Hanlong Liu

List of Publications by Year
in descending order

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93 papers	2,977 citations	172457 29 h-index	182427 51 g-index
93 all docs	93 docs citations	93 times ranked	1309 citing authors

#	Article	IF	Citations
1	Elastoplastic Constitutive Model for Rockfill Materials Considering Particle Breakage. International Journal of Geomechanics, 2017, 17, .	2.7	193
2	Influence of Particle Breakage on Critical State Line of Rockfill Material. International Journal of Geomechanics, 2016, 16, .	2.7	177
3	Efficient reliability analysis of earth dam slope stability using extreme gradient boosting method. Acta Geotechnica, 2020, 15, 3135-3150.	5.7	177
4	Strength, stiffness, and microstructure characteristics of biocemented calcareous sand. Canadian Geotechnical Journal, 2019, 56, 1502-1513.	2.8	148
5	Probabilistic stability analysis of earth dam slope under transient seepage using multivariate adaptive regression splines. Bulletin of Engineering Geology and the Environment, 2020, 79, 2763-2775.	3.5	143
6	Particle breakage and deformation of carbonate sands with wide range of densities during compression loading process. Acta Geotechnica, 2017, 12, 1177-1184.	5.7	129
7	Effect of Intermediate Principal-Stress Ratio on Particle Breakage of Rockfill Material. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	111
8	Restraint of Particle Breakage by Biotreatment Method. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	109
9	Particle breakage and energy dissipation of carbonate sands under quasi-static and dynamic compression. Acta Geotechnica, 2019, 14, 1741-1755.	5.7	84
10	Strength and Deformation of Rockfill Material Based on Large-Scale Triaxial Compression Tests. II: Influence of Particle Breakage. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	82
11	Strength and Deformation of Rockfill Material Based on Large-Scale Triaxial Compression Tests. I: Influences of Density and Pressure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	77
12	Stress-Strain-Strength Response and Ductility of Gravels Improved by Polyurethane Foam Adhesive. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	75
13	Similarity solution for cavity expansion in thermoplastic soil. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 274-294.	3.3	74
14	Influence of Fiber Content and Length on Engineering Properties of MICP-Treated Coral Sand. Geomicrobiology Journal, 2020, 37, 582-594.	2.0	68
15	Evolution of particle breakage and volumetric deformation of binary granular soils under impact load. Granular Matter, 2017, 19, 1.	2.2	67
16	Performance of a geothermal energy deicing system for bridge deck using a pile heat exchanger. International Journal of Energy Research, 2019, 43, 596-603.	4.5	61
17	Three-dimensional effects in low-strain integrity testing of piles: analytical solution. Canadian Geotechnical Journal, 2016, 53, 225-235.	2.8	56
18	Constitutive Modeling for Transparent Granular Soils. International Journal of Geomechanics, 2017, 17, .	2.7	53

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19	Gradation-Dependent Thermal Conductivity of Sands. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	47
20	Toe-Bearing Capacity of Precast Concrete Piles through Biogrouting Improvement. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	47
21	Macro-meso effects of gradation and particle morphology on the compressibility characteristics of calcareous sand. Bulletin of Engineering Geology and the Environment, 2018, 77, 1047-1055.	3.5	44
22	Influence of Intermediate Principal Stress on the Strength and Dilatancy Behavior of Rockfill Material. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	43
23	Lateral dynamic response of a pipe pile in saturated soil layer. International Journal for Numerical and Analytical Methods in Geomechanics, 2016, 40, 159-184.	3.3	41
24	Grouted gravel column-supported highway embankment over soft clay: case study. Canadian Geotechnical Journal, 2015, 52, 1725-1733.	2.8	39
25	Predicting mining collapse: Superjerks and the appearance of record-breaking events in coal as collapse precursors. Physical Review E, 2017, 96, 023004.	2.1	38
26	Thermo-mechanical behavior of energy pile under different climatic conditions. Acta Geotechnica, 2019, 14, 1495-1508.	5.7	34
27	Effect of temperature on behaviour of red clayâ€“structure interface. Canadian Geotechnical Journal, 2019, 56, 126-134.	2.8	33
28	Flat Cavity Expansion: Theoretical Model and Application to the Interpretation of the Flat Dilatometer Test. Journal of Engineering Mechanics - ASCE, 2016, 142, .	2.9	32
29	Model Tests on Soil Movement during the Installation of Piles in Transparent Granular Soil. International Journal of Geomechanics, 2017, 17, .	2.7	30
30	A constitutive model for the state-dependent behaviors of rockfill material considering particle breakage. Science China Technological Sciences, 2014, 57, 1636-1646.	4.0	27
31	Probabilistic Risk Assessment of unsaturated Slope Failure Considering Spatial Variability of Hydraulic Parameters. KSCE Journal of Civil Engineering, 2019, 23, 5032-5040.	1.9	27
32	Effect of particle shape of glass beads on the strength and deformation of cemented sands. Acta Geotechnica, 2019, 14, 2123-2131.	5.7	27
33	Biocarbonation of reactive magnesia for soil improvement. Acta Geotechnica, 2021, 16, 1113-1125.	5.7	27
34	Constitutive Modeling for Two Sands under High Pressure. International Journal of Geomechanics, 2021, 21, .	2.7	27
35	Transitional Behaviors in Well-Graded Coarse Granular Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	26
36	Influence of Temperature on the Volume Change Behavior of Saturated Sand. Geotechnical Testing Journal, 2018, 41, 20160308.	1.0	26

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37	Intermittent flow under constant forcing: Acoustic emission from creep avalanches. Applied Physics Letters, 2018, 112, .	3.3	25
38	Research advances and challenges in biogeotechnologies. Geotechnical Research, 2019, 6, 144-155.	1.4	25
39	Influences of reservoir water level drawdown on slope stability and reliability analysis. Georisk, 2019, 13, 145-153.	3.5	24
40	Strength and Dilatancy Behaviors of Dense Modeled Rockfill Material in General Stress Space. International Journal of Geomechanics, 2016, 16, 04016015.	2.7	20
41	Gradation affects basic mechanical characteristics of Chinese calcareous sand as airport subgrade of reefs. Marine Georesources and Geotechnology, 2020, 38, 706-715.	2.1	20
42	Dynamic properties of polyurethane foam adhesive-reinforced gravels. Science China Technological Sciences, 2021, 64, 535-547.	4.0	20
43	Kaolin-nucleation-based biotreated calcareous sand through unsaturated percolation method. Acta Geotechnica, 2022, 17, 3181-3193.	5.7	20
44	New Method for Improvement of Rockfill Material with Polyurethane Foam Adhesive. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	3.0	19
45	Comparative study of Y-shaped and circular floating piles in consolidating clay. Canadian Geotechnical Journal, 2016, 53, 1483-1494.	2.8	18
46	Vibration velocity of X-section cast-in-place concrete (XCC) pileâ€“raft foundation model for a ballastless track. Canadian Geotechnical Journal, 2017, 54, 1340-1345.	2.8	17
47	Performance of a Prestressed Concrete Pipe Energy Pile during Heating and Cooling. Journal of Performance of Constructed Facilities, 2017, 31, .	2.0	16
48	Study on horizontal bearing characteristics of pile foundations in coral sand. Canadian Geotechnical Journal, 2021, 58, 1928-1942.	2.8	16
49	Limit lateral resistance of XCC pile group in undrained soil. Acta Geotechnica, 2020, 15, 1673-1683.	5.7	15
50	Physical modeling of lateral spreading induced by inclined sandy foundation in the state of zero effective stress. Soil Dynamics and Earthquake Engineering, 2015, 76, 80-85.	3.8	14
51	A pâ€“y curve model for laterally loaded XCC pile in soft clay. Acta Geotechnica, 2020, 15, 3229-3242.	5.7	14
52	Mechanical properties of biocement formed by microbially induced carbonate precipitation. Acta Geotechnica, 2022, 17, 4905-4919.	5.7	12
53	A novel analytical approach for predicting the noncylindrical pile penetrationâ€induced soil displacement in undrained soil by combining use of cavity expansion and strain path methods. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 1270-1305.	3.3	11
54	Avalanche mixing and the simultaneous collapse of two media under uniaxial stress. Physical Review E, 2019, 99, 023002.	2.1	10

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55	Avalanches in Compressed Sandstone: Crackling Noise under Confinement. Crystals, 2019, 9, 582.	2.2	10
56	Geotechnical properties of 3D-printed transparent granular soil. Acta Geotechnica, 2021, 16, 1789-1800.	5.7	9
57	Noncircular Cavity Expansion in Undrained Soil: Semi-Analytical Solution. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	9
58	A simple estimation model for basal heave stability of braced excavations in anisotropic clay. Acta Geotechnica, 2022, 17, 5789-5800.	5.7	8
59	Pressure-controlled elliptical cavity expansion under anisotropic initial stress: Elastic solution and its application. Science China Technological Sciences, 2016, 59, 1100-1119.	4.0	7
60	Strength-increase mechanism and microstructural characteristics of a biotreated geomaterial. Frontiers of Structural and Civil Engineering, 2020, 14, 599-608.	2.9	7
61	Improvement of uniformity of biocemented sand column using CH3COOH-buffered one-phase-low-pH injection method. Acta Geotechnica, 2023, 18, 413-428.	5.7	7
62	Fracturing and Ultimate State of Binary Carbonate Sands. International Journal of Geomechanics, 2022, 22, .	2.7	7
63	Non-linear elastic model incorporating temperature effects. Geotechnical Research, 2018, 5, 22-30.	1.4	6
64	Experimental and Numerical Analysis of XCC Pile-Geogrid Foundation for Existing Expressway Under Traffic Load. International Journal of Civil Engineering, 2018, 16, 1371-1388.	2.0	6
65	Analysis of dynamic spherical cavity expansion in undrained modified Cam Clay soil. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1686-1703.	3.3	6
66	Non-coaxiality of soft clay generated by principal stress rotation under high-speed train loading. Acta Geotechnica, 2022, 17, 411-426.	5.7	6
67	Theoretical Solution for Cavity Expansion in Crushable Soil. International Journal of Geomechanics, 2021, 21, .	2.7	6
68	Undrained cylindrical and spherical cavity expansion in elasticâ€“viscoplastic soils. Canadian Geotechnical Journal, 2021, 58, 1543-1557.	2.8	6
69	Two-Dimensional Electroosmotic Consolidation Theory of Nonlinear Soil Voltage Distribution Characteristics. Advances in Civil Engineering, 2019, 2019, 1-10.	0.7	5
70	Model Test Study on Oil Leakage and Underground Pipelines Using Ground Penetrating Radar. Russian Journal of Nondestructive Testing, 2020, 56, 435-444.	0.9	5
71	Analytical Solution for Cavity Expansion in Rate-Dependent and Strain-Softening Clay and Its Application for CPT Tests. Journal of Engineering Mechanics - ASCE, 2021, 147, .	2.9	5
72	A Complex Variable Solution for Shallow Rectangular Tunnel in Semi-Infinite Plane. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	5

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73	Finite element modelling of helical pile installation and its influence on uplift capacity in strain softening clay. Canadian Geotechnical Journal, 2022, 59, 2050-2066.	2.8	5
74	Experimental Investigation on the Movement of Soil and Piles in Transparent Granular Soils. Geotechnical and Geological Engineering, 2017, 36, 783.	1.7	4
75	Experimental Study on the Behavior of X-Section Pile Subjected to Cyclic Axial Load in Sand. Shock and Vibration, 2017, 2017, 1-9.	0.6	4
76	In situ desaturation tests by electrolysis for liquefaction mitigation. Canadian Geotechnical Journal, 2021, 58, 1744-1756.	2.8	4
77	Threeâ€dimensional analytical continuum model for axially loaded noncircular piles in multilayered elastic soil. International Journal for Numerical and Analytical Methods in Geomechanics, 2021, 45, 2654-2681.	3.3	4
78	A semiâ€analytical solution for displacementâ€controlled elliptical cavity expansion in undrained MCC soil. International Journal for Numerical and Analytical Methods in Geomechanics, 0, , .	3.3	4
79	A simplified analysis approach for the effect of the installation of adjacent XCC pile on the existing single XCC pile in undrained clay. Acta Geotechnica, 2022, 17, 5499-5519.	5.7	4
80	A lateral soil resistance model for XCC pile in soft clay considering the effect of the geometry of cross section. Acta Geotechnica, 0, , 1.	5.7	3
81	Large Deformation Numerical Analysis of Displacement-Controlled Cylindrical Cavity Expansion under Anisotropic Initial Stress. International Journal of Geomechanics, 2020, 20, 04020163.	2.7	2
82	Testing and Modeling on Particle Breakage for Granular Soils. International Journal of Geomechanics, 2021, 21, .	2.7	2
83	Blast Liquefaction Test of Saturated Sand Foundations Disposed by a Drainage Rigid Pile. Shock and Vibration, 2022, 2022, 1-18.	0.6	2
84	Influence of stress anisotropy on the cylindrical cavity expansion in undrained elastic-perfectly plastic soil. Science China Technological Sciences, 2018, 61, 370-380.	4.0	1
85	Dynamic Response of Ballastless Track XCC Pile-Raft Foundation under Train Axle Loads. Journal of Testing and Evaluation, 2021, 49, 20180032.	0.7	1
86	Ultimate Lateral Pressure of Circular Pile in Undrained Clay Considering the Strength Reduction Induced by Pile Installation. International Journal of Geomechanics, 2022, 22, .	2.7	1
87	Enhancing splitting tensile strength of biocarbonated reactive magnesia-based sand using polypropylene fiber reinforcement. Acta Geotechnica, 2022, 17, 4761-4768.	5.7	1
88	Guest Editorial â€" Advances in Reliability, Resiliency and Sustainability of Engineering Structures in Mountainous Cities. International Journal of Structural Stability and Dynamics, 2016, 16, 1602001.	2.4	0
89	Closure to â€œTransitional Behaviors in Well-Graded Coarse Granular Soilsâ€•by Yang Xiao, M. R. Coop, Hong Liu, Hanlong Liu, and Jingshan Jiang. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, 07017033.	3.0	0
90	Effects of asphalt overlay on XCC pile-supported embankment vibration from a moving vehicle. Soil Dynamics and Earthquake Engineering, 2018, 112, 18-23.	3.8	0

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91	Closure to â€œUnconfined Compressive and Splitting Tensile Strength of Basalt Fiberâ€“Reinforced Biocemented Sandâ€• by Yang Xiao, Xiang He, T. Matthew Evans, Armin W. Stuedlein, and Hanlong Liu. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, 07020017.	3.0	0
92	Exact Solutions for Nonlocal Steady Fully Developed Debris Flows Down Inclines. Journal of Engineering Mechanics - ASCE, 2020, 146, 04020021.	2.9	0
93	Microscopic Mechanism Analysis of Calcareous Sand in Electrolysis Desaturation Using 1H L-F NMR. Canadian Geotechnical Journal, 0, , .	2.8	0