Yong-Gang Zheng

List of Publications by Year in Descending Order

96 papers	1,680 citations	20 h-index	37 g-index
103 ext. papers	1,980 ext. citations	3.7 avg, IF	4.95 L-index

#	Paper	IF	Citations
96	Phase-field implicit material point method with the convected particle domain interpolation for brittle–ductile failure transition in geomaterials involving finite deformation. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 390, 114420	5.7	1
95	Time-discontinuous state-based peridynamics for elasto-plastic dynamic fracture problems. *Engineering Fracture Mechanics*, **2022**, 266, 108392	4.2	0
94	Nanostructural characteristics-mediated plastic behavior of Cu/Ag polycrystalline multilayered materials. *Physica Scripta*, **2021**, 96, 015701	2.6	1
93	An adaptive multiscale finite element method for strain localization analysis with the Cosserat continuum theory. *European Journal of Mechanics, A/Solids*, **2021**, 104450	3.7	
92	Implicit Material Point Method with Convected Particle Domain Interpolation for Consolidation and Dynamic Analysis of Saturated Porous Media with Massive Deformation. *International Journal of Applied Mechanics*, **2021**, 13, 2150023	2.4	3
91	A solid-shell finite element method for the anisotropic swelling of hydrogels with reinforced fibers. *European Journal of Mechanics, A/Solids*, **2021**, 86, 104197	3.7	0
90	A total-Lagrangian material point method for coupled growth and massive deformation of incompressible soft materials. *International Journal for Numerical Methods in Engineering*, **2021**, 122, 6180	2.4	2
89	A time-discontinuous peridynamic method for transient problems involving crack propagation. *International Journal for Numerical Methods in Engineering*, **2021**, 122, 1824-1845	2.4	2
88	Machine learning for reparameterization of four-site water models: TIP4P-BG and TIP4P-BGT. *Physical Chemistry Chemical Physics*, **2021**, 23, 10164-10173	3.6	4
87	The importance of H2 in the controlled growth of semiconducting single-wall carbon nanotubes. *Journal of Materials Science and Technology*, **2020**, 54, 105-111	9.1	1
86	Coupling lattice Boltzmann and material point method for fluid-solid interaction problems involving massive deformation. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 5546-5567	2.4	2
85	High-order NURBS elements based isogeometric formulation for swellable soft materials. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 363, 112901	5.7	8
84	A mixed isogeometric analysis approach for the transient swelling of hydrogel. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 372, 113384	5.7	4
83	Extended multiscale finite element method based on polyhedral coarse grid elements for heterogeneous materials and structures. *Materials Today Communications*, **2020**, 24, 101142	2.5	1
82	Helium implantation effects on the tensile response of nano-twinned copper. *Journal of Nuclear Materials*, **2020**, 541, 152426	3.3	1
81	Axisymmetric Generalized Interpolation Material Point Method for Fully Coupled Thermomechanical Evaluation of Transient Responses. *International Journal of Computational Methods*, **2020**, 17, 1950003	1.1	1
80	An arbitrary multi-node extended multiscale finite element method for thermoelastic problems with polygonal microstructures. *International Journal of Mechanics and Materials in Design*, **2020**, 16, 35-56	2.5	2

79	Large deformation and wrinkling analyses of bimodular structures and membranes based on a peridynamic computational framework. *Acta Mechanica Sinica/Lixue Xuebao*, **2019**, 35, 1226-1240	2	5
78	An adjustable permeation membrane up to the separation for multicomponent gas mixture. *Scientific Reports*, **2019**, 9, 7380	4.9	8
77	A coupling peridynamic approach for the consolidation and dynamic analysis of saturated porous media. *Computational Mechanics*, **2019**, 64, 1097-1113	4	16
76	Regulating the mechanical properties of nanocrystalline nickel via molybdenum segregation: an atomistic study. *Nanotechnology*, **2019**, 30, 275702	3.4	3
75	The effect of flaw filling material on the compressive behaviour of 3D printed rock-like discs. *International Journal of Rock Mechanics and Minings Sciences*, **2019**, 117, 105-117	6	32
74	A coupling extended multiscale finite element and peridynamic method for modeling of crack propagation in solids. *Acta Mechanica*, **2019**, 230, 3667-3692	2.1	6
73	Unidirectional Self-Driving Liquid Droplet Transport on a Monolayer Graphene-Covered Textured Substrate. *ACS Applied Materials & Interfaces*, **2019**, 11, 28562-28570	9.5	22
72	Gradient structure regulated plastic deformation mechanisms in polycrystalline nanotwinned copper. *Journal Physics D: Applied Physics*, **2019**, 52, 365304	3	4
71	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. *Soil Dynamics and Earthquake Engineering*, **2019**, 120, 245-256	3.5	4
70	A solid-shell based finite element model for thin-walled soft structures with a growing mass. *International Journal of Solids and Structures*, **2019**, 163, 87-101	3.1	8
69	Coupling effect of twin boundary and void on the mechanical properties of bulk nanotwinned copper: an atomistic simulation. *Journal Physics D: Applied Physics*, **2019**, 52, 055303	3	2
68	Tensile mechanical properties of nano-twinned copper containing silver inclusions. *Physica B: Condensed Matter*, **2019**, 554, 97-101	2.8	3
67	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. *International Journal of Impact Engineering*, **2018**, 116, 65-78	4	9
66	Divergent effect of electric fields on the mechanical property of water-filled carbon nanotubes with an application as a nanoscale trigger. *Nanotechnology*, **2018**, 29, 025707	3.4	2
65	Development of generalized interpolation material point method for simulating fully coupled thermomechanical failure evolution. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 332, 325-342	5.7	14
64	Receptor-Mediated Endocytosis of Nanoparticles: Roles of Shapes, Orientations, and Rotations of Nanoparticles. *Journal of Physical Chemistry B*, **2018**, 122, 171-180	3.4	34
63	Time-discontinuous material point method for transient problems. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 328, 663-685	5.7	12
62	Aggregation of nanoparticles regulated by mechanical properties of nanoparticle-membrane system. *Nanotechnology*, **2018**, 29, 405102	3.4	8

61	An Implicit Coupling Finite Element and Peridynamic Method for Dynamic Problems of Solid Mechanics with Crack Propagation. *International Journal of Applied Mechanics*, **2018**, 10, 1850037	2.4	15
60	Crystallization behaviors and mechanical properties of carbon nanotube encapsulated copper nanowires. *Computational Materials Science*, **2018**, 143, 350-359	3.2	4
59	Mechanically Guided Assembly of Monolithic Three-Dimensional Structures from Elastomer Composites. *ACS Applied Materials & Interfaces*, **2018**, 10, 44716-44721	9.5	4
58	A multiscale finite element method for the localization analysis of homogeneous and heterogeneous saturated porous media with embedded strong discontinuity model. *International Journal for Numerical Methods in Engineering*, **2017**, 112, 1439-1472	2.4	4
57	A robust Riks-like path following method for strain-actuated snap-through phenomena in soft solids. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 323, 416-438	5.7	10
56	Hetero interface and twin boundary mediated strengthening in nano-twinned Cu//Ag multilayered materials. *Nanotechnology*, **2017**, 28, 415705	3.4	10
55	Vibration-Induced Property Change in the Melting and Solidifying Process of Metallic Nanoparticles. *Nanoscale Research Letters*, **2017**, 12, 308	5	4
54	Torsional failure of water-filled carbon nanotubes. *International Journal of Damage Mechanics*, **2016**, 25, 87-97	3	3
53	A multiscale finite element method with embedded strong discontinuity model for the simulation of cohesive cracks in solids. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 311, 576-598	5.7	15
52	Generalized interpolation material point method for coupled thermo-mechanical processes. *International Journal of Mechanics and Materials in Design*, **2016**, 12, 577-595	2.5	13
51	Controllable deformation of salt water-filled carbon nanotubes using an electric field with application to molecular sieving. *Nanotechnology*, **2016**, 27, 315702	3.4	10
50	Twin-induced template effect on the inelastic deformation of hierarchically nanotwinned copper under indentation and scratch. *International Journal of Damage Mechanics*, **2016**, 25, 56-68	3	6
49	A Micromechanically Based Constitutive Model for the Inelastic and Swelling Behaviors in Double Network Hydrogels. *Journal of Applied Mechanics, Transactions ASME*, **2016**, 83,	2.7	19
48	A peridynamic model for the nonlinear static analysis of truss and tensegrity structures. *Computational Mechanics*, **2016**, 57, 843-858	4	15
47	Transient swelling of polymeric hydrogels: A new finite element solution framework. *International Journal of Solids and Structures*, **2016**, 80, 246-260	3.1	22
46	Lattice Boltzmann models for the grain growth in polycrystalline systems. *AIP Advances*, **2016**, 6, 085315	1.5	1
45	Free-end adaptive nudged elastic band method for locating transition states in minimum energy path calculation. *Journal of Chemical Physics*, **2016**, 145, 094104	3.9	13
44	Anisotropic Swelling in Fiber-Reinforced Hydrogels: An Incremental Finite Element Method and Its Applications in Design of Bilayer Structures. *International Journal of Applied Mechanics*, **2016**, 08, 1640003	2.4	14

43	Twin Boundaries merely as Intrinsically Kinematic Barriers for Screw Dislocation Motion in FCC Metals. *Scientific Reports*, **2016**, 6, 22893	4.9	12
42	Wrapping of a deformable nanoparticle by the cell membrane: Insights into the flexibility-regulated nanoparticle-membrane interaction. *Journal of Applied Physics*, **2016**, 120, 114701	2.5	13
41	Molten and solidification properties of copper nanoparticles. *Surface and Interface Analysis*, **2016**, 48, 1423-1428	1.5	
40	Reversible stretching of pre-strained water-filled carbon nanotubes under electric fields. *Microfluidics and Nanofluidics*, **2015**, 18, 1201-1207	2.8	5
39	A concurrent multiscale method for simulation of crack propagation. *Acta Mechanica Solida Sinica*, **2015**, 28, 235-251	2	13
38	Constitutive modeling for polymer hydrogels: A new perspective and applications to anisotropic hydrogels in free swelling. *European Journal of Mechanics, A/Solids*, **2015**, 54, 171-186	3.7	23
37	A multiplicative finite element algorithm for the inhomogeneous swelling of polymeric gels. *Computer Methods in Applied Mechanics and Engineering*, **2015**, 283, 517-550	5.7	21
36	A coupling extended multiscale finite element method for dynamic analysis of heterogeneous saturated porous media. *International Journal for Numerical Methods in Engineering*, **2015**, 104, 18-47	2.4	10
35	Adhesion and bending rigidity-mediated wrapping of carbon nanotubes by a substrate-supported cell membrane. *RSC Advances*, **2015**, 5, 43772-43779	3.7	4
34	Wrapping of nanoparticles by the cell membrane: the role of interactions between the nanoparticles. *Soft Matter*, **2015**, 11, 8674-83	3.6	28
33	General coupling extended multiscale FEM for elasto-plastic consolidation analysis of heterogeneous saturated porous media. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2015**, 39, 63-95	4	11
32	Radial stability and configuration transition of carbon nanotubes regulated by enclosed cores. *AIP Advances*, **2015**, 5, 057155	1.5	1
31	A nonlinear finite element model for the stress analysis of soft solids with a growing mass. *International Journal of Solids and Structures*, **2014**, 51, 2964-2978	3.1	10
30	The tunable mechanical property of water-filled carbon nanotubes under an electric field. *Journal Physics D: Applied Physics*, **2014**, 47, 125302	3	4
29	Atomistic investigations of tensile and shear mechanical properties of nanotwinned copper with embedded defects. *International Journal of Computational Materials Science and Engineering*, **2014**, 03, 1450012	0.3	
28	Static and dynamic properties of argon inside carbon nanotubes. *International Journal of Computational Materials Science and Engineering*, **2014**, 03, 1450018	0.3	2
27	Molecular dynamics investigation of plastic deformation mechanism in bulk nanotwinned copper with embedded cracks. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2014**, 378, 736-740	2.2	15
26	Formation of quasi-icosahedral structures with multi-conjoint fivefold deformation twins in fivefold twinned metallic nanowires. *Applied Physics Letters*, **2013**, 103, 041909	3.4	10

25	Improved convected particle domain interpolation method for coupled dynamic analysis of fully saturated porous media involving large deformation. *Computer Methods in Applied Mechanics and Engineering*, **2013**, 257, 150-163	5.7	24
24	Coupling extended multiscale finite element method for thermoelastic analysis of heterogeneous multiphase materials. *Computers and Structures*, **2013**, 121, 32-49	4.5	24
23	LOADING, CHARGING AND THERMAL EFFECTS ON THE MECHANISM OF WATER–CARBON NANOTUBE TRANSMISSION. *International Journal of Computational Materials Science and Engineering*, **2013**, 02, 1350017	0.3	1
22	IMPACT-INDUCED BENDING RESPONSE OF SINGLE CRYSTAL AND FIVE-FOLD TWINNED NANOWIRES. *International Journal for Multiscale Computational Engineering*, **2013**, 11, 1-16	2.4	7
21	Water Sheared by Charged Graphene Sheets. *Journal of Adhesion Science and Technology*, **2012**, 26, 1897–1908		9
20	An adaptive multiscale method for strain localization analysis of 2D periodic lattice truss materials. *Philosophical Magazine*, **2012**, 92, 3723-3752	1.6	5
19	Water diffusion inside carbon nanotubes: mutual effects of surface and confinement. *Physical Chemistry Chemical Physics*, **2012**, 14, 964-71	3.6	64
18	Size and surface effects on the mechanical behavior of nanotubes in first gradient elasticity. *Composites Part B: Engineering*, **2012**, 43, 27-32	10	12
17	Carbon nanotube-based charge-controlled speed-regulating nanoclutch. *Journal of Applied Physics*, **2012**, 111, 114304	2.5	13
16	A simulation study on nanoscale holes generated by gold nanoparticles on negative lipid bilayers. *Langmuir*, **2011**, 27, 8323-32	4	72
15	A multi-scale method for thermal conduction simulation in granular materials. *Computational Materials Science*, **2011**, 50, 2750-2758	3.2	12
14	Prediction of the viscosity of water confined in carbon nanotubes. *Microfluidics and Nanofluidics*, **2011**, 10, 403-414	2.8	56
13	Nanoconfinement induced anomalous water diffusion inside carbon nanotubes. *Microfluidics and Nanofluidics*, **2011**, 10, 1359-1364	2.8	45
12	Size and temperature effects on the viscosity of water inside carbon nanotubes. *Nanoscale Research Letters*, **2011**, 6, 87	5	45
11	Simulation Study of Aggregations of Monolayer-Protected Gold Nanoparticles in Solvents. *Journal of Physical Chemistry C*, **2011**, 115, 18991-18998	3.8	53
10	Reassessing molecular sieving by kinked carbon nanotubes. *Modelling and Simulation in Materials Science and Engineering*, **2011**, 19, 085009	2	6
9	Corrected second-order slip boundary condition for fluid flows in nanochannels. *Physical Review E*, **2010**, 81, 066303	2.4	34
8	Loading path effect on the mechanical behaviour and fivefold twinning of copper nanowires. *Journal Physics D: Applied Physics*, **2010**, 43, 335402	3	14

7	Penetration of lipid membranes by gold nanoparticles: insights into cellular uptake, cytotoxicity, and their relationship. *ACS Nano*, **2010**, 4, 5421-9	16.7	479
6	Torsional properties of metallic nanosprings. *Acta Mechanica Solida Sinica*, **2009**, 22, 657-664	2	2
5	Atomistic study of the mechanical response of copper nanowires under torsion. *Journal Physics D: Applied Physics*, **2009**, 42, 135408	3	45
4	Deformation and Stability of Copper Nanowires under Bending. *International Journal for Multiscale Computational Engineering*, **2009**, 7, 205-215	2.4	12
3	Gas separation by kinked single-walled carbon nanotubes: Molecular dynamics simulations. *Physical Review B*, **2008**, 78,	3.3	24
2	Torsion induced by axial strain of double-walled carbon nanotubes. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2008**, 372, 3488-3492	2.3	26
1	Coupling moving morphable voids and components based topology optimization of hydrogel structures involving large deformation. *Journal of Applied Mechanics, Transactions ASME*,1-33	2.7	1