# A Munjiza

## List of Publications by Year
## in descending order

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|---|---|---|---|
| 53<br>papers | 3,321<br>citations | 201674<br>27<br>h-index | 206112<br>48<br>g-index |
| 55<br>all docs | 55<br>docs citations | 55<br>times ranked | 1650<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | A combined finite€discrete element method in transient dynamics of fracturing solids. Engineering Computations, 1995, 12, 145-174. | 1.4 | 517 |
| 2 | NBS contact detection algorithm for bodies of similar size. International Journal for Numerical Methods in Engineering, 1998, 43, 131-149. | 2.8 | 319 |
| 3 | Y-Geo: New Combined Finite-Discrete Element Numerical Code for Geomechanical Applications. International Journal of Geomechanics, 2012, 12, 676-688. | 2.7 | 284 |
| 4 | Combined single and smeared crack model in combined finite-discrete element analysis. International Journal for Numerical Methods in Engineering, 1999, 44, 41-57. | 2.8 | 261 |
| 5 | Penalty function method for combined finite-discrete element systems comprising large number of separate bodies. International Journal for Numerical Methods in Engineering, 2000, 49, 1377-1396. | 2.8 | 187 |
| 6 | A novel iterative direct-forcing immersed boundary method and its finite volume applications. Journal of Computational Physics, 2012, 231, 1797-1821. | 3.8 | 159 |
| 7 | 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. | 5.8 | 132 |
| 8 | 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. | 2.8 | 110 |
| 9 | The modelling of particle systems with real shapes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1953-1972. | 3.4 | 102 |
| 10 | Mesh size sensitivity of the combined FEM/DEM fracture and fragmentation algorithms. Engineering Fracture Mechanics, 2002, 69, 281-295. | 4.3 | 92 |
| 11 | 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. | 4.2 | 86 |
| 12 | Development and testing of an interconnected multiphase CFD-model for chemical looping combustion. Chemical Engineering Science, 2010, 65, 4732-4745. | 3.8 | 74 |
| 13 | 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. | 2.8 | 70 |
| 14 | The combined finite€"discrete element method for structural failure and collapse. Engineering Fracture Mechanics, 2004, 71, 469-483. | 4.3 | 70 |
| 15 | Numerical simulation of a marine current turbine in free surface flow. Renewable Energy, 2014, 63, 715-723. | 8.9 | 65 |
| 16 | MR linear contact detection algorithm. International Journal for Numerical Methods in Engineering, 2006, 66, 46-71. | 2.8 | 64 |
| 17 | A framework for grand scale parallelization of the combined finite discrete element method in 2d. Computational Particle Mechanics, 2014, 1, 307-319. | 3.0 | 64 |
| 18 | Detonation gas model for combined finite-discrete element simulation of fracture and fragmentation. International Journal for Numerical Methods in Engineering, 2000, 49, 1495-1520. | 2.8 | 63 |

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|---|---------|-----|-----------|
| 19 | Direct numerical simulation of sediment entrainment in turbulent channel flow. Physics of Fluids, 2013, 25, . | 4.0 | 62 |
| 20 | Simulation of Fracture Coalescence in Granite via the Combined Finite–Discrete Element Method. Rock Mechanics and Rock Engineering, 2019, 52, 3213-3227. | 5.4 | 53 |
| 21 | Fracture and fragmentation of thin shells using the combined finite–discrete element method. International Journal for Numerical Methods in Engineering, 2013, 95, 478-498. | 2.8 | 51 |
| 22 | A random method for simulating loose packs of angular particles using tetrahedra. Geotechnique, 2001, 51, 871-879. | 4.0 | 48 |
| 23 | A generalized anisotropic deformation formulation for geomaterials. Computational Particle Mechanics, 2016, 3, 215-228. | 3.0 | 43 |
| 24 | AnM(M$\hat{a}$'1K)m proportional damping in explicit integration of dynamic structural systems. International Journal for Numerical Methods in Engineering, 1998, 41, 1277-1296. | 2.8 | 38 |
| 25 | A comparative study of reaction models applied for chemical looping combustion. Chemical Engineering Research and Design, 2011, 89, 2714-2727. | 5.6 | 32 |
| 26 | The Virtual Geoscience Workbench, VGW: Open Source tools for discontinuous systems. Particuology, 2010, 8, 100-105. | 3.6 | 31 |
| 27 | Space decomposition based parallelization solutions for the combined finite–discrete element method in 2D. Journal of Rock Mechanics and Geotechnical Engineering, 2014, 6, 607-615. | 8.1 | 31 |
| 28 | 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 |
| 29 | Comparison of experimental and FEM/DEM results for gravitational deposition of identical cubes. Engineering Computations, 2004, 21, 249-264. | 1.4 | 21 |
| 30 | Frictional contact analysis of functionally graded materials with Lagrange finite block method. International Journal for Numerical Methods in Engineering, 2015, 103, 391-412. | 2.8 | 19 |
| 31 | On parallel pre–conditioners for pressure Poisson equation in LES of complex geometry flows. International Journal for Numerical Methods in Fluids, 2017, 83, 446-464. | 1.6 | 18 |
| 32 | A computational model of ureteral peristalsis and an investigation into ureteral reflux. Biomedical Engineering Letters, 2018, 8, 117-125. | 4.1 | 16 |
| 33 | Rock fragmentation by blasting—a literature study of research in the 1980's and 1990's. International Journal for Blasting and Fragmentation, 1999, 3, 193-212. | 0.2 | 14 |
| 34 | Shape selection menu for grand scale discontinua systems. Engineering Computations, 2004, 21, 343-359. | 1.4 | 13 |
| 35 | Some computational and algorithmic developments in computational mechanics of discontinua. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1817-1833. | 3.4 | 11 |
| 36 | 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 |

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| 37 | Experimental validation of a computationally efficient beam element for combined finite-discrete element modelling of structures in distress. Computational Mechanics, 2003, 30, 366-373. | 4.0 | 8 |
| 38 | Simulation of the Upper Urinary System. Critical Reviews in Biomedical Engineering, 2013, 41, 259-268. | 0.9 | 8 |
| 39 | Large Eddy Simulation of Flows Around a Kite Used as an Auxiliary Propulsion System. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, . | 1.5 | 8 |
| 40 | Performance of integration schemes in discrete element simulations of particle systems involving consecutive contacts. Computers and Chemical Engineering, 2011, 35, 2152-2157. | 3.8 | 6 |
| 41 | HOSS. , 2013, , 97-104. | | 6 |
| 42 | Study on the packed volume-to-void ratio of idealized human red blood cells using a finite-discrete element method. Applied Mathematics and Mechanics (English Edition), 2019, 40, 737-750. | 3.6 | 5 |
| 43 | A computationally efficient numerical model for a dynamic analysis of beam type structures based on the combined finite€discrete element method. Materialwissenschaft Und Werkstofftechnik, 2018, 49, 651-665. | 0.9 | 4 |
| 44 | Penalty function method for combined finite–discrete element systems comprising large number of separate bodies. International Journal for Numerical Methods in Engineering, 2000, 49, 1377-1396. | 2.8 | 4 |
| 45 | Computational Challenge of Large Scale Discontinua Analysis. , 2002, , 5. | | 3 |
| 46 | Flow design and simulation of a gas compression system for hydrogen fusion energy production. Fluid Dynamics Research, 2017, 49, 045504. | 1.3 | 3 |
| 47 | Computational aspects of the combined finite€discrete element method in static and dynamic analysis of shell structures. Materialwissenschaft Und Werkstofftechnik, 2018, 49, 635-651. | 0.9 | 3 |
| 48 | Numerical simulation of reinforced concrete structures under impact loading. Materialwissenschaft Und Werkstofftechnik, 2019, 50, 599-610. | 0.9 | 3 |
| 49 | NBS contact detection algorithm for bodies of similar size. , 1998, 43, 131. | | 3 |
| 50 | Numerical simulation of interaction between laminar flow and elastic sheet. Transactions of Tianjin University, 2012, 18, 85-89. | 6.4 | 2 |
| 51 | Detonation gas model for combined finite€discrete element simulation of fracture and fragmentation. International Journal for Numerical Methods in Engineering, 2000, 49, 1495-1520. | 2.8 | 2 |
| 52 | A Computationally Efficient Beam Element for FEM/DEM Simulations of Structural Failure and Collapse. , 2002, , 133. | | 1 |
| 53 | Parallel Pressure Poisson Solvers for LES of Complex Geometry Flows. , 2015, , . | | 0 |