

Zhi-Qian Zhang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3134096/publications.pdf>

Version: 2024-02-01

52
papers

1,385
citations

304743

22
h-index

345221

36
g-index

53
all docs

53
docs citations

53
times ranked

1069
citing authors

#	ARTICLE	IF	CITATIONS
1	Propagation of instability in dielectric elastomers. International Journal of Solids and Structures, 2008, 45, 3739-3750.	2.7	143
2	Self-Healing Four-Dimensional Printing with an Ultraviolet Curable Double-Network Shape Memory Polymer System. ACS Applied Materials & Interfaces, 2019, 11, 10328-10336.	8.0	126
3	Temporal stabilization of the node-based smoothed finite element method and solution bound of linear elastostatics and vibration problems. Computational Mechanics, 2010, 46, 229-246.	4.0	89
4	Immersed smoothed finite element method for fluid-structure interaction simulation of aortic valves. Computational Mechanics, 2012, 50, 789-804.	4.0	71
5	Immersed smoothed finite element method for two dimensional fluid-structure interaction problems. International Journal for Numerical Methods in Engineering, 2012, 90, 1292-1320.	2.8	68
6	A three dimensional immersed smoothed finite element method (3D IS-FEM) for fluid-structure interaction problems. Computational Mechanics, 2013, 51, 129-150.	4.0	62
7	Giant voltage-induced deformation of a dielectric elastomer under a constant pressure. Applied Physics Letters, 2014, 105, 112901.	3.3	55
8	An edge-based/node-based selective smoothed finite element method using tetrahedrons for cardiovascular tissues. Engineering Analysis With Boundary Elements, 2015, 59, 62-77.	3.7	46
9	Wearable Mechanotransduced Tactile Sensor for Haptic Perception. Advanced Materials Technologies, 2017, 2, 1700006.	5.8	45
10	A cell-based smoothed finite element method with semi-implicit CBS procedures for incompressible laminar viscous flows. International Journal for Numerical Methods in Fluids, 2018, 86, 20-45.	1.6	45
11	Selective smoothed finite element methods for extremely large deformation of anisotropic incompressible bio-tissues. International Journal for Numerical Methods in Engineering, 2014, 99, 587-610.	2.8	38
12	A soft active origami robot. Extreme Mechanics Letters, 2018, 24, 30-37.	4.1	38
13	A sharp-interface immersed smoothed finite element method for interactions between incompressible flows and large deformation solids. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 24-53.	6.6	35
14	Coupling of SPH with smoothed point interpolation method for violent fluid-structure interaction problems. Engineering Analysis With Boundary Elements, 2019, 103, 1-10.	3.7	35
15	AN IMMERSSED SMOOTHED FINITE ELEMENT METHOD FOR FLUID-STRUCTURE INTERACTION PROBLEMS. International Journal of Computational Methods, 2011, 08, 747-757.	1.3	34
16	Dynamic pattern of wrinkles in a dielectric elastomer. Soft Matter, 2017, 13, 2942-2951.	2.7	31
17	A smoothed finite element method for analysis of anisotropic large deformation of passive rabbit ventricles in diastole. International Journal for Numerical Methods in Biomedical Engineering, 2015, 31, e02697.	2.1	29
18	Cold spray deposition of Inconel 718 in comparison with atmospheric plasma spray deposition. Applied Surface Science, 2021, 535, 147704.	6.1	29

#	ARTICLE	IF	CITATIONS
19	A Finite Element Method for Inhomogeneous Deformation of Viscoelastic Dielectric Elastomers. <i>International Journal of Applied Mechanics</i> , 2015, 07, 1550069.	2.2	28
20	An edge-based smoothed finite element method (ES-FEM) using 3-node triangular elements for 3D nonlinear analysis of spatial membrane structures. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 135-154.	2.8	27
21	Phase field simulation for fracture behavior of hyperelastic material at large deformation based on edge-based smoothed finite element method. <i>Engineering Fracture Mechanics</i> , 2020, 238, 107233.	4.3	27
22	Solution bound and nearly exact solution to nonlinear solid mechanics problems based on the smoothed FEM concept. <i>Engineering Analysis With Boundary Elements</i> , 2014, 42, 99-114.	3.7	24
23	Instabilities in dielectric elastomers: buckling, wrinkling, and crumpling. <i>Soft Matter</i> , 2019, 15, 7137-7144.	2.7	23
24	Smoothed finite element methods (S-FEMs) with polynomial pressure projection (P3) for incompressible solids. <i>Engineering Analysis With Boundary Elements</i> , 2017, 84, 253-269.	3.7	19
25	An immersed smoothed point interpolation method (IS-PIM) for fluid-structure interaction problems. <i>International Journal for Numerical Methods in Fluids</i> , 2017, 85, 213-234.	1.6	17
26	Coupling immersed method with node-based partly smoothed point interpolation method (NPS-PIM) for large-displacement fluid-structure interaction problems. <i>Ocean Engineering</i> , 2018, 157, 180-201.	4.3	17
27	A stabilized finite element method for certified solution with bounds in static and frequency analyses of piezoelectric structures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 241-244, 65-81.	6.6	15
28	Upper and lower bounds for natural frequencies: A property of the smoothed finite element methods. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 84, 149-178.	2.8	13
29	A 3D multi-field element for simulating the electromechanical coupling behavior of dielectric elastomers. <i>Acta Mechanica Solida Sinica</i> , 2017, 30, 374-389.	1.9	13
30	Impact velocity-dependent bonding mechanisms in metal cold spray. <i>Surface and Coatings Technology</i> , 2022, 433, 128085.	4.8	13
31	A modified immersed smoothed FEM with local field reconstruction for fluid-structure interactions. <i>Engineering Analysis With Boundary Elements</i> , 2019, 107, 218-232.	3.7	12
32	An experimentally validated dislocation density based computational framework for predicting microstructural evolution in cold spray process. <i>International Journal of Solids and Structures</i> , 2021, 225, 111065.	2.7	12
33	Moving least-squares approximation with discontinuous derivative basis functions for shell structures with slope discontinuities. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 76, 1202-1230.	2.8	11
34	A Semi-Explicit Finite Element Method for Dynamic Analysis of Dielectric Elastomers. <i>International Journal of Computational Methods</i> , 2015, 12, 1350108.	1.3	11
35	A quasi-implicit characteristic-based penalty finite element method for incompressible laminar viscous flows. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 114, 147-171.	2.8	11
36	Impact induced metallurgical and mechanical interlocking in metals. <i>Computational Materials Science</i> , 2021, 192, 110363.	3.0	11

#	ARTICLE	IF	CITATIONS
37	A Smoothed Finite Element Method (S-FEM) for Large-Deformation Elastoplastic Analysis. International Journal of Computational Methods, 2015, 12, 1540011.	1.3	10
38	A Locking-Free Face-Based S-FEM via Averaging Nodal Pressure using 4-Nodes Tetrahedrons for 3D Explicit Dynamics and Quasi-statics. International Journal of Computational Methods, 2018, 15, 1850043.	1.3	10
39	Nonlinear 3D numerical computations for the square membrane versus experimental data. Engineering Structures, 2011, 33, 1828-1837.	5.3	9
40	Fourth-order phase field model with spectral decomposition for simulating fracture in hyperelastic material. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 2372-2388.	3.4	7
41	A Finite Element Method for Dielectric Elastomers Affected by Viscoelasticity and Current Leakage. International Journal of Applied Mechanics, 2018, 10, 1850102.	2.2	6
42	Conservational integrals of the fourth-order phase field model for brittle fracture via Noether theorem. Engineering Fracture Mechanics, 2021, 245, 107590.	4.3	6
43	An Effective Multiscale Methodology for the Analysis of Marine Flexible Risers. Journal of Marine Science and Engineering, 2019, 7, 340.	2.6	5
44	Multiscale Finite Element Analysis of Unbonded Flexible Risers. , 2014, , .		3
45	A dielectric elastomer actuator coupled with water: snap-through instability and giant deformation. Proceedings of SPIE, 2015, , .	0.8	2
46	Multiscale Modeling to Predict the Hydrophobicity of an Experimentally Designed Coating. Journal of Physical Chemistry C, 2020, 124, 9866-9875.	3.1	2
47	Numerical and Experimental Study on the Residual Stresses in the Nitrided Steel. Journal of Materials Engineering and Performance, 2016, 25, 4036-4045.	2.5	1
48	An Automated Deposition Procedure for Cold Spray Additive Manufacturing Process Modeling Based on Finite Element Simulation. Lecture Notes in Mechanical Engineering, 2020, , 133-143.	0.4	1
49	Removing Void Elements for Structural Level Set Topology Optimizaiton. Journal of Computational Science and Technology, 2009, 3, 385-395.	0.4	0
50	Multiscale Modelling Approaches for Flexible Risers: Procedures, Capabilities and Demonstrations. , 2016, , .		0
51	Prediction of Microstructure Evolution of Cold Sprayed Coatings Using a Dislocation Density Based Constitutive Model. Lecture Notes in Mechanical Engineering, 2022, , 125-128.	0.4	0
52	Interface Tracking in Meshfree Methods and its Applications. Lecture Notes in Computational Science and Engineering, 2008, , 173-188.	0.3	0