Qianbing Zhang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2951523/publications.pdf

Version: 2024-02-01

		87843	110317
67	4,985	38	64
papers	citations	h-index	g-index

69	69	69	2533
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Review of Dynamic Experimental Techniques and Mechanical Behaviour of Rock Materials. Rock Mechanics and Rock Engineering, 2014, 47, 1411-1478.	2.6	823
2	Determination of mechanical properties and full-field strain measurements of rock material under dynamic loads. International Journal of Rock Mechanics and Minings Sciences, 2013, 60, 423-439.	2.6	319
3	Effect of loading rate on fracture toughness and failure micromechanisms in marble. Engineering Fracture Mechanics, 2013, 102, 288-309.	2.0	251
4	Analysis of damage mechanisms and optimization of cut blasting design under high in-situ stresses. Tunnelling and Underground Space Technology, 2017, 66, 19-33.	3.0	180
5	Damage evolution mechanisms of rock in deep tunnels induced by cut blasting. Tunnelling and Underground Space Technology, 2016, 58, 257-270.	3.0	166
6	BIM, machine learning and computer vision techniques in underground construction: Current status and future perspectives. Tunnelling and Underground Space Technology, 2021, 108, 103677.	3.0	153
7	Grain-Based Discrete Element Method (GB-DEM) Modelling of Multi-scale Fracturing in Rocks Under Dynamic Loading. Rock Mechanics and Rock Engineering, 2018, 51, 3785-3817.	2.6	144
8	Quasi-static and dynamic fracture behaviour of rock materials: phenomena and mechanisms. International Journal of Fracture, 2014, 189, 1-32.	1.1	135
9	Full-field measurement and fracture characterisations of rocks under dynamic loads using high-speed three-dimensional digital image correlation. International Journal of Impact Engineering, 2018, 113, 61-72.	2.4	134
10	Quasi-three-dimensional physical model tests on a cavern complex under high in-situ stresses. International Journal of Rock Mechanics and Minings Sciences, 2011, 48, 199-209.	2.6	132
11	High-Speed Photography and Digital Optical Measurement Techniques for Geomaterials: Fundamentals and Applications. Rock Mechanics and Rock Engineering, 2017, 50, 1611-1659.	2.6	115
12	Challenges and opportunities of using tunnel boring machines in mining. Tunnelling and Underground Space Technology, 2016, 57, 287-299.	3.0	107
13	Dynamic tensile behaviours of heterogeneous rocks: The grain scale fracturing characteristics on strength and fragmentation. International Journal of Impact Engineering, 2018, 118, 98-118.	2.4	105
14	Review of single-camera stereo-digital image correlation techniques for full-field 3D shape and deformation measurement. Science China Technological Sciences, 2018, 61, 2-20.	2.0	102
15	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. Rock Mechanics and Rock Engineering, 2020, 53, 1079-1112.	2.6	98
16	Dynamic stress adjustment and rock damage during blasting excavation in a deep-buried circular tunnel. Tunnelling and Underground Space Technology, 2018, 71, 591-604.	3.0	95
17	Large-scale geomechanical model testing of an underground cavern group in a true three-dimensional (3-D) stress state. Canadian Geotechnical Journal, 2010, 47, 935-946.	1.4	90
18	Displacement measurement techniques and numerical verification in 3D geomechanical model tests of an underground cavern group. Tunnelling and Underground Space Technology, 2016, 56, 54-64.	3.0	90

#	Article	IF	Citations
19	Dynamic Mechanical and Fracture Behaviour of Sandstone Under Multiaxial Loads Using a Triaxial Hopkinson Bar. Rock Mechanics and Rock Engineering, 2019, 52, 2175-2195.	2.6	90
20	Effect of microwave treatment on thermal and ultrasonic properties of gabbro. Applied Thermal Engineering, 2017, 127, 359-369.	3.0	89
21	Dynamic fragmentation of rock material: Characteristic size, fragment distribution and pulverization law. Engineering Fracture Mechanics, 2018, 199, 739-759.	2.0	89
22	Modelling the dynamic failure of brittle rocks using a hybrid continuum-discrete element method with a mixed-mode cohesive fracture model. International Journal of Impact Engineering, 2016, 87, 146-155.	2.4	87
23	Stability analysis of underground oil storage caverns by an integrated numerical and microseismic monitoring approach. Tunnelling and Underground Space Technology, 2016, 54, 81-91.	3.0	77
24	Experimental investigation of mechanical characteristics for linings of twins tunnels with asymmetric cross-section. Tunnelling and Underground Space Technology, 2022, 119, 104209.	3.0	69
25	Brazilian Tensile Strength of Anisotropic Rocks: Review and New Insights. Energies, 2018, 11, 304.	1.6	63
26	Long-term performance of metro tunnels induced by adjacent large deep excavation and protective measures in Nanjing silty clay. Tunnelling and Underground Space Technology, 2020, 95, 103147.	3.0	63
27	The effect of specimen shape and strain rate on uniaxial compressive behavior of rock material. Bulletin of Engineering Geology and the Environment, 2016, 75, 1669-1681.	1.6	57
28	Fracture pressure model for inclined wells in layered formations with anisotropic rock strengths. Journal of Petroleum Science and Engineering, 2017, 149, 393-408.	2.1	54
29	A study on sidewall displacement prediction and stability evaluations for large underground power station caverns. International Journal of Rock Mechanics and Minings Sciences, 2010, 47, 1055-1062.	2.6	51
30	Dynamic strength and failure modes of sandstone under biaxial compression. International Journal of Rock Mechanics and Minings Sciences, 2020, 128, 104260.	2.6	51
31	Numerical investigation of arching mechanism to underground excavation in jointed rock mass. Tunnelling and Underground Space Technology, 2015, 50, 54-67.	3.0	48
32	Do joint geometrical properties influence the fracturing behaviour of jointed rock? An investigation through joint orientation. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2015, 1, 3-14.	1.3	48
33	Stability analysis and reinforcement evaluation of high-steep rock slope by microseismic monitoring. Engineering Geology, 2017, 218, 22-38.	2.9	47
34	Dielectric properties of hard rock minerals and implications for microwave-assisted rock fracturing. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2020, 6, 1.	1.3	47
35	A novel collapse pressure model with mechanical-chemical coupling in shale gas formations with multi-weakness planes. Journal of Natural Gas Science and Engineering, 2016, 36, 1151-1177.	2.1	43
36	A method to estimate the pressure arch formation above underground excavation in rock mass. Tunnelling and Underground Space Technology, 2018, 71, 382-390.	3.0	43

#	Article	IF	Citations
37	CT Identification and Fractal Characterization of 3â€Ð Propagation and Distribution of Hydrofracturing Cracks in Lowâ€Permeability Heterogeneous Rocks. Journal of Geophysical Research: Solid Earth, 2018, 123, 2156-2173.	1.4	42
38	A numerical study of spalling and related rockburst under dynamic disturbance using a particle-based numerical manifold method (PNMM). Tunnelling and Underground Space Technology, 2018, 81, 438-449.	3.0	40
39	A damage mechanical model applied to analysis of mechanical properties of jointed rock masses. Tunnelling and Underground Space Technology, 2019, 84, 113-128.	3.0	37
40	Stress Thresholds of Crack Development and Poissonâ€™s Ratio of Rock Material at High Strain Rate. Rock Mechanics and Rock Engineering, 2018, 51, 945-951.	2.6	36
41	Modelling of dynamic rock fracture process using the finite-discrete element method with a novel and efficient contact activation scheme. International Journal of Rock Mechanics and Minings Sciences, 2021, 138, 104645.	2.6	33
42	Multi-LOD BIM for underground metro station: Interoperability and design-to-design enhancement. Tunnelling and Underground Space Technology, 2022, 119, 104232.	3.0	33
43	JHR constitutive model for rock under dynamic loads. Computers and Geotechnics, 2019, 108, 161-172.	2.3	32
44	3D continuum-discrete coupled modelling of triaxial Hopkinson bar tests on rock under multiaxial static-dynamic loads. International Journal of Rock Mechanics and Minings Sciences, 2020, 134, 104448.	2.6	31
45	Effects of nozzle position and waterjet pressure on rock-breaking performance of roadheader. Tunnelling and Underground Space Technology, 2017, 69, 18-27.	3.0	30
46	Mechanical anisotropy of coal under coupled biaxial static and dynamic loads. International Journal of Rock Mechanics and Minings Sciences, 2021, 143, 104807.	2.6	30
47	Particle-Based Numerical Manifold Method to Model Dynamic Fracture Process in Rock Blasting. International Journal of Geomechanics, 2017, 17, .	1.3	29
48	Stress Wave Propagation Across a Rock Mass with Two Non-parallel Joints. Rock Mechanics and Rock Engineering, 2016, 49, 4023-4032.	2.6	26
49	A numerical study of rock scratch tests using the particle-based numerical manifold method. Tunnelling and Underground Space Technology, 2018, 78, 106-114.	3.0	25
50	Fracturing behaviours and AE signatures of anisotropic coal in dynamic Brazilian tests. Engineering Fracture Mechanics, 2021, 252, 107817.	2.0	24
51	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
52	Damage evolution mechanism in production blasting excavation under different stress fields. Simulation Modelling Practice and Theory, 2019, 97, 101969.	2.2	21
53	Dynamic mechanical properties and fracturing behaviour of concrete under biaxial compression. Construction and Building Materials, 2021, 301, 124085.	3.2	20
54	Texture synthesis: A novel method for generating digital models with heterogeneous diversity of rock materials and its CGM verification. Computers and Geotechnics, 2021, 130, 103895.	2.3	19

#	Article	IF	Citations
55	Hugoniot equation of state of rock materials under shock compression. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160169.	1.6	15
56	Perforation model of thin rock slab subjected to rigid projectile impact at an intermediate velocity. International Journal of Impact Engineering, 2020, 139, 103536.	2.4	15
57	Fracture and mechanical characteristics of CO2-saturated sandstone at extreme loading conditions. International Journal of Rock Mechanics and Minings Sciences, 2019, 117, 132-141.	2.6	14
58	A new methodology inspired from the Theory of Critical Distances for determination of inherent tensile strength and fracture toughness of rock materials. International Journal of Rock Mechanics and Minings Sciences, 2022, 152, 105073.	2.6	11
59	Tunnel boring machines (TBMs) in difficult grounds. Tunnelling and Underground Space Technology, 2016, 57, 1-3.	3.0	10
60	Progressive damage and fracture of biaxially-confined anisotropic coal under repeated impact loads. International Journal of Rock Mechanics and Minings Sciences, 2022, 149, 104979.	2.6	10
61	Progressive fracturing of concrete under biaxial confinement and repetitive dynamic loadings: From damage to catastrophic failure. International Journal of Impact Engineering, 2022, 165, 104232.	2.4	10
62	Quantification of dynamic damage and breakage in granite under confined indentation. International Journal of Rock Mechanics and Minings Sciences, 2021, 144, 104763.	2.6	5
63	Dynamic Failure Characteristics and Behavior of Rock Materials. Advances in Civil Engineering, 2019, 2019, 1-2.	0.4	2
64	The analysis and mechanism study of test in the splitting failure of surrounding rock masses of underground caverns. , 2008, , .		0
65	A true 3D physical model test study on the stability of an underground cavern group in Shuangjiangkou Hydropower Station. Proceedings of SPIE, 2009, , .	0.8	0
66	Design and Manufacture of a New Large-Scale Three-Dimensional Geomechanics Model Test System. Advanced Materials Research, 2010, 97-101, 2770-2773.	0.3	0
67	Dynamic deformation and fracturing properties of concrete under biaxial confinements. EPJ Web of Conferences, 2021, 250, 06008.	0.1	0