
1	Particle transport through porous media. Water Resources Research, 1986, 22, 1901-1921.	4.2	713
2	The 2002 Denali Fault Earthquake, Alaska: A Large Magnitude, Slip-Partitioned Event. Science, 2003, 300, 1113-1118.	12.6	359
3	Nonaqueous phase liquid transport and cleanup: 1. Analysis of mechanisms. Water Resources Research, 1988, 24, 1247-1258.	4.2	329
4	Cemented Sands under Static Loading. Journal of the Geotechnical Engineering Division, ASCE, 1981, 107, 799-817.	0.2	299
5	Evaluation of factors controlling earthquake-induced landslides caused by Chi-Chi earthquake and comparison with the Northridge and Loma Prieta events. Engineering Geology, 2004, 71, 79-95.	6.3	270
6	Analysis of Rainfall-Induced Debris Flows. Journal of Geotechcnical Engineering, 1995, 121, 544-552.	0.4	251
7	Hydrologic conditions leading to debris-flow initiation. Canadian Geotechnical Journal, 1990, 27, 789-801.	2.8	233
8	Analysis of topographic amplification of inclined shear waves in a steep coastal bluff. Bulletin of the Seismological Society of America, 1997, 87, 692-700.	2.3	168
9	Processes of coastal bluff erosion in weakly lithified sands, Pacifica, California, USA. Geomorphology, 2008, 97, 483-501.	2.6	167
10	Seismic Earth Pressures on Cantilever Retaining Structures. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2010, 136, 1324-1333.	3.0	135
11	Performance of Geosynthetic Reinforced Slopes at Failure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1998, 124, 670-683.	3.0	128
12	Wireless sensors for wildfire monitoring. , 2005, 5765, 477.		122
13	Deformation Characteristics of Reinforced Sand in Direct Shear. Journal of Geotechcnical Engineering, 1989, 115, 1134-1147.	0.4	108
14	Nonaqueous phase liquid transport and cleanup: 2. Experimental studies. Water Resources Research, 1988, 24, 1259-1269.	4.2	105
15	Firstâ€order reliability approach to stochastic analysis of subsurface flow and contaminant transport. Water Resources Research, 1987, 23, 794-804.	4.2	96
16	System reliability approach to rock slope stability. International Journal of Rock Mechanics and Minings Sciences, 2006, 43, 847-859.	5.8	93
17	Influence of Kinematics on Landslide Mobility and Failure Mode. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 716-728.	3.0	87
18	Time Integration in Discontinuous Deformation Analysis. Journal of Engineering Mechanics - ASCE, 2004, 130, 249-258.	2.9	86

#	Article	IF	Citations
19	Centrifuge Model Studies of the Seismic Response of Reinforced Soil Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2006, 132, 388-400.	3.0	81
20	Limit Equilibrium as Basis for Design of Geosynthetic Reinforced Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1998, 124, 684-698.	3.0	80
21	Reliability analysis of contaminant transport in saturated porous media. Water Resources Research, 1994, 30, 2435-2448.	4.2	71
22	Dynamic Displacement of a Block on an Inclined Plane: Analytical, Experimental and DDA Results. Rock Mechanics and Rock Engineering, 2005, 38, 153-167.	5.4	69
23	Geotechnical Properties of Cemented Sands in Steep Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 1359-1366.	3.0	69
24	A spectral method for clustering of rock discontinuity sets. International Journal of Rock Mechanics and Minings Sciences, 2006, 43, 1052-1061.	5.8	67
25	Rock Wedge Stability Analysis Using System Reliability Methods. Rock Mechanics and Rock Engineering, 2007, 40, 419-427.	5.4	66
26	Stability of Steep Slopes in Cemented Sands. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 43-51.	3.0	63
27	Displacement Accuracy of Discontinuous Deformation Analysis Method Applied to Sliding Block. Journal of Engineering Mechanics - ASCE, 2002, 128, 1158-1168.	2.9	62
28	Emplacement of nonaqueous liquids in the vadose zone. Water Resources Research, 1993, 29, 705-722.	4.2	55
29	Seismic Response of Steep Slopes in Cemented Soils. Journal of Geotechcnical Engineering, 1983, 109, 210-227.	0.4	51
30	Detection and location of rock falls using seismic and infrasound sensors. Engineering Geology, 2015, 193, 49-60.	6.3	49
31	Landslides and liquefaction triggered by the M 7.9 Denali Fault earthquake of 3 November 2002. GSA Today, 2003, 13, 4.	2.0	48
32	Investigation of slope-stability kinematics using discontinuous deformation analysis. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 753-762.	5.8	42
33	Rock fall dynamics and deposition: an integrated analysis of the 2009 Ahwiyah Point rock fall, Yosemite National Park, USA. Earth Surface Processes and Landforms, 2012, 37, 680-691.	2.5	42
34	The importance of distribution types on finite element analyses of foundation settlement. Computers and Geotechnics, 2009, 36, 474-483.	4.7	41
35	Seismic Performance of Earth Structures during the February 2010 Maule, Chile, Earthquake: Dams, Levees, Tailings Dams, and Retaining Walls. Earthquake Spectra, 2012, 28, 75-96.	3.1	39
36	Probabilistic evaluation of seismically induced permanent deformation of slopes. Soil Dynamics and Earthquake Engineering, 2013, 44, 67-77.	3.8	39

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37	Simplified Method for Evaluating Seismic Stability of Steep Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2002, 128, 119-128.	3.0	38
38	Deformationâ€Based Model for Reinforced Sand. Journal of Geotechcnical Engineering, 1990, 116, 1153-1170.	0.4	37
39	Inference of discontinuity trace length distributions using statistical graphical models. International Journal of Rock Mechanics and Minings Sciences, 2006, 43, 877-893.	5.8	36
40	Reliability approach to slope stability analysis with spatially correlated soilproperties. Soils and Foundations, 2013, 53, 1-10.	3.1	36
41	Seismically Induced Lateral Earth Pressures on Retaining Structures and Basement Walls. , 2012, , .		34
42	Seismic Earth Pressures on Retaining Structures and Basement Walls in Cohesionless Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	33
43	On seismic response of stiff and flexible retaining structures. Soil Dynamics and Earthquake Engineering, 2016, 91, 284-293.	3.8	27
44	Geotechnical Reconnaissance of the 2002 Denali Fault, Alaska, Earthquake. Earthquake Spectra, 2004, 20, 639-667.	3.1	25
45	Influence of Stochastic Discontinuity Network Parameters on the Formation of Removable Blocks in Rock Slopes. Rock Mechanics and Rock Engineering, 2008, 41, 563-585.	5.4	25
46	A fast direct search algorithm for contact detection of convex polygonal or polyhedral particles. Computers and Geotechnics, 2017, 87, 76-85.	4.7	25
47	Stability investigation and stabilization of a heavily fractured and loosened rock slope during construction of a strategic hydropower station in China. Engineering Geology, 2017, 221, 70-81.	6.3	25
48	Generalized contact model for polyhedra in threeâ€dimensional discontinuous deformation analysis. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 1471-1492.	3.3	25
49	Mobilization of trichloroethene (TCE) during ethanol flooding in uniform and layered sand packs under confined conditions. Water Resources Research, 1999, 35, 3275-3289.	4.2	24
50	Sensitivity analysis in aquifer studies. Water Resources Research, 1977, 13, 733-737.	4.2	23
51	Seismic Earth Pressures: Fact or Fiction?. , 2010, , .		23
52	Formation of Shear Zones in Reinforced Sand. Journal of Geotechcnical Engineering, 1996, 122, 873-885.	0.4	22
53	Effective Elastic Stiffness for Periodic Masonry Structures via Eigenstrain Homogenization. Journal of Materials in Civil Engineering, 2007, 19, 269-277.	2.9	19
54	Static and Dynamic Axial Response of Drilled Piers. II: Numerical Simulation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 1143-1153.	3.0	19

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55	Effect of Water Sorption on Carbonate Rock Expansivity. Canadian Geotechnical Journal, 1975, 12, 179-186.	2.8	16
56	Seismic response of retaining walls with cohesive backfill: Centrifuge model studies. Soil Dynamics and Earthquake Engineering, 2016, 90, 411-419.	3.8	16
57	Direct Estimation of Yield Acceleration in Slope Stability Analyses. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 111-115.	3.0	15
58	Hydrological control shift from river level to rainfall in the reactivated Guobu slope besides the Laxiwa hydropower station in China. Remote Sensing of Environment, 2021, 265, 112664.	11.0	15
59	Effect of element size on the static finite element analysis of steep slopes. International Journal for Numerical and Analytical Methods in Geomechanics, 2001, 25, 1361-1376.	3.3	12
60	Coseismic Tectonic Surface Deformation during the 2010 Maule, Chile, M_w8.8 Earthquake. Earthquake Spectra, 2012, 28, 39-54.	3.1	11
61	Assessment of Seismic Slope Stability Using GIS Modeling. Annals of GIS, 2000, 6, 121-128.	3.1	10
62	Fault-Related Surface Deformation. Earthquake Spectra, 2001, 17, 19-36.	3.1	10
63	Modeling of Dynamic Rockâ€“Fluid Interaction Using Coupled 3-D Discrete Element and Lattice Boltzmann Methods. Rock Mechanics and Rock Engineering, 2019, 52, 5161-5180.	5.4	10
64	Horizontal ethanol floods in clean, uniform, and layered sand packs under confined conditions. Water Resources Research, 1999, 35, 3291-3302.	4.2	9
65	Dynamic Centrifuge Study of Seismically Induced Lateral Earth Pressures on Retaining Structures. , 2008, , .		8
66	Coupled threeâ€dimensional discrete elementâ€lattice Boltzmann methods for fluidâ€solid interaction with polyhedral particles. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 2270-2287.	3.3	8
67	DDAMLâ€”discontinuous deformation analysis markup language. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 467-474.	5.8	7
68	Monitoring of Coastal Bluff Stability Using High Resolution 3 D Laser Scanning. , 2005, , 1.		7
69	Parallel and scalable block system generation. Computers and Geotechnics, 2017, 89, 168-178.	4.7	7
70	Performance of Geosynthetic Reinforced Slopes at Failure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2000, 126, 281-286.	3.0	6
71	Uplift Pressure in Crack Below Dam. Journal of Energy Engineering - ASCE, 1983, 109, 207-221.	1.9	5
72	Closure to â€œ Deformation Characteristics of Reinforced Sand in Direct Shear â€• by Scott E. Shewbridge and Nicholas Sitar (August, 1989, Vol. 115, No. 8). Journal of Geotechcnical Engineering, 1991, 117, 1812-1817.	0.4	5

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73	Landslides. Earthquake Spectra, 2001, 17, 61-76.	3.1	5
74	Shear strength and slope stability in a shallow clayey soil regolith. Reviews in Engineering Geology, 1995, , 1-11.	0.1	3
75	Smart element method II. An element based on the finite Eshelby tensor. International Journal for Numerical Methods in Engineering, 2005, 64, 1303-1333.	2.8	3
76	Static and Dynamic Axial Response of Drilled Piers. I: Field Tests. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 1133-1142.	3.0	3
77	System reliability approach for rock scour. International Journal of Rock Mechanics and Minings Sciences, 2016, 85, 102-111.	5.8	3
78	Reliability analysis of the influence of seepage on levee stability. Environmental Geotechnics, 2018, , 1-10.	2.3	3
79	Influence of depositional fabric on mechanical properties of naturally deposited sands. Geotechnique, 2024, 74, 250-264.	4.0	3
80	Reply [to â€œComments on â€˜Particle transport through porous mediaâ€™ by Laura M. McDowellâ€Boyer, James R. Hunt, and Nicholas Sitarâ€]. Water Resources Research, 1987, 23, 1699-1699.	4.2	2
81	Method for Determination of Hydraulic Conductivity in Unsaturated Porous Media. Journal of Irrigation and Drainage Engineering - ASCE, 1991, 117, 64-78.	1.0	2
82	3-D Stratigraphy and Root Geometry from Trench and Ground-Based LiDAR Mapping. , 2012, , .		2
83	Stochastic Analysis of Levee Stability Subject to Variable Seepage Conditions. , 2017, , .		2
84	Discussion by â€œStrain Compatibility Design Method for Reinforced Earth Wallsâ€•by Ilan Juran and Chao L. Chen (April, 1989, Vol. 115, No. 4). Journal of Geotechcnical Engineering, 1992, 118, 318-321.	0.4	1
85	Limit Equilibrium as Basis for Design of Geosynthetic Reinforced Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2000, 126, 286-288.	3.0	1
86	New Approaches to Stability Analysis of Steep Coastal Bluffs. , 2008, , .		1
87	Comparison of Pseudo-Static Limit Equilibrium and Elastic Wave Equation Analyses of Dynamic Earth Pressures on Retaining Structures. , 2018, , .		1
88	The Hayward fault. , 2006, , 273-331.		1
89	Microstructural differences between naturally-deposited and laboratory beach sands. Granular Matter, 2022, 24, 9.	2.2	1
90	Soil-Structure Interaction Effects on Seismically Isolated Nuclear Power Plants. , 2015, , .		0

#	Article	IF	Citations
91	Seismic Earth Pressure: Pitfalls and Recommendations. , 2022, , .		0