Antonio Munjiza

List of Publications by Year
in descending order

87	4,869	117453	110170
papers	citations	34	64
		h-index	g-index

89	89	89	2947
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical Simulation of the Ancient Protiron Structure Model Exposed to Seismic Loading. International Journal of Architectural Heritage, 2021, 15, 779-789.	1.7	4
2	Impact Fracture and Fragmentation of Glass via the 3D Combined Finite-Discrete Element Method. Applied Sciences (Switzerland), 2021, 11, 2484.	1.3	17
3	Seismic Analysis of the Bell Tower of the Church of St. Francis of Assisi on Kaptol in Zagreb by Combined Finite-Discrete Element Method. Buildings, 2021, 11, 373.	1.4	5
4	Rotation-Free Based Numerical Model for Nonlinear Analysis of Thin Shells. Buildings, 2021, 11, 657.	1.4	2
5	Structural applications of the combined finiteâ€"discrete element method. Computational Particle Mechanics, 2020, 7, 1029-1046.	1.5	35
6	The combined plastic and discrete fracture deformation framework for finiteâ€discrete element methods. International Journal for Numerical Methods in Engineering, 2020, 121, 1020-1035.	1.5	29
7	Fluidâ€"structure interaction of flexible submerged vegetation stems and kinetic turbine blades. Computational Particle Mechanics, 2020, 7, 839-848.	1.5	16
8	Analysis of dynamic stability of beam structures. Acta Mechanica, 2020, 231, 4701-4715.	1.1	2
9	Response to comment on â€œFlying by the Sun only: The Solarcopter prototypeâ€, Aerosp. Sci. Technol. 45 (2015) 209-214. Aerospace Science and Technology, 2020, 107, 106309.	2.5	0
10	Distributed intelligence and the equivalence of matter and information. Computational Particle Mechanics, 2020, 7, 1073-1080.	1.5	8
11	Numerical investigation on the incipient motion of non-spherical sediment particles in bedload regime of open channel flows. Computational Particle Mechanics, 2020, 7, 987-1003.	1.5	14
12	A novel framework for elastoplastic behaviour of anisotropic solids. Computational Particle Mechanics, 2020, 7, 823-838.	1.5	16
13	FSIS: a novel fluidâ€"solid interaction solver for fracturing and fragmenting solids. Computational Particle Mechanics, 2020, 7, 789-805.	1.5	44
14	Simulation of discrete cracks driven by nearly incompressible fluid via 2D combined finiteâ€discrete element method. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1724-1743.	1.7	36
15	A model for thin shells in the combined finite-discrete element method. Engineering Computations, 2018, 35, 377-394.	0.7	7
16	Discrete Element and Particle Methods. , 2018, , 1-14.		1
17	A computational model of ureteral peristalsis and an investigation into ureteral reflux. Biomedical Engineering Letters, 2018, 8, 117-125.	2.1	16
18	Numerical analysis of 3D dry-stone masonry structures by combined finite-discrete element method. International Journal of Solids and Structures, 2018, 136-137, 150-167.	1.3	60

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19	A novel discrete element method based on the distance potential for arbitrary 2D convex elements. International Journal for Numerical Methods in Engineering, 2018, 115, 238-267.	1.5	28
20	Earthquake Damage Patterns Resolve Complex Rupture Processes. Geophysical Research Letters, 2018, 45, 10,279.	1.5	74
21	A Novel Contact Algorithm Based on a Distance Potential Function for the 3D Discrete-Element Method. Rock Mechanics and Rock Engineering, 2018, 51, 3737-3769.	2.6	25
22	Flow design and simulation of a gas compression system for hydrogen fusion energy production. Fluid Dynamics Research, 2017, 49, 045504.	0.6	3
23	Numerical comparison of some contact detection algorithms. Engineering Computations, 2017, 34, 832-851.	0.7	7
24	Pressure Wave in Liquid Generated by Pneumatic Pistons and Its Interaction with a Free Surface. International Journal of Applied Mechanics, 2017, 09, 1750037.	1.3	9
25	On parallel preâ€conditioners for pressure Poisson equation in LES of complex geometry flows. International Journal for Numerical Methods in Fluids, 2017, 83, 446-464.	0.9	18
26	An Investigation on the Aggregation and Rheodynamics of Human Red Blood Cells Using High Performance Computations. Scientifica, 2017, 2017, 1-10.	0.6	8
27	Defense Mechanisms in â€œPureâ€•Anxiety and â€œPureâ€•Depressive Disorders. Journal of Nervous and Mental Disease, 2016, 204, 746-751.	0.5	16
28	The cumulative effect of genetic polymorphisms on depression and brain structural integrity. Human Brain Mapping, 2016, 37, 2173-2184.	1.9	12
29	The Effects of Ambulatory Accelerations on the Stability of a Magnetically Suspended Impeller for an Implantable Blood Pump. Artificial Organs, 2016, 40, 867-876.	1.0	8
30	A generalized anisotropic deformation formulation for geomaterials. Computational Particle Mechanics, 2016, 3, 215-228.	1.5	43
31	Introduction to the Combined Finite-Discrete Element Method. Advances in Civil and Industrial Engineering Book Series, 2016, , 123-145.	0.2	4
32	Frictional contact analysis of functionally graded materials with Lagrange finite block method. International Journal for Numerical Methods in Engineering, 2015, 103, 391-412.	1.5	19
33	Large Eddy Simulation of Flows Around a Kite Used as an Auxiliary Propulsion System. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	8
34	Flying by the Sun only: The Solarcopter prototype. Aerospace Science and Technology, 2015, 45, 209-214.	2.5	25
35	Brain structural abnormalities in patients with major depression with or without generalized anxiety disorder comorbidity. Journal of Neurology, 2015, 262, 1255-1265.	1.8	66
36	Space decomposition based parallelization solutions for the combined finiteâ€“discrete element method in 2D. Journal of Rock Mechanics and Geotechnical Engineering, 2014, 6, 607-615.	3.7	31

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37	Molecular Dynamics Simulation of Heat Transfer from a Gold Nanoparticle to a Water Pool. Journal of Physical Chemistry C, 2014, 118, 1285-1293.	1.5	64
38	Numerical simulation of a marine current turbine in free surface flow. Renewable Energy, 2014, 63, 715-723.	4.3	65
39	A framework for grand scale parallelization of the combined finite discrete element method in 2d. Computational Particle Mechanics, 2014, 1, 307-319.	1.5	64
40	Saltation of particles in turbulent channel flow. Physical Review E, 2014, 89, 052202.	0.8	50
41	Validation of a three-dimensional Finite-Discrete Element Method using experimental results of the Split Hopkinson Pressure Bar test. International Journal of Rock Mechanics and Minings Sciences, 2014, 70, 101-108.	2.6	132
42	Large scale simulation of red blood cell aggregation in shear flows. Journal of Biomechanics, 2013, 46, 1810-1817.	0.9	72
43	Fracture and fragmentation of thin shells using the combined finite–discrete element method. International Journal for Numerical Methods in Engineering, 2013, 95, 478-498.	1.5	51
44	Direct numerical simulation of sediment entrainment in turbulent channel flow. Physics of Fluids, 2013, 25, .	1.6	62
45	Y-Geo: New Combined Finite-Discrete Element Numerical Code for Geomechanical Applications. International Journal of Geomechanics, 2012, 12, 676-688.	1.3	284
46	Numerical simulation of interaction between laminar flow and elastic sheet. Transactions of Tianjin University, 2012, 18, 85-89.	3.3	2
47	A novel iterative direct-forcing immersed boundary method and its finite volume applications. Journal of Computational Physics, 2012, 231, 1797-1821.	1.9	159
48	A Study on the Role of Reaction Modeling in Multi-phase CFD-based Simulations of Chemical Looping Combustion. Oil and Gas Science and Technology, 2011, 66, 313-331.	1.4	22
49	A comparative study of reaction models applied for chemical looping combustion. Chemical Engineering Research and Design, 2011, 89, 2714-2727.	2.7	32
50	Performance of integration schemes in discrete element simulations of particle systems involving consecutive contacts. Computers and Chemical Engineering, 2011, 35, 2152-2157.	2.0	6
51	Y-GUI: A graphical user interface and pre-processor for the combined finite-discrete element code, Y2D, incorporating material heterogeneity. Computers and Geosciences, 2010, 36, 241-252.	2.0	86
52	The Virtual Geoscience Workbench, VGW: Open Source tools for discontinuous systems. Particuology, 2010, 8, 100-105.	2.0	31
53	A study on adjusted contact force laws for accelerated large scale discrete element simulations. Particuology, 2010, 8, 161-175.	2.0	36
54	Development and testing of an interconnected multiphase CFD-model for chemical looping combustion. Chemical Engineering Science, 2010, 65, 4732-4745.	1.9	74

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55	Reducedâ€dose rocuronium for dayâ€case tonsillectomy in children where volatile anaesthetics are not used: operating room time saving. Paediatric Anaesthesia, 2010, 20, 47-55.	0.6	8
56	On the validation of DEM and FEM/DEM models in 2D and 3D. Engineering Computations, 2009, 26, 673-687.	0.7	66
57	Finite strain, finite rotation quadratic tetrahedral element for the combined finiteâ€"discrete element method. International Journal for Numerical Methods in Engineering, 2009, 79, 946-978.	1.5	83
58	Granular packing: numerical simulation and the characterisation of the effect of particle shape. Granular Matter, 2009, 11, 281-292.	1.1	87
59	Coupled FEMDEM/Fluids for coastal engineers with special reference to armour stability and breakage. Geomechanics and Geoengineering, 2009, 4, 39-53.	0.9	27
60	Discrete Element Methods for Large Scale Particle/Fluid Simulations. , 2009, , .		1
61	Special issue on the discrete element method: aspects of recent developments in computational mechanics of discontinua. Engineering Computations, 2009, 26, .	0.7	10
62	COUPLED FEM-DEM AND CFD FOR COASTAL STRUCTURES: APPLICATION TO ARMOUR STABILITY AND BREAKAGE. , 2009, , .		0
63	TOWARDS A NUMERICAL WAVE SIMULATOR USING THE TWO-FLUID INTERFACE TRACKING APPROACH COMBINED WITH A NOVEL ALE SCHEME. , 2009, , .		1
64	A COUPLED FLUIDS-PARTICULATES MODEL FOR WAVES INTERACTING WITH GRANULAR MEDIA USING FEM AND DEM. , 2009, , .		0
65	Modelling of massive particulates for breakwater engineering using coupled FEMDEM and CFD. Particuology, 2008, 6, 572-583.	2.0	41
66	Three-dimensional particle shape acquisition and use of shape library for DEM and FEM/DEM simulation. Minerals Engineering, 2008, 21, 797-805.	1.8	128
67	Granular temperature as an energy dissipation mechanism in bodies of the Solar System. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2485-2493.	1.0	1
68	MR linear contact detection algorithm. International Journal for Numerical Methods in Engineering, 2006, 66, 46-71.	1.5	64
69	Unstructured Computational Meshes for Subdivision Geometry of Scanned Geological Objects. , 2005, , 73-89.		4
70	Comparison of experimental and FEM/DEM results for gravitational deposition of identical cubes. Engineering Computations, 2004, 21, 249-264.	0.7	21
71	Numerical comparison of some explicit time integration schemes used in DEM, FEM/DEM and molecular dynamics. International Journal for Numerical Methods in Engineering, 2004, 61, 856-879.	1.5	110
72	The combined finiteâ€"discrete element method for structural failure and collapse. Engineering Fracture Mechanics, 2004, 71, 469-483.	2.0	70

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73	Some computational and algorithmic developments in computational mechanics of discontinua. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1817-1833.	1.6	11
74	The modelling of particle systems with real shapes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1953-1972.	1.6	102
75	Shape selection menu for grand scale discontinua systems. Engineering Computations, 2004, 21, 343-359.	0.7	13
76	Experimental validation of a computationally efficient beam element for combined finite-discrete element modelling of structures in distress. Computational Mechanics, 2003, 30, 366-373.	2.2	8
77	3D dynamics of discrete element systems comprising irregular discrete elements?integration solution for finite rotations in 3D. International Journal for Numerical Methods in Engineering, 2003, 56, 35-55.	1.5	70
78	POROSITY AND PACKING SIMULATIONS OF PARTICLES WITH ANY SHAPE OR SIZE â€" DYNAMIC 3D RESULTS. , 2003, , .		0
79	On the prediction of void porosity and packing of rock particulates. Powder Technology, 2002, 125, 10-27.	2.1	71
80	Mesh size sensitivity of the combined FEM/DEM fracture and fragmentation algorithms. Engineering Fracture Mechanics, 2002, 69, 281-295.	2.0	92
81	A random method for simulating loose packs of angular particles using tetrahedra. Geotechnique, 2001, 51, 871-879.	2.2	48
82	Detonation gas model for combined finite-discrete element simulation of fracture and fragmentation. International Journal for Numerical Methods in Engineering, 2000, 49, 1495-1520.	1.5	63
83	Challenges of a coupled combined finite-discrete element approach to explosive induced rock fragmentation. International Journal for Blasting and Fragmentation, 1999, 3, 237-250.	0.2	10
84	Combined single and smeared crack model in combined finite-discrete element analysis. International Journal for Numerical Methods in Engineering, 1999, 44, 41-57.	1.5	261
85	NBS contact detection algorithm for bodies of similar size. International Journal for Numerical Methods in Engineering, 1998, 43, 131-149.	1.5	319
86	A combined finiteâ€discrete element method in transient dynamics of fracturing solids. Engineering Computations, 1995, 12, 145-174.	0.7	517
87	Use Improved Gradient Descent in Irregular Boundary Conditions in Molecular Dynamics. Applied Mechanics and Materials, 0, 598, 476-480.	0.2	1