Hai-Sui Yu

List of Publications by Year
in descending order

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Version: 2024-02-01

		201674	302126
78	2,036	27	39
papers	citations	h-index	g-index

80	80	80	1200
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cavity Expansion Methods in Geomechanics. , 2000, , .		242
2	A SPH approach for large deformation analysis with hypoplastic constitutive model. Acta Geotechnica, 2015, 10, 703-717.	5.7	105
3	A simple and efficient approach to capturing bonding effect in naturally microstructured sands by discrete element method. International Journal for Numerical Methods in Engineering, 2007, 69, 1158-1193.	2.8	98
4	LOQUAT: an open-source GPU-accelerated SPH solver for geotechnical modeling. Acta Geotechnica, 2019, 14, 1269-1287.	5.7	76
5	Multiphase SPH modeling of free surface flow in porous media with variable porosity. Computers and Geotechnics, 2017, 81, 239-248.	4.7	71
6	A unified plasticity model for cyclic behaviour of clay and sand. Mechanics Research Communications, 2007, 34, 97-114.	1.8	67
7	Constitutive modeling of steel-polypropylene hybrid fiber reinforced concrete using a non-associated plasticity and its numerical implementation. Composite Structures, 2014, 111, 497-509.	5.8	64
8	Three-dimensional shakedown solutions for cohesive-frictional materials under moving surface loads. International Journal of Solids and Structures, 2012, 49, 3797-3807.	2.7	63
9	Two-Dimensional Discrete Element Theory for Rough Particles. International Journal of Geomechanics, 2009, 9, 20-33.	2.7	47
10	Influence of loading direction on the behavior of anisotropic granular materials. International Journal of Engineering Science, 2009, 47, 1284-1296.	5.0	46
11	A kinematic hardening soil model considering the principal stress rotation. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2106-2134.	3.3	45
12	Undrained Cavity-Contraction Analysis for Prediction of Soil Behavior around Tunnels. International Journal of Geomechanics, 2017, 17, .	2.7	45
13	Discrete Element Modeling of Cone Penetration Tests Incorporating Particle Shape and Crushing. International Journal of Geomechanics, 2015, 15, .	2.7	44
14	A Binary-Medium Constitutive Model for Artificially Structured Soils Based on the Disturbed State Concept and Homogenization Theory. International Journal of Geomechanics, 2017, 17, .	2.7	44
15	Interpretation of Cone Penetration Test Data in Layered Soils Using Cavity Expansion Analysis. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	42
16	Discrete element modelling of material nonâ€coaxiality in simple shear flows. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 615-635.	3.3	37
17	Plasticity Model for Hybrid Fiber-Reinforced Concrete under True Triaxial Compression. Journal of Engineering Mechanics - ASCE, 2014, 140, 393-405.	2.9	36
18	A microâ€“macro investigation of the capillary strengthening effect in wet granular materials. Acta Geotechnica, 2018, 13, 513-533.	5.7	36

#	Article	IF	Citations
19	Elasticâ€plastic solutions for expanding cavities embedded in two different cohesiveâ€frictional materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 961-977.	3.3	35
20	Shakedown analysis for design of flexible pavements under moving loads. Road Materials and Pavement Design, 2013, 14, 703-722.	4.0	34
21	Principal Stress Rotation under Bidirectional Simple Shear Loadings. KSCE Journal of Civil Engineering, 2018, 22, 1651-1660.	1.9	34
22	Kinematic variables bridging discrete and continuum granular mechanics. Mechanics Research Communications, 2006, 33, 651-666.	1.8	33
23	Three-dimensional shakedown solutions for anisotropic cohesive-frictional materials under moving surface loads. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 331-348.	3.3	33
24	Drained cavity expansion analysis with a unified state parameter model for clay and sand. Canadian Geotechnical Journal, 2018, 55, 1029-1040.	2.8	33
25	A virtual experiment technique on the elementary behaviour of granular materials with discrete element method. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 75-96.	3.3	32
26	Shakedown solutions for pavements with materials following associated and non-associated plastic flow rules. Computers and Geotechnics, 2016, 78, 218-226.	4.7	32
27	Monotonic Direct Simple Shear Tests on Sand under Multidirectional Loading. International Journal of Geomechanics, 2017, 17, .	2.7	32
28	Correlations between the stress paths of a monotonic test and a cyclic test under the same initial conditions. Soil Dynamics and Earthquake Engineering, 2017, 101, 153-156.	3.8	30
29	Non-coaxial soil model with an anisotropic yield criterion and its application to the analysis of strip footing problems. Computers and Geotechnics, 2018, 99, 80-92.	4.7	29
30	Fabric, force and strength anisotropies in granular materials: a micromechanical insight. Acta Mechanica, 2014, 225, 2345-2362.	2.1	27
31	Macro deformation and micro structure of 3D granular assemblies subjected to rotation of principal stress axes. Granular Matter, 2016, 18, 1.	2.2	27
32	Experimental study of anisotropy and non-coaxiality of granular solids. Granular Matter, 2015, 17, 189-196.	2.2	25
33	Effects of principal stress rotation on the waveâ€“seabed interactions. Acta Geotechnica, 2017, 12, 97-106.	5.7	25
34	Constitutive modelling of granular materials using a contact normal-based fabric tensor. Acta Geotechnica, 2020, 15, 1125-1151.	5.7	23
35	On a fabric evolution law incorporating the effects of b-value. Computers and Geotechnics, 2019, 105, 142-154.	4.7	22
36	A cavity expansionâ€“based solution for interpretation of CPTu data in soils under partially drained conditions. International Journal for Numerical and Analytical Methods in Geomechanics, 2020, 44, 1053-1076.	3.3	22

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37	Stressâ€“Forceâ€“Fabric Relationship for Unsaturated Granular Materials in Pendular States. Journal of Engineering Mechanics - ASCE, 2017, 143, .	2.9	21
38	Experimental investigation on the deformation characteristics of granular materials under drained rotational shear. Geomechanics and Geoengineering, 2016, 11, 47-63.	1.8	20
39	Numerical aspects of non-coaxial model implementations. Computers and Geotechnics, 2010, 37, 93-102.	4.7	16
40	DEM and experimental study of bi-directional simple shear. Granular Matter, 2019, 21, 1.	2.2	16
41	Simple shear in 3D DEM polyhedral particles and in a simplified 2D continuum model. Granular Matter, 2013, 15, 595-606.	2.2	15
42	A unified critical state model for geomaterials with an application to tunnelling. Journal of Rock Mechanics and Geotechnical Engineering, 2019, 11, 464-480.	8.1	15
43	Benchmark solutions of large-strain cavity contraction for deep tunnel convergence in geomaterials. Journal of Rock Mechanics and Geotechnical Engineering, 2020, 12, 596-607.	8.1	15
44	Shakedown for slab track substructures with stiffness variation. Geotechnical Research, 2018, 5, 31-38.	1.4	13
45	Pullout behaviour of inclined shallow plate anchors in sand. Canadian Geotechnical Journal, 2022, 59, 239-253.	2.8	13
46	Uplift Behavior of Pipes and Strip Plate Anchors in Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	12
47	Undrained cavity expansion in anisotropic soils with isotropic and frictional destructuration. Acta Geotechnica, 2022, 17, 2325-2346.	5.7	12
48	Loading and unloading of a thick-walled cylinder of critical-state soils: large strain analysis with applications. Acta Geotechnica, 2021, 16, 237-261.	5.7	11
49	Implicit and explicit procedures for the yield vertex non-coaxial theory. Computers and Geotechnics, 2011, 38, 751-755.	4.7	10
50	Numerical simulation of earthquake-induced liquefactions considering the principal stress rotation. Soil Dynamics and Earthquake Engineering, 2016, 90, 432-441.	3.8	10
51	Shakedown analysis and its application in pavement and railway engineering. Computers and Geotechnics, 2021, 138, 104281.	4.7	10
52	Interpretation of Pressuremeter Tests in Sand using Advanced Soil Model. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2002, 128, 274-278.	3.0	8
53	Plasticity solutions for ground deformation prediction of shallow tunnels in undrained clay. Tunnelling and Underground Space Technology, 2022, 120, 104277.	6.2	8
54	Theoretical Analysis of Pressure-Dependent K ₀ for Normally Consolidated Clays Using Critical State Soil Models. International Journal of Geomechanics, 2018, 18, .	2.7	7

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55	Size-dependent finite strain analysis of cavity expansion in frictional materials. International Journal of Solids and Structures, 2018, 150, 282-294.	2.7	6
56	Twoâ€dimensional elastoplastic analysis of cylindrical cavity problems in Tresca materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1612-1633.	3.3	6
57	Liquefaction and post-liquefaction of granular material under multi-directional cyclic loading. Marine Georesources and Geotechnology, 2021, 39, 1261-1272.	2.1	6
58	Noncoaxial Theory of Plasticity Incorporating Initial Soil Anisotropy. International Journal of Geomechanics, 2019, 19, .	2.7	5
59	A DEM investigation of water-bridged granular materials at the critical state. Computational Particle Mechanics, 2019, 6, 637-655.	3.0	5
60	State parameterâ€“based thermomechanical constitutive model for saturated fine-grained soils. Canadian Geotechnical Journal, 0, , 1-14.	2.8	5
61	Closed-form solutions for large strain analysis of cavity contraction in a bounded Mohr-Coulomb medium. European Journal of Environmental and Civil Engineering, 2022, 26, 4548-4575.	2.1	5
62	Effects of the principal stress rotation in numerical simulations of geotechnical laboratory cyclic tests. Computers and Geotechnics, 2019, 109, 220-228.	4.7	4
63	Modelling the simple shear behaviour of clay considering principal stress rotation. Mechanics Research Communications, 2020, 103, 103474.	1.8	4
64	On the evolution law of a contact normal-based fabric tensor for granular materials. Computers and Geotechnics, 2021, 132, 103857.	4.7	4
65	Three-Dimensional Shakedown Solutions for Cross-Anisotropic Cohesive-Frictional Materials Under Moving Loads. , 2015, , 299-313.		3
66	Closure to â€œTwo-Dimensional Discrete Element Theory for Rough Particlesâ€•by Mingjing Jiang, Serge Leroueil, Hehua Zhu, Hai-Sui Yu, and Jean-Marie Konrad. International Journal of Geomechanics, 2011, 11, 414-415.	2.7	2
67	Micromechanics of deformation non-coaxiality in granular materials. , 2013, , .		2
68	A Comparison between a Shakedown Design Approach and the Analytical Design Approach in the UK for Flexible Road Pavements. Procedia Engineering, 2016, 143, 971-978.	1.2	2
69	Undrained Soil Behavior under Bidirectional Shear. , 2016, , .		2
70	A GPU-Accelerated Three-Dimensional SPH Solver for Geotechnical Applications. Springer Series in Geomechanics and Geoengineering, 2018, , 398-401.	0.1	2
71	Shakedown of Layered Pavements under Repeated Moving Loads. , 2014, , .		1
72	Comparison of yield-vertex tangential loading and principal stress rotational loading. Computers and Geotechnics, 2019, 108, 88-94.	4.7	1

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73	Macro- and micro-mechanical investigations on liquefaction behaviour of granular material under bi-directional simple shear. Granular Matter, 2021, 23, 1.	2.2	1
74	The uniqueness of the flow liquefaction line in the submarine bi-directional simple shear condition. Marine Georesources and Geotechnology, 2023, 41, 576-587.	2.1	1
75	Finite Element Computations of Yield Vertex Non-Coaxial Models. , 2012, , .		0
76	Effect of Material Stiffness Variation on Shakedown Solutions of Soils Under Moving Loads. Sustainable Civil Infrastructures, 2019, , 73-82.	0.2	0
77	Shakedown Limits of Slab Track Substructures and Their Implications for Design. Lecture Notes in Applied and Computational Mechanics, 2021, , 211-225.	2.2	0
78	Closure to â€œUplift Behavior of Pipes and Strip Plate Anchors in Sandâ€•by Pei-Zhi Zhuang, Hong-Ya Yue, Xiu-Guang Song, He Yang, and Hai-Sui Yu. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	3.0	0