Zhiye Zhao

List of Publications by Year
in descending order

115	3,203	126858	206029
papers	citations	33	48
		h-index	g-index

118	118	118	2100
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Information and knowledge behind data from underground rock grouting. Journal of Rock Mechanics and Geotechnical Engineering, 2021, 13, 1326-1339.	3.7	7
2	Grouting knowledge discovery based on data mining. Tunnelling and Underground Space Technology, 2020, 95, 103093.	3.0	11
3	An Analytical Investigation on the Estimation of Water Inflow into a Circular Tunnel Based On-site Data. Rock Mechanics and Rock Engineering, 2020, 53, 3835-3844.	2.6	4
4	Influence of fracture deformation on grout penetrability in fractured rock masses. Tunnelling and Underground Space Technology, 2020, 102, 103431.	3.0	13
5	Numerical Modelling of Fully Grouted Rockbolts Subjected to Shear Load. Rock Mechanics and Rock Engineering, 2020, 53, 2493-2503.	2.6	8
6	Development of a new deformation-controlled rock bolt: Numerical modelling and laboratory verification. Tunnelling and Underground Space Technology, 2020, 98, 103305.	3.0	36
7	An analytical model for shear behaviour of bolted rock joints. International Journal of Rock Mechanics and Minings Sciences, 2019, 121, 104019.	2.6	26
8	DDA based grouting prediction and linkage between fracture aperture distribution and grouting characteristics. Computers and Geotechnics, 2019, 112, 350-369.	2.3	21
9	Experimental and Numerical Study on the Interface Behaviour Between the Rock Bolt and Bond Material. Rock Mechanics and Rock Engineering, 2019, 52, 869-879.	2.6	35
10	Evaluation of equivalent hydraulic aperture (EHA) for rough rock fractures. Canadian Geotechnical Journal, 2019, 56, 1486-1501.	1.4	14
11	Effect of bolt configuration on the interface behaviour between a rock bolt and bond material: A comprehensive DDA investigation. Computers and Geotechnics, 2019, 105, 116-128.	2.3	31
12	Simulating stress wave with flat-top partition of unity based high-order discontinuous deformation analysis. Engineering Analysis With Boundary Elements, 2018, 91, 110-123.	2.0	8
13	On the shear failure of incipient rock discontinuities under CNL and CNS boundary conditions: Insights from DEM modelling. Engineering Geology, 2018, 234, 153-166.	2.9	48
14	Tensile strength of large-scale incipient rock joints: a laboratory investigation. Acta Geotechnica, 2018, 13, 869-886.	2.9	33
15	Dynamic analysis with flat-top partition of unity-based discontinuous deformation analysis. Computers and Geotechnics, 2018, 98, 35-47.	2.3	3
16	Numerical investigation of the direct tensile behaviour of laminated and transversely isotropic rocks containing incipient bedding planes with different strengths. Computers and Geotechnics, 2018, 104, 373-388.	2.3	50
17	Analytical modeling of shear behaviors of rockbolts perpendicular to joints. Construction and Building Materials, 2018, 175, 286-295.	3.2	19
18	Rock Slope Stability and Stabilization Analysis Using the Coupled DDA and FEM Method: NDDA Approach. International Journal of Geomechanics, 2018, 18, 04018044.	1.3	22

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19	Development of a Unified Rock Bolt Model in Discontinuous Deformation Analysis. Rock Mechanics and Rock Engineering, 2018, 51, 827-847.	2.6	21
20	Numerical modelling of a field soil desiccation test using a cohesive fracture model with Voronoi tessellations. Acta Geotechnica, 2018, 13, 87-102.	2.9	18
21	Effects of joints on the reinforced rock units of fully-grouted rockbolts. Tunnelling and Underground Space Technology, 2018, 71, 15-26.	3.0	20
22	A preliminary study of the economic dimension of underground rock caverns for water storage at Singapore. , 2018, , .		0
23	3D Particle-Based DEM Investigation into the Shear Behaviour of Incipient Rock Joints with Various Geometries of Rock Bridges. Rock Mechanics and Rock Engineering, 2018, 51, 3563-3584.	2.6	31
24	Local refinement of flatâ€top partition of unity based highâ€order approximation. International Journal for Numerical Methods in Engineering, 2018, 116, 465-486.	1.5	2
25	Broad-spectrum fracture toughness of an anisotropic sandstone under mixed-mode loading. Theoretical and Applied Fracture Mechanics, 2018, 96, 556-575.	2.1	18
26	DEM simulation of mortar-bolt interface behaviour subjected to shearing. Construction and Building Materials, 2018, 185, 120-137.	3.2	50
27	Geological discontinuity persistence: Implications and quantification. Engineering Geology, 2018, 241, 41-54.	2.9	80
28	A field study on pile response to blast-induced ground motion. Soil Dynamics and Earthquake Engineering, 2018, 114, 568-575.	1.9	13
29	Implementation of displacement-dependent Barton-Bandis rock joint model into discontinuous deformation analysis. Computers and Geotechnics, 2017, 86, 1-8.	2.3	24
30	Numerical investigation of the opening effect on the mechanical behaviours in rocks under uniaxial loading using hybrid continuum-discrete element method. Computers and Geotechnics, 2017, 90, 55-72.	2.3	41
31	An Analytical Model for Fully Grouted Rockbolts with Consideration of the Pre- and Post-yielding Behavior. Rock Mechanics and Rock Engineering, 2017, 50, 3019-3028.	2.6	25
32	A simplified model for predicting grout flow in fracture channels. Tunnelling and Underground Space Technology, 2017, 70, 11-18.	3.0	34
33	Modeling of Rock Joints Under Cyclic Loading Conditions Using Discontinuous Deformation Analysis. Rock Mechanics and Rock Engineering, 2017, 50, 1205-1215.	2.6	17
34	Improvement of contact calculation in spherical discontinuous deformation analysis. Science China Technological Sciences, 2017, 60, 765-771.	2.0	6
35	Pile response subjected to rock blasting induced ground vibration near soil-rock interface. Computers and Geotechnics, 2017, 82, 1-15.	2.3	37
36	Effects of Water Related Factors on Pre-grouting in Hard Rock Tunnelling. Procedia Engineering, 2016, 165, 300-307.	1.2	12

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37	Hydraulic fracturing modeling using the discontinuous deformation analysis (DDA) method. Computers and Geotechnics, 2016, 76, 12-22.	2.3	84
38	Low frequency acoustic signals associated with rock falls, thunderstorms, and wind turbulences in field environment. Applied Acoustics, 2016, 112, 131-139.	1.7	10
39	The grain effect of intact rock modelling using discrete element method with Voronoi grains. Geotechnique Letters, 2016, 6, 136-143.	0.6	27
40	Numerical Simulation of P-Wave Propagation in Rock Mass with Granular Material-Filled Fractures Using Hybrid Continuum-Discrete Element Method. Rock Mechanics and Rock Engineering, 2016, 49, 4049-4060.	2.6	8
41	Rock Cavern Stability Analysis Under Different Hydro-Geological Conditions Using the Coupled Hydro-Mechanical Model. Rock Mechanics and Rock Engineering, 2016, 49, 555-572.	2.6	13
42	Numerical modelling of laboratory soil desiccation cracking using UDEC with a mix-mode cohesive fracture model. Engineering Geology, 2016, 202, 14-23.	2.9	79
43	A numerical model of fully grouted bolts considering the tri-linear shear bond–slip model. Tunnelling and Underground Space Technology, 2016, 54, 73-80.	3.0	73
44	High velocity impact mitigation with gradient cellular solids. Composites Part B: Engineering, 2016, 85, 93-101.	5.9	25
45	An improved three-dimensional spherical DDA model for simulating rock failure. Science China Technological Sciences, 2015, 58, 1533-1541.	2.0	50
46	Back-analysis approach for the determination of hydraulic conductivity in rock caverns. Tunnelling and Underground Space Technology, 2015, 47, 233-238.	3.0	8
47	Energy absorption of graded foam subjected to blast: A theoretical approach. Materials and Design, 2015, 84, 351-358.	3.3	20
48	Design of Metal Foam Cladding Subjected to Close-Range Blast. Journal of Performance of Constructed Facilities, 2015, 29, .	1.0	13
49	Augmented Numerical Manifold Method with implementation of flat-top partition of unity. Engineering Analysis With Boundary Elements, 2015, 61, 153-171.	2.0	21
50	Determination of hydraulic conductivity of fractured rock masses: A case study for a rock cavern project in Singapore. Journal of Rock Mechanics and Geotechnical Engineering, 2015, 7, 178-184.	3.7	11
51	UDEC–AUTODYN Hybrid Modeling of a Large-Scale Underground Explosion Test. Rock Mechanics and Rock Engineering, 2015, 48, 737-747.	2.6	59
52	Fully Grouted Rock Bolts: An Analytical Investigation. Rock Mechanics and Rock Engineering, 2015, 48, 1181-1196.	2.6	54
53	Development of contact algorithm for three-dimensional numerical manifold method. International Journal for Numerical Methods in Engineering, 2014, 97, 423-453.	1.5	37
54	On the Implementation of augmented Lagrangian method in the two-dimensional discontinuous deformation Analysis. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 551-571.	1.7	23

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55	Numerical studies on rockbolts mechanism using 2D discontinuous deformation analysis. Tunnelling and Underground Space Technology, 2014, 41, 223-233.	3.0	44
56	Proof of linear independence of flat-top PU-based high-order approximation. Engineering Analysis With Boundary Elements, 2014, 44, 104-111.	2.0	14
57	Development of Rock Bolt Elements in Two-Dimensional Discontinuous Deformation Analysis. Rock Mechanics and Rock Engineering, 2014, 47, 2157-2170.	2.6	40
58	Block fracturing analysis using nodal-based discontinuous deformation analysis with the double minimization procedure. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 881-902.	1.7	30
59	Numerical study on tunnel damage subject to blast-induced shock wave in jointed rock masses. Tunnelling and Underground Space Technology, 2014, 43, 88-100.	3.0	136
60	Development of three-dimensional numerical manifold method for jointed rock slope stability analysis. International Journal of Rock Mechanics and Minings Sciences, 2013, 64, 22-35.	2.6	68
61	Coupled hydro-mechanical model for fractured rock masses using the discontinuous deformation analysis. Tunnelling and Underground Space Technology, 2013, 38, 506-516.	3.0	35
62	Stability Charts for Homogenous Soil Slopes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 2212-2218.	1.5	32
63	Bearing capacity analysis using the method of characteristics. Acta Mechanica Sinica/Lixue Xuebao, 2013, 29, 179-188.	1.5	11
64	Mitigating Ground Shocks with Cellular Solids. Journal of Engineering Mechanics - ASCE, 2013, 139, 1362-1371.	1.6	6
65	Modeling bimaterial interface cracks using the numerical manifold method. Engineering Analysis With Boundary Elements, 2013, 37, 464-474.	2.0	37
66	In-structure shock of underground structures: A revisit with experimental investigation. Engineering Structures, 2013, 56, 1620-1630.	2.6	5
67	A detailed investigation of block dynamic sliding by the discontinuous deformation analysis. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2373-2393.	1.7	49
68	MODELING BRITTLE FRACTURE WITH THE NODAL-BASED DISCONTINUOUS DEFORMATION ANALYSIS. International Journal of Computational Methods, 2013, 10, 1350040.	0.8	20
69	Investigation on strength and stability of jointed rock mass using three-dimensional numerical manifold method. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 2348-2366.	1.7	17
70	Experimental Investigation of Bedding Plane Orientation on the Rockburst Behavior of Sandstone. Rock Mechanics and Rock Engineering, 2012, 45, 311-326.	2.6	97
71	The vertex-to-vertex contact analysis in the two-dimensional discontinuous deformation analysis. Advances in Engineering Software, 2012, 45, 1-10.	1.8	46
72	Investigation of linear dependence problem of three-dimensional partition of unity-based finite element methods. Computer Methods in Applied Mechanics and Engineering, 2012, 233-236, 137-151.	3.4	24

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73	Protection Against Blast Load with Cellular Materials and Structures. International Journal of Aerospace and Lightweight Structures (IJALS), 2012, 02, 53.	0.1	6
74	Micro- and macro-fractures of coarse granite under true-triaxial unloading conditions. Mining Science and Technology, 2011, 21, 389-394.	0.3	4
75	Design of ensemble neural network using entropy theory. Advances in Engineering Software, 2011, 42, 838-845.	1.8	13
76	Determination of three dimensional hydraulic conductivities using a combined analytical/neural network model. Tunnelling and Underground Space Technology, 2011, 26, 310-319.	3.0	31
77	TUNNEL BLASTING SIMULATIONS BY THE DISCONTINUOUS DEFORMATION ANALYSIS. International Journal of Computational Methods, 2011, 08, 277-292.	0.8	34
78	Comparative study of Sarma's method and the discontinuous deformation analysis for rock slope stability analysis. Geomechanics and Geoengineering, 2011, 6, 293-302.	0.9	16
79	Effects of anisotropic permeability of fractured rock masses on underground oil storage caverns. Tunnelling and Underground Space Technology, 2010, 25, 629-637.	3.0	61
80	An alternative scheme for the corner–corner contact in the two-dimensional Discontinuous Deformation Analysis. Advances in Engineering Software, 2010, 41, 206-212.	1.8	42
81	Considerations of the discontinuous deformation analysis on wave propagation problems. International Journal for Numerical and Analytical Methods in Geomechanics, 2009, 33, 1449-1465.	1.7	70
82	Numerical investigation of crack growth in concrete subjected to compression by the generalized beam lattice model. Computational Mechanics, 2009, 43, 277-295.	2.2	24
83	A simple method to simulate shrinkage-induced cracking in cement-based composites by lattice-type modeling. Computational Mechanics, 2009, 43, 477-492.	2.2	10
84	Stress recovery procedure for discontinuous deformation analysis. Advances in Engineering Software, 2009, 40, 52-57.	1.8	12
85	Numerical simulations of rock mass damage induced by underground explosion. International Journal of Rock Mechanics and Minings Sciences, 2009, 46, 1206-1213.	2.6	87
86	Discontinuous Deformation Analysis for Parallel Hole Cut Blasting in Rock Mass. , 2009, , .		2
87	Stability of piezoelectric FGM rectangular plates subjected to non-uniformly distributed load, heat and voltage. Advances in Engineering Software, 2008, 39, 121-131.	1.8	35
88	Design of ensemble neural network using the Akaike information criterion. Engineering Applications of Artificial Intelligence, 2008, 21, 1182-1188.	4.3	38
89	Modified generalized beam lattice model associated with fracture of reinforced fiber/particle composites. Theoretical and Applied Fracture Mechanics, 2008, 50, 132-141.	2.1	14
90	Prediction model of tunnel boring machine performance by ensemble neural networks. Geomechanics and Geoengineering, 2007, 2, 123-128.	0.9	53

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91	Steel columns under fire—a neural network based strength model. Advances in Engineering Software, 2006, 37, 97-105.	1.8	28
92	Numerical study of shear behavior of intermittent rock joints with different geometrical parameters. International Journal of Rock Mechanics and Minings Sciences, 2006, 43, 802-816.	2.6	80
93	Evaluation of singular integrals in the symmetric Galerkin boundary element method. Advances in Engineering Software, 2004, 35, 781-789.	1.8	7
94	Numerical implementation of the symmetric Galerkin boundary element method in 2D elastodynamics. International Journal for Numerical Methods in Engineering, 2003, 58, 1049-1060.	1.5	5
95	Design of structural modular neural networks with genetic algorithm. Advances in Engineering Software, 2003, 34, 17-24.	1.8	52
96	An optimal neural network and concrete strength modeling. Advances in Engineering Software, 2002, 33, 117-130.	1.8	46
97	A fuzzy system for concrete bridge damage diagnosis. Computers and Structures, 2002, 80, 629-641.	2.4	46
98	Failure Criterion of Concrete under Triaxial Stresses Using Neural Networks. Computer-Aided Civil and Infrastructure Engineering, 2002, 17, 68-73.	6.3	28
99	Concrete bridge deterioration diagnosis using fuzzy inference system. Advances in Engineering Software, 2001, 32, 317-325.	1.8	35
100	Preliminary Design System for Concrete Box Girder Bridges. Journal of Computing in Civil Engineering, 2001, 15, 184-192.	2.5	5
101	Two-dimensional and three-dimensional magnification factors, Mk, for non-load-carrying fillet welds cruciform joints. Engineering Fracture Mechanics, 2000, 65, 435-453.	2.0	17
102	Design sensitivity analysis with hypersingular boundary elements. Engineering Analysis With Boundary Elements, 2000, 24, 485-490.	2.0	2
103	Analysis of mechanically fastened composite joints by boundary element methods. Composites Part B: Engineering, 2000, 31, 693-705.	5.9	18
104	Boundary stress calculation—a comparison study. Computers and Structures, 1999, 71, 77-85.	2.4	21
105	Error estimation and h adaptive boundary elements. Engineering Analysis With Boundary Elements, 1999, 23, 793-803.	2.0	15
106	Error estimation in adaptive BEM by postprocessing interpolation. Communications in Numerical Methods in Engineering, 1998, 14, 633-645.	1.3	3
107	A simple error indicator for adaptive boundary element method. Computers and Structures, 1998, 68, 433-443.	2.4	3
108	Influence of workmanship on the bonding strength of tiles to external walls. International Journal of Adhesion and Adhesives, 1997, 17, 47-53.	1.4	20

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109	INTERELEMENT STRESS EVALUATION BY BOUNDARY ELEMENTS. International Journal for Numerical Methods in Engineering, 1996, 39, 2399-2415.	1.5	10
110	On the calculation of boundary stresses in boundary elements. Engineering Analysis With Boundary Elements, 1995, 16, 317-322.	2.0	7
111	Stress and stress gradient evaluation â€" a BEM approach. Advances in Engineering Software, 1994, 19, 45-52.	1.8	2
112	Shape design sensitivity analysis of kinematical boundaries. Structural Optimization, 1993, 5, 190-196.	0.7	0
113	Direct Continuum Approach to Threeâ€Dimensional Sensitivity Analysis. Journal of Engineering Mechanics - ASCE, 1993, 119, 2143-2156.	1.6	0
114	A numerical study on the elements of shape optimum design. Engineering Analysis With Boundary Elements, 1992, 9, 339-349.	2.0	1
115	An alternative approach to shape design sensitivity analysis. International Journal for Numerical Methods in Engineering, 1992, 35, 1071-1086.	1.5	7