

# Hong-Yuan Liu

## List of Publications by Year in descending order

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97  
papers

3,342  
citations

117453

34  
h-index

155451

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100  
docs citations

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times ranked

2202  
citing authors

#	ARTICLE	IF	CITATIONS
1	Failure mechanism and strengthening effect of shield tunnel lining reinforced by steel plates with corbels. <i>European Journal of Environmental and Civil Engineering</i> , 2022, 26, 1603-1621.	1.0	7
2	Hybrid finiteâ€“discrete element modelling of rock fracture process in intact and notched Brazilian disc tests. <i>European Journal of Environmental and Civil Engineering</i> , 2022, 26, 5843-5876.	1.0	5
3	Hybrid Finite-Discrete Element Modelling of Various Rock Fracture Modes during Three Conventional Bending Tests. <i>Sustainability</i> , 2022, 14, 592.	1.6	5
4	Study on fracture behavior of molars based on threeâ€“dimensional highâ€“precision computerized tomography scanning and numerical simulation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2022, 38, e3561.	1.0	1
5	The State of the Art and New Insight into Combined Finiteâ€“Discrete Element Modelling of the Entire Rock Slope Failure Process. <i>Sustainability</i> , 2022, 14, 4896.	1.6	5
6	An overview on advances in computational fracture mechanics of rock. <i>Geosystem Engineering</i> , 2021, 24, 206-229.	0.7	47
7	Modelling of dynamic rock fracture process using the finite-discrete element method with a novel and efficient contact activation scheme. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 138, 104645.	2.6	33
8	Hybrid finiteâ€“discrete element simulator based on GPGPUâ€“parallelized computation for modelling crack initiation and coalescence in sandy mudstone with prefabricated cross-flaws under uniaxial compression. <i>Engineering Fracture Mechanics</i> , 2021, 247, 107658.	2.0	19
9	Experimental study on the effect of granular backfill with various gradations on the mechanical behavior of rock. <i>International Journal of Mining Science and Technology</i> , 2021, 31, 889-899.	4.6	17
10	FDEM Modelling of Rock Fracture Process during Three-Point Bending Test under Quasistatic and Dynamic Loading Conditions. <i>Shock and Vibration</i> , 2021, 2021, 1-21.	0.3	3
11	Combined finite-discrete element modellings of rockbursts in tunnelling under high in-situ stresses. <i>Computers and Geotechnics</i> , 2021, 137, 104261.	2.3	20
12	3D nonlinear finite element modelling of mechanical behavior of a new wall-beam-strut joint for prefabricated underground construction and validation against experimental testing. <i>Structures</i> , 2021, 33, 3202-3221.	1.7	10
13	Experimental and numerical studies on failure behaviours of sandstones subject to freeze-thaw cycles. <i>Transportation Geotechnics</i> , 2021, 31, 100655.	2.0	26
14	Development of excavation damaged zones around a rectangular roadway under mining-induced pressure. <i>Tunnelling and Underground Space Technology</i> , 2021, 118, 104163.	3.0	14
15	Combined Finite-Discrete Element Modelling of Dynamic Rock Fracture and Fragmentation during Mining Production Process by Blast. <i>Shock and Vibration</i> , 2021, 2021, 1-18.	0.3	4
16	Experimental Investigation of the Mechanical Behaviour of Wallâ€“Beamâ€“Strut Joints for Prefabricated Underground Construction. <i>International Journal of Concrete Structures and Materials</i> , 2021, 15, .	1.4	7
17	Development and application of a three-dimensional GPGPU-parallelized FDEM for modelling rock fragmentation by blast. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 861, 032027.	0.2	0
18	Development of a 3-D Dynamic Fracture Process Analysis code to Simulate Intermediate Loading Rate. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 861, 042075.	0.2	1

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19	A case study on key techniques for long-distance sea-crossing shield tunneling. <i>Marine Georesources and Geotechnology</i> , 2020, 38, 786-803.	1.2	8
20	GPGPU-parallelized 3D combined finite–discrete element modelling of rock fracture with adaptive contact activation approach. <i>Computational Particle Mechanics</i> , 2020, 7, 849-867.	1.5	35
21	Development of a 3D Hybrid Finite-Discrete Element Simulator Based on GPGPU-Parallelized Computation for Modelling Rock Fracturing Under Quasi-Static and Dynamic Loading Conditions. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 1079-1112.	2.6	98
22	Two-stage cultivation strategy for simultaneous increases in growth rate and lipid content of microalgae: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109621.	8.2	122
23	Experimental and Numerical Studies on the Mechanical Performance of a Wall-beam-strut Joint with Mechanical Couplers for Prefabricated Underground Construction. <i>International Journal of Concrete Structures and Materials</i> , 2020, 14, .	1.4	2
24	Characteristics of stratum movement induced by downward longwall mining activities in middle-distance multi-seam. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 136, 104517.	2.6	36
25	Deformation Characterisation and Distress Diagnosis of a Metro Shield Tunnel by Adjacent Constructions. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-17.	0.4	4
26	Three-Dimensional Combined Finite-Discrete Element Modeling of Shear Fracture Process in Direct Shearing of Rough Concrete–Rock Joints. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8033.	1.3	12
27	Hybrid Finite-Discrete Element Modelling of Excavation Damaged Zone Formation Process Induced by Blasts in a Deep Tunnel. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-27.	0.4	6
28	Development of thermal and deformation stability of Qinghai-Tibet Highway under sunny-shady slope effect in southern Tanglha region in recent decade. <i>Soils and Foundations</i> , 2020, 60, 342-355.	1.3	17
29	FDEM simulation of rock damage evolution induced by contour blasting in the bench of tunnel at deep depth. <i>Tunnelling and Underground Space Technology</i> , 2020, 103, 103495.	3.0	41
30	Large deformation mechanism and concrete-filled steel tubular support control technology of soft rock roadway-A case study. <i>Engineering Failure Analysis</i> , 2020, 116, 104721.	1.8	36
31	GPGPU-parallelised hybrid finite-discrete element modelling of rock chipping and fragmentation process in mechanical cutting. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2020, 12, 310-325.	3.7	40
32	Combined finite-discrete element modelling of rock fracture and fragmentation induced by contour blasting during tunnelling with high horizontal in-situ stress. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 127, 104214.	2.6	51
33	Effect of Web Openings on Flexural Behaviour of Underground Metro Station RC Beams under Static and Cyclic Loading. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-15.	0.4	0
34	Hybrid finite-discrete element modelling of rock fracture during conventional compressive and tensile strength tests under quasi-static and dynamic loading conditions. <i>Latin American Journal of Solids and Structures</i> , 2020, 17, .	0.6	1
35	An Overview on Performance of Steel Slag in Highway Industry. <i>Journal of Islam in Asia</i> , 2020, 67, 1-10.	0.2	1
36	Three-dimensional finite element modelling of excavation-induced tunnel wall movement and damage: a case study. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2019, 44, 1.	0.8	4

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37	Development of a GPGPU-parallelized hybrid finite-discrete element method for modeling rock fracture. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019, 43, 1797-1824.	1.7	70
38	Critical Conditions for Coal Wellbore Failure During Primary Coalbed Methane Recovery: A Case Study from the San Juan Basin. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 4083-4099.	2.6	5
39	A wavelet transform method for studying the energy distribution characteristics of microseismicities associated rock failure. <i>Journal of Traffic and Transportation Engineering (English Edition)</i> , 2019, 6, 631-646.	2.0	6
40	Experimental and Theoretical Studies on Effect of Height-to-Diameter Ratios on Failure Forms and Mechanical Characteristics of Foamed Concrete. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	1.3	11
41	Application of peridynamics to dynamic fracture process analysis of rock-like materials. , 2019, , 685-690.		0
42	Numerical simulation of the rock cutting. , 2019, , 677-682.		0
43	Stress-Strain Characteristics of Foamed Concrete Subjected to Large Deformation under Uniaxial and Triaxial Compressive Loading. <i>Journal of Materials in Civil Engineering</i> , 2018, 30, .	1.3	30
44	A unified model for frost heave pressure in the rock with a penny-shaped fracture during freezing. <i>Cold Regions Science and Technology</i> , 2018, 153, 1-9.	1.6	58
45	3D numerical study on fracture process of concrete with different ITZ properties using X-ray computerized tomography. <i>International Journal of Solids and Structures</i> , 2018, 147, 204-222.	1.3	66
46	Microseismic Monitoring and 3D Finite Element Analysis of the Right Bank Slope, Dagangshan Hydropower Station, during Reservoir Impounding. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 1901-1917.	2.6	28
47	A combined supporting system based on foamed concrete and U-shaped steel for underground coal mine roadways undergoing large deformations. <i>Tunnelling and Underground Space Technology</i> , 2017, 68, 196-210.	3.0	86
48	A zoning model for coal mining - induced strata movement based on microseismic monitoring. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 94, 123-138.	2.6	141
49	A Case Study on the Strata Movement Mechanism and Surface Deformation Regulation in Chengchao Underground Iron Mine. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 1011-1032.	2.6	30
50	Scale effect in macroscopic permeability of jointed rock mass using a coupled stress-damage-flow method. <i>Engineering Geology</i> , 2017, 228, 121-136.	2.9	47
51	Brittle fracture of rock under combined tensile and compressive loading conditions. <i>Canadian Geotechnical Journal</i> , 2017, 54, 88-101.	1.4	25
52	Hybrid finite-discrete element modelling of dynamic fracture and resultant fragment casting and muck-piling by rock blast. <i>Computers and Geotechnics</i> , 2017, 81, 322-345.	2.3	107
53	Implementation of a Time-Domain Random-Walk Method into a Discrete Element Method to Simulate Nuclide Transport in Fractured Rock Masses. <i>Geofluids</i> , 2017, 2017, 1-13.	0.3	5
54	HYBRID FINITE-DISCRETE ELEMENT MODELLING OF BLAST-INDUCED EXCAVATION DAMAGED ZONE IN THE TOP-HEADING OF DEEP TUNNELS. <i>Civil Engineering Journal</i> , 2017, 26, 22-33.	0.1	2

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55	HYBRID CONTINUUM-DISCONTINUUM MODELLING OF ROCK FRACTURE PROCESS IN BRAZILIAN TENSILE STRENGTH TEST. <i>Civil Engineering Journal</i> , 2017, 26, 237-249.	0.1	2
56	Hybrid finite-discrete element modelling of asperity degradation and gouge grinding during direct shearing of rough rock joints. <i>International Journal of Coal Science and Technology</i> , 2016, 3, 295-310.	2.7	21
57	Numerical model for the cracking behavior of heterogeneous brittle solids subjected to thermal shock. <i>International Journal of Solids and Structures</i> , 2016, 80, 520-531.	1.3	122
58	Study on Optimal Grouting Timing for Controlling Uplift Deformation of a Super High Arch Dam. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 115-142.	2.6	28
59	Performance of Modified Asphalt Binder with Tire Rubber Powder. <i>Jurnal Teknologi (Sciences and Technology)</i> , 2016, 10, 1-10.	0.3	10
60	A dynamic damage constitutive model for a rock mass with persistent joints. <i>International Journal of Rock Mechanics and Mining Sciences</i> , 2015, 75, 132-139.	2.6	69
61	Hybrid finite-discrete element modeling of geomaterials fracture and fragment muck-piling. <i>International Journal of Geotechnical Engineering</i> , 2015, 9, 115-131.	1.1	49
62	A Mesostructure-based Damage Model for Thermal Cracking Analysis and Application in Granite at Elevated Temperatures. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 2263-2282.	2.6	67
63	Effect of the impounding process on the overall stability of a high arch dam: a case study of the Xiluodu dam, China. <i>Arabian Journal of Geosciences</i> , 2015, 8, 9023-9041.	0.6	18
64	Experimental study on failure behaviour of deep tunnels under high in-situ stresses. <i>Tunnelling and Underground Space Technology</i> , 2015, 46, 28-45.	3.0	125
65	Experimental Study on Cracking, Reinforcement, and Overall Stability of the Xiaowan Super-High Arch Dam. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 819-841.	2.6	66
66	Effects of Outlets on Cracking Risk and Integral Stability of Super-High Arch Dams. <i>Scientific World Journal</i> , 2014, 2014, 1-19.	0.8	13
67	Rheological Characteristics of Weak Rock Mass and Effects on the Long-Term Stability of Slopes. <i>Rock Mechanics and Rock Engineering</i> , 2014, 47, 2253-2263.	2.6	36
68	Failure Process and Support Method of Roadways Excavated in Inclined Rockmass Strata. <i>Civil Engineering and Architecture</i> , 2014, 2, 304-312.	0.2	2
69	Reinforcement design and stability analysis for large-span tailrace bifurcated tunnels with irregular geometry. <i>Tunnelling and Underground Space Technology</i> , 2013, 38, 189-204.	3.0	46
70	Rock failure progressive process and resultant fragment muck-piling using a hybrid finite-discrete element method. , 2013, , 373-378.		0
71	Characterisation of rock aggregate breakage properties using realistic texture-based modelling. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 1280-1302.	1.7	22
72	Numerical simulation of the rock fragmentation process induced by two drill bits subjected to static and dynamic (impact) loading. <i>Rock Mechanics and Rock Engineering</i> , 2011, 44, 317-332.	2.6	82

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73	Stress–damage–flow coupling model and its application to pressure relief coal bed methane in deep coal seam. <i>International Journal of Coal Geology</i> , 2011, 86, 357-366.	1.9	97
74	Effects of tunnelling on existing support systems of perpendicularly crossing tunnels. <i>Computers and Geotechnics</i> , 2009, 36, 880-894.	2.3	77
75	Full 3D modelling for effects of tunnelling on existing support systems in the Sydney region. <i>Tunnelling and Underground Space Technology</i> , 2008, 23, 399-420.	3.0	74
76	Numerical Studies on Bit-Rock Fragmentation Mechanisms. <i>International Journal of Geomechanics</i> , 2008, 8, 45-67.	1.3	59
77	Effects of Tunnelling on Existing Support Systems of Intersecting Tunnels in the Sydney Region. , 2008, , .		1
78	Chapter 16 Numerical Investigation of Particle Breakage as Applied to Mechanical Crushing. <i>Handbook of Powder Technology</i> , 2007, 12, 661-739.	0.1	2
79	Numerical modeling of the fracture process in a three-unit all-ceramic fixed partial denture. <i>Dental Materials</i> , 2007, 23, 1042-1049.	1.6	34
80	Numerical Modelling of the Heterogeneous Rock Fracture Process Using Various Test Techniques. <i>Rock Mechanics and Rock Engineering</i> , 2007, 40, 107-144.	2.6	45
81	3D modelling for effects of tunnelling on existing support systems. , 2007, , .		2
82	Fracture spacing in layered materials and pattern transition from parallel to polygonal fractures. <i>Physical Review E</i> , 2006, 73, 056120.	0.8	42
83	Numerical studies on the inter-particle breakage of a confined particle assembly in rock crushing. <i>Mechanics of Materials</i> , 2005, 37, 935-954.	1.7	31
84	Microstructural Modeling Approach Applied to Rock Material. <i>Journal of Materials Engineering and Performance</i> , 2005, 14, 104-111.	1.2	11
85	Numerical approach to particle breakage under different loading conditions. <i>Powder Technology</i> , 2004, 143-144, 130-143.	2.1	27
86	Numerical simulation of shear fracture (mode II) in heterogeneous brittle rock. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2004, 41, 14-19.	2.6	14
87	Rock fragmentation mechanisms induced by a drill bit. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2004, 41, 527-532.	2.6	28
88	Characterization of rock heterogeneity and numerical verification. <i>Engineering Geology</i> , 2004, 72, 89-119.	2.9	131
89	Numerical studies on the failure process and associated microseismicity in rock under triaxial compression. <i>Tectonophysics</i> , 2004, 384, 149-174.	0.9	65
90	Numerical simulation of the fracture process in cutting heterogeneous brittle material. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2002, 26, 1253-1278.	1.7	44

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91	Numerical simulation of the rock fragmentation process induced by indenters. International Journal of Rock Mechanics and Minings Sciences, 2002, 39, 491-505.	2.6	207
92	Numerical investigation of particle breakage as applied to mechanical crushing—Part I: Single-particle breakage. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 1147-1162.	2.6	58
93	Numerical investigation of particle breakage as applied to mechanical crushing—Part II: Interparticle breakage. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 1163-1172.	2.6	25
94	Influence of Heterogeneity on Crack Propagation Mode in Brittle Rock. Chinese Journal of Geophysics, 2000, 43, 117-125.	0.2	12
95	On Failure Modes and Strength Characterization of Brittle Disordered Materials under Uniaxial Compression and Tension. Key Engineering Materials, 2000, 183-187, 637-642.	0.4	5
96	Hybrid Finite-Discrete Element Modelling of Dynamic Fracture of Rocks with Various Geometries. Applied Mechanics and Materials, 0, 256-259, 183-186.	0.2	2
97	An overview on advances in computational fracture mechanics of rock. , 0, .		1