

Lian-heng Zhao

List of Publications by Year in descending order

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107
papers

1,862
citations

236912

25
h-index

377849

34
g-index

108
all docs

108
docs citations

108
times ranked

1136
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of permanent displacements of near-fault seismic slopes by a general sliding block model. <i>Landslides</i> , 2022, 19, 187-197.	5.4	17
2	Three-dimensional upper-bound limit analysis of ultimate pullout capacity of anchor plates using variation method. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2022, 46, 1356-1379.	3.3	5
3	Upper-Bound Limit Analysis of Rock Slope Stability with Tensile Strength Cutoff Based on the Optimization Strategy of Dividing the Tension Zone and Shear Zone. <i>International Journal of Geomechanics</i> , 2022, 22, .	2.7	6
4	Back analysis of shear strength parameters for progressive landslides: case study of the Caifengyan landslide, China. <i>Bulletin of Engineering Geology and the Environment</i> , 2022, 81, 1.	3.5	3
5	Limit state analysis of stepped sliding of jointed rock slope based on tensile-shear composite failure mode of rock bridges. <i>Bulletin of Engineering Geology and the Environment</i> , 2022, 81, 1.	3.5	7
6	Numerical analysis of debris flows along the Sichuan-Tibet railway based on an improved 3D sphere DDA model and UAV-based photogrammetry. <i>Engineering Geology</i> , 2022, 305, 106722.	6.3	4
7	Regional-scale modeling of rainfall-induced landslides under random rainfall patterns. <i>Environmental Modelling and Software</i> , 2022, 155, 105454.	4.5	9
8	Numerical investigation of the failure mechanisms of soil-rock mixture slopes by material point method. <i>Computers and Geotechnics</i> , 2022, 150, 104898.	4.7	14
9	Stability analysis of slopes reinforced with anchor cables and optimal design of anchor cable parameters. <i>European Journal of Environmental and Civil Engineering</i> , 2021, 25, 2425-2440.	2.1	23
10	Statistical analysis and comparative study of multi-scale 2D and 3D shape features for unbound granular geomaterials. <i>Transportation Geotechnics</i> , 2021, 26, 100377.	4.5	15
11	Back-analysis of Donghekou landslide using improved DDA considering joint roughness degradation. <i>Landslides</i> , 2021, 18, 1925-1935.	5.4	25
12	Micromechanical study on hard rock strainburst using the discrete element method. <i>Tunnelling and Underground Space Technology</i> , 2021, 109, 103793.	6.2	7
13	Study on the ultimate bearing capacity of a strip footing influenced by an irregular underlying cavity in karst areas. <i>Soils and Foundations</i> , 2021, 61, 259-270.	3.1	3
14	Stability Analysis of Deep Rectangular Tunnels Using Adaptive Finite Element Limit Analysis with Hoek-Brown Failure Criterion. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 10931.	3.0	2
15	Variation Analysis of Uplift Bearing Characteristics of Strip Anchor Plate in Nonhomogeneous Materials. <i>International Journal of Geomechanics</i> , 2021, 21, .	2.7	7
16	Quantifying the effects of elongation and flatness on the shear behavior of realistic 3D rock aggregates based on DEM modeling. <i>Advanced Powder Technology</i> , 2021, 32, 1318-1332.	4.1	15
17	Reliability parameter back analysis of bedding rock slope with multi-layer slide surfaces. <i>Bulletin of Engineering Geology and the Environment</i> , 2021, 80, 7227-7239.	3.5	6
18	Influence analysis of irregular bedrock surface on failure characteristics of bedrock and overburden layer slope by material point method. <i>Arabian Journal of Geosciences</i> , 2021, 14, 1.	1.3	1

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19	DEM simulation of the shear behaviour of breakable granular materials with various angularities. <i>Advanced Powder Technology</i> , 2021, 32, 4058-4069.	4.1	15
20	Reliability back analysis of a 3D wedge slope based on the nonlinear Barton-Bandis failure criterion. <i>Engineering Failure Analysis</i> , 2021, 128, 105601.	4.0	9
21	Upper-bound limit analysis of passive failure of a 3D shallow tunnel face under the bidirectional inclined ground surfaces. <i>Computers and Geotechnics</i> , 2020, 118, 103310.	4.7	11
22	Reliability back analysis of landslide shear strength parameters based on a general nonlinear failure criterion. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 126, 104189.	5.8	23
23	An analysis of the effects of the size ratio and fines content on the shear behaviors of binary mixtures using DEM. <i>Computers and Geotechnics</i> , 2020, 118, 103353.	4.7	31
24	3D shape quantification and random packing simulation of rock aggregates using photogrammetry-based reconstruction and discrete element method. <i>Construction and Building Materials</i> , 2020, 262, 119986.	7.2	39
25	Modeling the progressive entrainment of bed sediment by viscous debris flows using the three-dimensional SC-HBP-SPH method. <i>Water Research</i> , 2020, 182, 116031.	11.3	27
26	Comparative study of material point method and upper bound limit analysis in slope stability analysis. <i>Transportation Safety and Environment</i> , 2020, 2, 44-57.	2.1	3
27	Barton-Bandis criterion-based system reliability analysis of rock slopes. <i>Journal of Central South University</i> , 2020, 27, 2123-2133.	3.0	6
28	Rock slope reliability analysis using Barton-Bandis failure criterion with modified pseudo-dynamic approach. <i>Soil Dynamics and Earthquake Engineering</i> , 2020, 139, 106310.	3.8	14
29	Active Stability Analysis of 3D Shallow Tunnel Face with Longitudinally Inclined Ground Surface Based on Nonlinear Mohr-Coulomb Failure Criterion. <i>International Journal of Geomechanics</i> , 2020, 20, 04020198.	2.7	4
30	Meso-scale study on compaction characteristics of asphalt mixtures in Superpave gyratory compaction using SmartRock sensors. <i>Construction and Building Materials</i> , 2020, 262, 120874.	7.2	33
31	Investigation on seismic response of a three-stage soil slope supported by anchor frame structure. <i>Journal of Central South University</i> , 2020, 27, 1290-1305.	3.0	18
32	Spatially distributed landslide triggering analyses accounting for coupled infiltration and volume change. <i>Landslides</i> , 2020, 17, 2811-2824.	5.4	12
33	A digitalized 2D particle database for statistical shape analysis and discrete modeling of rock aggregate. <i>Construction and Building Materials</i> , 2020, 247, 117906.	7.2	30
34	System reliability analysis of seismic pseudo-static stability of rock wedge based on nonlinear Barton-Bandis criterion. <i>Journal of Central South University</i> , 2020, 27, 3450-3463.	3.0	13
35	A method for seismic stability analysis of jointed rock slopes using Barton-Bandis failure criterion. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 136, 104487.	5.8	15
36	Stability Analysis of Fractured Rock Slopes with Vertical Cracks Subjected to the Hydraulic Effect Based on the Hoek-Brown Failure Criterion. <i>Lecture Notes in Civil Engineering</i> , 2020, , 229-250.	0.4	0

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37	Water Inflow Prediction and Grouting Design for Tunnel considering Nonlinear Hydraulic Conductivity. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 4132-4140.	1.9	15
38	Limit variation analysis of shallow rectangular tunnels collapsing with double-layer rock mass based on a three-dimensional failure mechanism. <i>Journal of Central South University</i> , 2019, 26, 1794-1806.	3.0	5
39	Influence of non-dimensional strength parameters on the seismic stability of cracked slopes. <i>Journal of Mountain Science</i> , 2019, 16, 153-167.	2.0	12
40	New insights into the effect of interparticle friction on the critical state friction angle of granular materials. <i>Computers and Geotechnics</i> , 2019, 113, 103105.	4.7	30
41	Characteristics of failure area and failure mechanism of a bedding rockslide in Libo County, Guizhou, China. <i>Landslides</i> , 2019, 16, 1367-1374.	5.4	35
42	Study on roof collapse of deep circular cavities in jointed rock masses using adaptive finite element limit analysis. <i>Computers and Geotechnics</i> , 2019, 111, 42-55.	4.7	41
43	Stability Analysis of a Layered Slope with Failure Mechanism of a Composite Slip Surface. <i>International Journal of Geomechanics</i> , 2019, 19, .	2.7	11
44	Fourier-shape-based reconstruction of rock joint profile with realistic unevenness and waviness features. <i>Journal of Central South University</i> , 2019, 26, 3103-3113.	3.0	11
45	Dimensionless Parameter Diagrams for the Active and Passive Stability of a Shallow 3D Tunnel Face. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 866-878.	1.9	11
46	Analytical solution for the limiting drainage of a mountain tunnel based on area-well theory. <i>Tunnelling and Underground Space Technology</i> , 2019, 84, 22-30.	6.2	19
47	Upper Bound Analysis of the Effect of Footing Roughness on $N_{\bar{1}^3}$ and the Failure Mechanism of a Strip Footing. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 2019, 43, 659-666.	1.9	0
48	Distinct Element Modelling of a Landslide Triggered by the 5.12 Wenchuan Earthquake: A Case Study. <i>Geotechnical and Geological Engineering</i> , 2018, 36, 2533-2551.	1.7	11
49	Variational analysis of the ultimate pullout capacity of shallow circular anchor plates in rock foundations based on the Hoek-Brown failure criterion. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 106, 190-197.	5.8	13
50	Upper bound analysis of ultimate pullout capacity of shallow 3-D circular plate anchors based on nonlinear Mohr-Coulomb failure criterion. <i>Journal of Central South University</i> , 2018, 25, 2272-2288.	3.0	12
51	Reply to the discussion by Ukritchon and Keawsawasvong on "Seismic displacement along a log-spiral failure surface with crack using rock Hoek-Brown failure criterion". <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 115, 951-952.	3.8	0
52	Water Inflow Calculating Method and Grouting Parameters Analysis after Considering the Velocity of Groundwater. , 2018, , .		0
53	Variation analysis of ultimate pullout capacity of shallow horizontal strip anchor plate with 2-layer overlying soil based on nonlinear M-C failure criterion. <i>Journal of Central South University</i> , 2018, 25, 2802-2818.	3.0	9
54	Quantitative characterization of joint roughness based on semivariogram parameters. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 109, 1-8.	5.8	32

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55	Stability analysis of irregular cavities using upper bound finite element limit analysis method. <i>Computers and Geotechnics</i> , 2018, 103, 1-12.	4.7	15
56	An adaptive remeshing procedure for discontinuous finite element limit analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 116, 287-307.	2.8	30
57	Development mechanism for the landslide at Xinlu Village, Chongqing, China. <i>Landslides</i> , 2018, 15, 2075-2081.	5.4	20
58	Reply to the discussion by Utili and Abd on "Seismic displacement along a log-spiral failure surface with crack using rock Hoek-Brown failure criterion". <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 108, 201-202.	3.8	2
59	A closed-form solution for seismic passive earth pressure behind a retaining wall supporting cohesive-frictional backfill. <i>Acta Geotechnica</i> , 2017, 12, 453-461.	5.7	21
60	Three-dimensional stability analysis of a longitudinally inclined shallow tunnel face. <i>Computers and Geotechnics</i> , 2017, 87, 32-48.	4.7	28
61	Seismic displacement along a log-spiral failure surface with crack using rock Hoek-Brown failure criterion. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 99, 74-85.	3.8	35
62	Limit equilibrium analysis for rock slope stability using basic Hoek-Brown strength criterion. <i>Journal of Central South University</i> , 2017, 24, 2154-2163.	3.0	13
63	Limit equilibrium method (LEM) of slope stability and calculation of comprehensive factor of safety with double strength-reduction technique. <i>Journal of Mountain Science</i> , 2017, 14, 2311-2324.	2.0	23
64	Reconstruction of granular railway ballast based on inverse discrete Fourier transform method. <i>Granular Matter</i> , 2017, 19, 1.	2.2	19
65	Effect of the vertical earthquake component on permanent seismic displacement of soil slopes based on the nonlinear Mohr-Coulomb failure criterion. <i>Soils and Foundations</i> , 2017, 57, 237-251.	3.1	45
66	Upper-Bound Analysis of N^3 and Failure Mechanisms of Multiple Equally Spaced Strip Footings. <i>International Journal of Geomechanics</i> , 2017, 17, .	2.7	8
67	Water inflow forecasting for tunnel considering nonlinear variation of permeability coefficient. <i>Journal of Central South University</i> , 2017, 24, 1612-1618.	3.0	4
68	Combined influence of nonlinearity and dilation on slope stability evaluated by upper-bound limit analysis. <i>Journal of Central South University</i> , 2017, 24, 1602-1611.	3.0	15
69	Stability design charts for homogeneous slopes under typical conditions based on the double shear strength reduction technique. <i>Arabian Journal of Geosciences</i> , 2017, 10, 1.	1.3	11
70	Rock mass collapse mechanism of concealed karst cave beneath deep tunnel. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 91, 133-138.	5.8	66
71	Response of gravity retaining wall with anchoring frame beam supporting a steep rock slope subjected to earthquake loading. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 92, 633-649.	3.8	33
72	Limit equilibrium analysis for stability of soil nailed slope and optimum design of soil nailing parameters. <i>Journal of Central South University</i> , 2017, 24, 2496-2503.	3.0	13

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73	System reliability analysis of plane slide rock slope using Barton-Bandis failure criterion. International Journal of Rock Mechanics and Minings Sciences, 2016, 88, 1-11.	5.8	30
74	Limit equilibrium method for slope stability based on assumed stress on slip surface. Journal of Central South University, 2016, 23, 2972-2983.	3.0	9
75	Stability analysis of seismic slopes with cracks. Computers and Geotechnics, 2016, 77, 77-90.	4.7	53
76	Limit equilibrium stability analysis of slopes under external loads. Journal of Central South University, 2016, 23, 2382-2396.	3.0	3
77	Limit equilibrium method for rock slope stability analysis by using the Generalized Hoekâ€“Brown criterion. International Journal of Rock Mechanics and Minings Sciences, 2016, 89, 176-184.	5.8	47
78	Ultimate bearing capacity of a strip footing placed on sand with a rigid basement. Computers and Geotechnics, 2016, 77, 115-119.	4.7	24
79	Theoretical solutions for a circular opening in an elasticâ€“brittleâ€“plastic rock mass incorporating the out-of-plane stress and seepage force. KSCE Journal of Civil Engineering, 2016, 20, 687-701.	1.9	39
80	Upper-bound finite element analysis of stability of tunnel face subjected to surcharge loading in cohesive-frictional soil. KSCE Journal of Civil Engineering, 2016, 20, 2270-2279.	1.9	13
81	Reliability back analysis of shear strength parameters of landslide with three-dimensional upper bound limit analysis theory. Landslides, 2016, 13, 711-724.	5.4	40
82	Limit equilibrium slope stability analysis using the nonlinear strength failure criterion. Canadian Geotechnical Journal, 2015, 52, 563-576.	2.8	48
83	Seismic active earth pressure of cohesive-frictional soil on retaining wall based on a slice analysis method. Soil Dynamics and Earthquake Engineering, 2015, 70, 133-147.	3.8	31
84	Stability charts of slopes under typical conditions developed by upper bound limit analysis. Computers and Geotechnics, 2015, 65, 233-240.	4.7	22
85	Stability analysis of unlined elliptical tunnel using finite element upper-bound method with rigid translatory moving elements. Tunnelling and Underground Space Technology, 2015, 50, 13-22.	6.2	58
86	Coupled hydro-mechanical response of saturated asphalt pavement under moving traffic load. International Journal of Pavement Engineering, 2015, 16, 125-143.	4.4	38
87	Effects of shear strength reduction strategies on safety factor of homogeneous slope based on a general nonlinear failure criterion. Computers and Geotechnics, 2015, 63, 215-228.	4.7	51
88	Effect of hydraulic distribution on the stability of a plane slide rock slope under the nonlinear Barton-Bandis failure criterion. Geomechanics and Engineering, 2015, 8, 391-414.	0.9	15
89	Study on Anti-Slide Stability of Rock Slope along River. Journal of Highway and Transportation Research and Development (English Edition), 2014, 8, 23-30.	0.1	1
90	Limiting drainage criterion for groundwater of mountain tunnel. Journal of Central South University, 2014, 21, 4660-4668.	3.0	13

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91	Laboratory study on the adhesive properties of ice to the asphalt pavement of highway. Cold Regions Science and Technology, 2014, 104-105, 7-13.	3.5	43
92	Solution of pavement temperature field in "Environment-Surface" system through Green's function. Journal of Central South University, 2014, 21, 2108-2116.	3.0	10
93	The influence of horizontal confinement on the bearing capacity factor N_1^3 of smooth strip footing. Computers and Geotechnics, 2014, 61, 127-131.	4.7	12
94	Construction of improved rigid blocks failure mechanism for ultimate bearing capacity calculation based on slip-line field theory. Journal of Central South University, 2013, 20, 1047-1057.	3.0	13
95	Discussion on Superposition Empirical Formula of Ultimate Bearing Capacity Based on the Upper Bound Limit Analysis Theory. , 2013, , .		0
96	Upper Bound Limit Analysis-Based Determination of the Influence of a Non-Associated Flow Rule on the Stability of Shallow Tunnels. Journal of Highway and Transportation Research and Development (English Edition), 2013, 7, 62-68.	0.1	0
97	Boussinesq equation-based model for flow in drainage layer of highway. Journal of Central South University, 2012, 19, 2365-2372.	3.0	5
98	Upper bound solution of supporting pressure for a shallow square tunnel based on the Hoek-Brown failure criterion. Journal of Zhejiang University: Science A, 2012, 13, 284-292.	2.4	7
99	Joined Influences of Nonlinearity and Dilation on the Ultimate Pullout Capacity of Horizontal Shallow Plate Anchors by Energy Dissipation Method. International Journal of Geomechanics, 2011, 11, 195-201.	2.7	21
100	Stability of Subgrade Slope along River Subjected to Water Level Fluctuations and Stream Erosion. Journal of Highway and Transportation Research and Development (English Edition), 2011, 5, 1-9.	0.1	4
101	Upper Bound Stability Analysis for Soil Slope with Non-Associated Flow Rule. , 2011, , .		0
102	Study on Transfer Behavior of Negative Friction of Single Pile in Two-Layer Soil. , 2010, , .		0
103	Method of Design for Improving the Drainage Layer of Asphalt Pavement. , 2010, , .		0
104	Engineering behaviors of reinforced gabion retaining wall based on laboratory test. Central South University, 2010, 17, 1351-1356.	0.5	20
105	Upper bound analysis of slope stability with nonlinear failure criterion based on strength reduction technique. Central South University, 2010, 17, 836-844.	0.5	33
106	Analytical solutions for stresses and displacements of cylindrical cavity expansion based on extended SMP criterion. , 2010, , 337-346.		0
107	Influences of nonassociated flow rules on seismic bearing capacity factors of strip footing on soil slope by energy dissipation method. Central South University, 2007, 14, 842-847.	0.5	19