

# Hong Zhang

## List of Publications by Year in descending order

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46  
papers

1,123  
citations

448610

19  
h-index

445137

33  
g-index

46  
all docs

46  
docs citations

46  
times ranked

522  
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigating the Role of Earthquakes on the Stability of Dangerous Rock Masses and Rockfall Dynamics. <i>Frontiers in Earth Science</i> , 2022, 9, .	0.8	4
2	An Improved Discontinuous Deformation Analysis to Solve Numerical Creep Problem in Shear Direction. <i>Rock Mechanics and Rock Engineering</i> , 2022, 55, 3107-3127.	2.6	7
3	Three-dimensional deformable distinct element method with polyhedral elements and cloud GPGPU acceleration. <i>Computers and Geotechnics</i> , 2022, 146, 104732.	2.3	4
4	Three-dimensional discontinuous deformation analysis derived from the virtual work principle with a simplex integral on the boundary. <i>Computers and Geotechnics</i> , 2022, 146, 104710.	2.3	3
5	Extension of 3-D coupled DDA-SPH method for dynamic analysis of soil-structure interaction problems. <i>Applied Mathematical Modelling</i> , 2022, 111, 436-453.	2.2	5
6	Improved friction force calculation with an augmented open-close iteration formulation in discontinuous deformation analysis. <i>Computers and Geotechnics</i> , 2021, 130, 103932.	2.3	8
7	Modelling of stem-scale turbulence and sediment suspension in vegetated flow. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2021, 59, 355-377.	0.7	6
8	Nonlinear Simulation and Vulnerability Analysis of Masonry Structures Impacted by Flash Floods. <i>Shock and Vibration</i> , 2021, 2021, 1-20.	0.3	1
9	Hydrodynamic and topography based cellular automaton model for simulating debris flow run-out extent and entrainment behavior. <i>Water Research</i> , 2021, 193, 116872.	5.3	9
10	Efficient Investigation of Rock Crack Propagation and Fracture Behaviors during Impact Fragmentation in Rockfalls Using Parallel DDA. <i>Advances in Civil Engineering</i> , 2021, 2021, 1-17.	0.4	0
11	Three-dimensional discontinuous deformation analysis with explicit contact formulation and block-wise multicore CPU acceleration. <i>Computers and Geotechnics</i> , 2021, 139, 104410.	2.3	11
12	A Stochastic Rockfall Model Related to Random Ground Roughness Based on Three-Dimensional Discontinuous Deformation Analysis. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	3
13	The last entrance plane method for contact indeterminacy between convex polyhedral blocks. <i>Computers and Geotechnics</i> , 2020, 117, 103283.	2.3	17
14	Development of a Coupled DDA-SPH Method and its Application to Dynamic Simulation of Landslides Involving Solid-Fluid Interaction. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 113-131.	2.6	42
15	CPU-accelerated explicit discontinuous deformation analysis and its application to landslide analysis. <i>Applied Mathematical Modelling</i> , 2020, 77, 216-234.	2.2	27
16	Distributed-Spring Edge-to-Edge Contact Model for Two-Dimensional Discontinuous Deformation Analysis. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 365-382.	2.6	18
17	A full-stage parallel architecture of three-dimensional discontinuous deformation analysis using OpenMP. <i>Computers and Geotechnics</i> , 2020, 118, 103346.	2.3	19
18	Improvements in DDA program for rockslides with local in-circle contact method and modified open-close iteration. <i>Engineering Geology</i> , 2020, 265, 105433.	2.9	22

#	ARTICLE	IF	CITATIONS
19	Three-Dimensional Numerical Manifold Method Based on Viscoelastic Constitutive Relation. International Journal of Geomechanics, 2020, 20, 04020161.	1.3	3
20	Angle-Based Contact Detection in Discontinuous Deformation Analysis. Rock Mechanics and Rock Engineering, 2020, 53, 5545-5569.	2.6	6
21	OpenMP-Based Parallel Two-Dimensional Discontinuous Deformation Analysis for Large-Scale Simulation. International Journal of Geomechanics, 2020, 20, .	1.3	15
22	Acceleration of contact detection between arbitrarily shaped polyhedra based on multi-cover methods in three dimensional discontinuous deformation analysis. International Journal of Rock Mechanics and Minings Sciences, 2020, 132, 104387.	2.6	12
23	Exploring inelastic collisions using modified three-dimensional discontinuous deformation analysis incorporating a damped contact model. Computers and Geotechnics, 2020, 121, 103456.	2.3	6
24	Extension and application of Discontinuous Deformation Analysis with a damped contact spring model. International Journal of Rock Mechanics and Minings Sciences, 2019, 123, 104123.	2.6	15
25	Evaluation of impact force of rock landslides acting on structures using discontinuous deformation analysis. Computers and Geotechnics, 2019, 114, 103137.	2.3	39
26	Contact detection between polygonal blocks based on a novel multi-cover system for discontinuous deformation analysis. Computers and Geotechnics, 2019, 111, 56-65.	2.3	33
27	Improvement of joint definition and determination in three-dimensional discontinuous deformation analysis. Computers and Geotechnics, 2019, 110, 148-160.	2.3	29
28	Parallel computing of three-dimensional discontinuous deformation analysis based on OpenMP. Computers and Geotechnics, 2019, 106, 304-313.	2.3	49
29	A 3-D DDA damage analysis of brick masonry buildings under the impact of boulders in mountainous areas. Journal of Mountain Science, 2018, 15, 657-671.	0.8	17
30	A new DDA model for kinematic analyses of rockslides on complex 3-D terrain. Bulletin of Engineering Geology and the Environment, 2018, 77, 555-571.	1.6	24
31	Applying modified discontinuous deformation analysis to assess the dynamic response of sites containing discontinuities. Engineering Geology, 2018, 246, 349-360.	2.9	61
32	Method for Resolving Contact Indeterminacy in Three-Dimensional Discontinuous Deformation Analysis. International Journal of Geomechanics, 2018, 18, .	1.3	18
33	Simulating the damage extent of unreinforced brick masonry buildings under boulder impact using three-dimensional discontinuous deformation analysis (3-D DDA). Engineering Failure Analysis, 2018, 93, 122-143.	1.8	12
34	Research on Fault Cutting Algorithm of the Three-Dimensional Numerical Manifold Method. International Journal of Geomechanics, 2017, 17, .	1.3	11
35	Numerical simulation for run-out extent of debris flows using an improved cellular automaton model. Bulletin of Engineering Geology and the Environment, 2017, 76, 961-974.	1.6	18
36	Dynamic simulation of landslide dam behavior considering kinematic characteristics using a coupled DDA-SPH method. Engineering Analysis With Boundary Elements, 2017, 80, 172-183.	2.0	60

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37	A new approach for modeling landslide movement over 3D topography using 3D discontinuous deformation analysis. <i>Computers and Geotechnics</i> , 2017, 81, 87-97.	2.3	34
38	3D numerical simulation of debris-flow motion using SPH method incorporating non-Newtonian fluid behavior. <i>Natural Hazards</i> , 2016, 81, 1981-1998.	1.6	71
39	A new algorithm to identify contact types between arbitrarily shaped polyhedral blocks for three-dimensional discontinuous deformation analysis. <i>Computers and Geotechnics</i> , 2016, 80, 1-15.	2.3	29
40	Extension of three-dimensional discontinuous deformation analysis to frictional-cohesive materials. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2016, 86, 65-79.	2.6	22
41	Elementary analysis on the bed-sediment entrainment by debris flow and its application using the TopFlowDF model. <i>Geomatics, Natural Hazards and Risk</i> , 2016, 7, 764-785.	2.0	16
42	Extensions of edge-to-edge contact model in three-dimensional discontinuous deformation analysis for friction analysis. <i>Computers and Geotechnics</i> , 2016, 71, 261-275.	2.3	41
43	Analysis of landslide-generated impulsive waves using a coupled DDA-SPH method. <i>Engineering Analysis With Boundary Elements</i> , 2016, 64, 267-277.	2.0	67
44	Detection of contacts between three-dimensional polyhedral blocks for discontinuous deformation analysis. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015, 78, 57-73.	2.6	57
45	Exploring the velocity distribution of debris flows: An iteration algorithm based approach for complex cross-sections. <i>Geomorphology</i> , 2015, 241, 72-82.	1.1	26
46	DDA validation of the mobility of earthquake-induced landslides. <i>Engineering Geology</i> , 2015, 194, 38-51.	2.9	126