

# Sheng Zhang

## List of Publications by Year in descending order

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55  
papers

1,009  
citations

471509

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477307

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all docs

55  
docs citations

55  
times ranked

588  
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing frost susceptibility of soils using PCHeave. <i>Cold Regions Science and Technology</i> , 2013, 95, 27-38.	3.5	95
2	Importance of vapor flow in unsaturated freezing soil: a numerical study. <i>Cold Regions Science and Technology</i> , 2016, 126, 1-9.	3.5	73
3	Analysis of frost heave mechanisms in a high-speed railway embankment. <i>Canadian Geotechnical Journal</i> , 2016, 53, 520-529.	2.8	73
4	A simple thermo-elastoplastic model for geomaterials. <i>International Journal of Plasticity</i> , 2012, 34, 93-113.	8.8	58
5	Parameterization of soil freezing characteristic curve for unsaturated soils. <i>Cold Regions Science and Technology</i> , 2020, 170, 102928.	3.5	51
6	The compaction effect on the performance of a compaction-grouted soil nail in sand. <i>Acta Geotechnica</i> , 2020, 15, 2983-2995.	5.7	39
7	Particle breakage of uniformly graded carbonate sands in dry/wet condition subjected to compression/shear tests. <i>Acta Geotechnica</i> , 2020, 15, 2379-2394.	5.7	37
8	A stochastic particle breakage model for granular soils subjected to one-dimensional compression with emphasis on the evolution of coordination number. <i>Computers and Geotechnics</i> , 2019, 112, 72-80.	4.7	36
9	A coupled model for liquid water-vapor-heat migration in freezing soils. <i>Cold Regions Science and Technology</i> , 2018, 148, 22-28.	3.5	35
10	An analytical model for evaporation from unsaturated soil. <i>Computers and Geotechnics</i> , 2019, 108, 107-116.	4.7	34
11	Modelling water content redistribution during evaporation from sandy soil in the presence of water table. <i>Computers and Geotechnics</i> , 2016, 75, 210-224.	4.7	31
12	Modelling frost heave in unsaturated coarse-grained soils. <i>Acta Geotechnica</i> , 2020, 15, 3307-3320.	5.7	31
13	A Thermo-Elasto-Viscoplastic Model for Soft Sedimentary Rock. <i>Soils and Foundations</i> , 2009, 49, 583-595.	3.1	29
14	A unified thermo-elasto-viscoplastic model for soft rock. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 93, 1-12.	5.8	29
15	Generalising the Kozeny-Carman equation to frozen soils. <i>Journal of Hydrology</i> , 2021, 594, 125885.	5.4	23
16	A mathematic model for the soil freezing characteristic curve: the roles of adsorption and capillarity. <i>Cold Regions Science and Technology</i> , 2021, 181, 103178.	3.5	21
17	Thermo-elastoplastic constitutive model for unsaturated soils. <i>Acta Geotechnica</i> , 2016, 11, 1287-1302.	5.7	18
18	Evaluating the Influence of Specimen Preparation on Saturated Hydraulic Conductivity Using Nuclear Magnetic Resonance Technology. <i>Vadose Zone Journal</i> , 2019, 18, 1-7.	2.2	18

#	ARTICLE	IF	CITATIONS
19	Modification of thermo-elasto-viscoplastic model for soft rock and its application to THM analysis of heating tests. <i>Soils and Foundations</i> , 2014, 54, 176-196.	3.1	17
20	Experimental study of particle migration under cyclic loading: effects of load frequency and load magnitude. <i>Acta Geotechnica</i> , 2021, 16, 367-380.	5.7	17
21	Negative Effect of Installation on Performance of a Compaction-Grouted Soil Nail in Poorly Graded Stockton Beach Sand. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2020, 146, .	3.0	17
22	A simple particle-size distribution model for granular materials. <i>Canadian Geotechnical Journal</i> , 2018, 55, 246-257.	2.8	16
23	New Method to Evaluate Strengthen Efficiency by Dynamic Compaction. <i>International Journal of Geomechanics</i> , 2020, 20, .	2.7	16
24	An analysis of vapour transfer in unsaturated freezing soils. <i>Cold Regions Science and Technology</i> , 2020, 169, 102914.	3.5	14
25	Particle breakage of granular soils: changing critical state line and constitutive modelling. <i>Acta Geotechnica</i> , 2022, 17, 755-768.	5.7	14
26	Wave-packet behaviors of the defocusing nonlinear Schrödinger equation based on the modified physics-informed neural networks. <i>Chaos</i> , 2021, 31, 113107.	2.5	14
27	A mathematical model of tortuosity in soil considering particle arrangement. <i>Vadose Zone Journal</i> , 2020, 19, e20004.	2.2	13
28	Frost Heave in Coarse-grained Soils: Experimental Evidence and Numerical modelling. <i>Geotechnique</i> , 0, , 1-43.	4.0	13
29	Thermo-elastoplastic Model for Soft Rock Considering Effects of Structure and Overconsolidation. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 3771-3784.	5.4	12
30	A unified thermal-hardening and thermal-softening constitutive model of soils. <i>Applied Mathematical Modelling</i> , 2019, 74, 73-84.	4.2	12
31	Evolution of mechanical properties of soils subsequent to a pile jacked in natural saturated clays. <i>Ocean Engineering</i> , 2017, 136, 209-217.	4.3	11
32	Thermo-hydro-mechanical-air coupling finite element method and its application to multi-phase problems. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2014, 6, 77-98.	8.1	10
33	Long-term setup of a displacement pile in clay: An analytical framework. <i>Ocean Engineering</i> , 2020, 218, 108143.	4.3	10
34	An Investigation of the Influence of Reconsolidation Properties on the Reliquefaction Resistance of Sand by Element Tests. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2022, 148, .	3.0	9
35	A breakage matrix methodology to predict particle size evolution of calcareous sands. <i>Powder Technology</i> , 2022, 407, 117626.	4.2	8
36	On compression behavior and particle breakage of carbonate silty sands. <i>Engineering Geology</i> , 2022, 297, 106492.	6.3	7

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37	A theoretical method for determining sample mass in a sieving test. Computers and Geotechnics, 2017, 91, 12-16.	4.7	6
38	A New Strength Criterion for Frozen Soil Considering Pore Ice Content. International Journal of Geomechanics, 2022, 22, .	2.7	6
39	Physics-informed neural networks for consolidation of soils. Engineering Computations, 2022, 39, 2845-2865.	1.4	5
40	Effect of temperature on the time-dependent behavior of geomaterials. Comptes Rendus - Mecanique, 2016, 344, 603-611.	2.1	4
41	A thermo-elastoplastic model for soft rocks considering structure. Comptes Rendus - Mecanique, 2017, 345, 752-763.	2.1	4
42	Numerical Study of the Dynamic Compaction Process considering the Phenomenon of Particle Breakage. Advances in Civil Engineering, 2018, 2018, 1-10.	0.7	4
43	Pumping effect of rainfall-induced excess pore pressure on particle migration. Transportation Geotechnics, 2021, 31, 100669.	4.5	4
44	Experimental evaluation of the performance of a geotextile for a pressure-grouted soil nail. Geotextiles and Geomembranes, 2022, 50, 498-509.	4.6	4
45	A semi-analytical model for a compaction-grouted soil nail with double grout bulbs considering compaction effect in sand. Transportation Geotechnics, 2021, 31, 100670.	4.5	3
46	Experimental Study on Migration Behavior of Sandy Silt under Cyclic Load. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	3.0	3
47	New constructive model for structures soil. Geomechanics and Engineering, 2016, 11, 725-738.	0.9	2
48	A new structured subloading cam clay model. Japanese Geotechnical Society Special Publication, 2015, 1, 61-65.	0.2	1
49	Numerical Modelling of Vapour-Ice Desublimation Process in Unsaturated Freezing Soils. Environmental Science and Engineering, 2019, , 560-568.	0.2	1
50	A new criterion for vapour induced ice lens initiation in coarse-grained soils. Cold Regions Science and Technology, 2022, 199, 103575.	3.5	1
51	A frost heave model of unsaturated coarse-grained soil considering vapour transfer. E3S Web of Conferences, 2020, 195, 02017.	0.5	0
52	A Numerical Model of Vapour Transfer and Phase Change in Unsaturated Freezing Soils. Advances in Civil Engineering, 2020, 2020, 1-11.	0.7	0
53	A Semi-analytical Model for a Compaction-Grouted Soil Nail with Grout Bulb. Sustainable Civil Infrastructures, 2021, , 57-70.	0.2	0
54	Particle Breakage Observed in Both Transitional and Non-transitional Carbonate Sands. Lecture Notes in Civil Engineering, 2022, , 935-943.	0.4	0

#	ARTICLE	IF	CITATIONS
55	Constitutive Modelling of Temperature-Dependent Behaviour of Soft Rocks with Fractional-Order Flow Rule. Applied Sciences (Switzerland), 2022, 12, 3875.	2.5	0