

# Timon Rabczuk

## List of Publications by Year in descending order

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662  
papers

45,142  
citations

1301

109  
h-index

3486

182  
g-index

673  
all docs

673  
docs citations

673  
times ranked

17008  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cracking particles: a simplified meshfree method for arbitrary evolving cracks. <i>International Journal for Numerical Methods in Engineering</i> , 2004, 61, 2316-2343.	2.8	1,272
2	Meshless methods: A review and computer implementation aspects. <i>Mathematics and Computers in Simulation</i> , 2008, 79, 763-813.	4.4	944
3	A three-dimensional large deformation meshfree method for arbitrary evolving cracks. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 2777-2799.	6.6	913
4	An energy approach to the solution of partial differential equations in computational mechanics via machine learning: Concepts, implementation and applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112790.	6.6	799
5	A simple and robust three-dimensional cracking-particle method without enrichment. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 2437-2455.	6.6	725
6	Dual-horizon peridynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 108, 1451-1476.	2.8	545
7	A software framework for probabilistic sensitivity analysis for computationally expensive models. <i>Advances in Engineering Software</i> , 2016, 100, 19-31.	3.8	514
8	Dual-horizon peridynamics: A stable solution to varying horizons. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 318, 762-782.	6.6	502
9	Isogeometric analysis: An overview and computer implementation aspects. <i>Mathematics and Computers in Simulation</i> , 2015, 117, 89-116.	4.4	478
10	A computational library for multiscale modeling of material failure. <i>Computational Mechanics</i> , 2014, 53, 1047-1071.	4.0	437
11	Artificial Neural Network Methods for the Solution of Second Order Boundary Value Problems. <i>Computers, Materials and Continua</i> , 2019, 59, 345-359.	1.9	437
12	A meshfree thin shell method for non-linear dynamic fracture. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 72, 524-548.	2.8	429
13	Stable particle methods based on Lagrangian kernels. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 1035-1063.	6.6	400
14	Immersed particle method for fluid-structure interaction. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 81, 48-71.	2.8	340
15	Rotation free isogeometric thin shell analysis using PHT-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 3410-3424.	6.6	335
16	Molecular dynamics simulations of single-layer molybdenum disulphide (MoS <sub>2</sub> ): Stillinger-Weber parametrization, mechanical properties, and thermal conductivity. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	331
17	State of the Art of Machine Learning Models in Energy Systems, a Systematic Review. <i>Energies</i> , 2019, 12, 1301.	3.1	319
18	Stochastic analysis of the fracture toughness of polymeric nanoparticle composites using polynomial chaos expansions. <i>International Journal of Fracture</i> , 2017, 206, 215-227.	2.2	315

#	ARTICLE	IF	CITATIONS
19	Three-dimensional crack initiation, propagation, branching and junction in non-linear materials by an extended meshfree method without asymptotic enrichment. <i>Engineering Fracture Mechanics</i> , 2008, 75, 943-960.	4.3	314
20	A three-dimensional meshfree method for continuous multiple-crack initiation, propagation and junction in statics and dynamics. <i>Computational Mechanics</i> , 2007, 40, 473-495.	4.0	312
21	On three-dimensional modelling of crack growth using partition of unity methods. <i>Computers and Structures</i> , 2010, 88, 1391-1411.	4.4	311
22	Transfer learning enhanced physics informed neural network for phase-field modeling of fracture. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 106, 102447.	4.7	308
23	Exceptional piezoelectricity, high thermal conductivity and stiffness and promising photocatalysis in two-dimensional MoSi <sub>2</sub> N <sub>4</sub> family confirmed by first-principles. <i>Nano Energy</i> , 2021, 82, 105716.	16.0	303
24	An extended isogeometric thin shell analysis based on Kirchhoff's Love theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 265-291.	6.6	301
25	A two-dimensional Isogeometric Boundary Element Method for elastostatic analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 209-212, 87-100.	6.6	295
26	A Deep Collocation Method for the Bending Analysis of Kirchhoff Plate. <i>Computers, Materials and Continua</i> , 2019, 59, 433-456.	1.9	295
27	A level-set based IGA formulation for topology optimization of flexoelectric materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 313, 239-258.	6.6	286
28	A smoothed finite element method for plate analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 1184-1203.	6.6	282
29	NURBS-based finite element analysis of functionally graded plates: Static bending, vibration, buckling and flutter. <i>Composite Structures</i> , 2013, 99, 309-326.	5.8	277
30	A Meshfree Method based on the Local Partition of Unity for Cohesive Cracks. <i>Computational Mechanics</i> , 2007, 39, 743-760.	4.0	272
31	A geometrically non-linear three-dimensional cohesive crack method for reinforced concrete structures. <i>Engineering Fracture Mechanics</i> , 2008, 75, 4740-4758.	4.3	272
32	Phase-field modeling of fracture in linear thin shells. <i>Theoretical and Applied Fracture Mechanics</i> , 2014, 69, 102-109.	4.7	269
33	Phase field modeling of quasi-static and dynamic crack propagation: COMSOL implementation and case studies. <i>Advances in Engineering Software</i> , 2018, 122, 31-49.	3.8	267
34	Isogeometric analysis of laminated composite and sandwich plates using a new inverse trigonometric shear deformation theory. <i>European Journal of Mechanics, A/Solids</i> , 2014, 43, 89-108.	3.7	260
35	Phase field modelling of crack propagation, branching and coalescence in rocks. <i>Theoretical and Applied Fracture Mechanics</i> , 2018, 96, 174-192.	4.7	260
36	A phase-field modeling approach of fracture propagation in poroelastic media. <i>Engineering Geology</i> , 2018, 240, 189-203.	6.3	259

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37	Static, free vibration, and buckling analysis of laminated composite Reissner–Mindlin plates using NURBS-based isogeometric approach. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 91, 571-603.	2.8	257
38	Damage and fracture algorithm using the screened Poisson equation and local remeshing. <i>Engineering Fracture Mechanics</i> , 2016, 158, 116-143.	4.3	257
39	Strain smoothing in FEM and XFEM. <i>Computers and Structures</i> , 2010, 88, 1419-1443.	4.4	255
40	Fracture properties prediction of clay/epoxy nanocomposites with interphase zones using a phase field model. <i>Engineering Fracture Mechanics</i> , 2018, 188, 287-299.	4.3	249
41	Application of silicene, germanene and stanene for Na or Li ion storage: A theoretical investigation. <i>Electrochimica Acta</i> , 2016, 213, 865-870.	5.2	245
42	Nonlinear bending of functionally graded porous micro/nano-beams reinforced with graphene platelets based upon nonlocal strain gradient theory. <i>Composite Structures</i> , 2018, 186, 68-78.	5.8	233
43	Phantom-node method for shell models with arbitrary cracks. <i>Computers and Structures</i> , 2012, 92-93, 242-256.	4.4	232
44	Adaptivity for structured meshfree particle methods in 2D and 3D. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 63, 1559-1582.	2.8	230
45	Finite strain fracture of plates and shells with configurational forces and edge rotations. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 94, 1099-1122.	2.8	228
46	Phase-field analysis of finite-strain plates and shells including element subdivision. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 312, 322-350.	6.6	223
47	A multi-material level set-based topology optimization of flexoelectric composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 332, 47-62.	6.6	223
48	Isogeometric analysis using polynomial splines over hierarchical T-meshes for two-dimensional elastic solids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 1892-1908.	6.6	221
49	COVID-19 Outbreak Prediction with Machine Learning. <i>Algorithms</i> , 2020, 13, 249.	2.1	218
50	Borophene as an anode material for Ca, Mg, Na or Li ion storage: A first-principle study. <i>Journal of Power Sources</i> , 2016, 329, 456-461.	7.8	211
51	A new crack tip element for the phantom-node method with arbitrary cohesive cracks. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 75, 577-599.	2.8	210
52	Isogeometric analysis of large-deformation thin shells using RHT-splines for multiple-patch coupling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 316, 1157-1178.	6.6	210
53	A Survey of Deep Learning Techniques: Application in Wind and Solar Energy Resources. <i>IEEE Access</i> , 2019, 7, 164650-164666.	4.2	210
54	Element-wise fracture algorithm based on rotation of edges. <i>Engineering Fracture Mechanics</i> , 2013, 110, 113-137.	4.3	209

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55	Simulation of high velocity concrete fragmentation using SPH/MLSPH. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 56, 1421-1444.	2.8	208
56	Efficient coarse graining in multiscale modeling of fracture. <i>Theoretical and Applied Fracture Mechanics</i> , 2014, 69, 126-143.	4.7	205
57	Abaqus implementation of phase-field model for brittle fracture. <i>Computational Materials Science</i> , 2015, 96, 472-484.	3.0	203
58	Phase-field modeling of fluid-driven dynamic cracking in porous media. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 350, 169-198.	6.6	202
59	A smoothed finite element method for shell analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 198, 165-177.	6.6	199
60	An adaptive multiscale method for quasi-static crack growth. <i>Computational Mechanics</i> , 2014, 53, 1129-1148.	4.0	197
61	An explicit phase field method for brittle dynamic fracture. <i>Computers and Structures</i> , 2019, 217, 45-56.	4.4	197
62	Detection of material interfaces using a regularized level set method in piezoelectric structures. <i>Inverse Problems in Science and Engineering</i> , 2016, 24, 153-176.	1.2	196
63	A simplified mesh-free method for shear bands with cohesive surfaces. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 69, 993-1021.	2.8	195
64	Extended finite element method with edge-based strain smoothing (ESm-XFEM) for linear elastic crack growth. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 209-212, 250-265.	6.6	193
65	Application of Particle Methods to Static Fracture of Reinforced Concrete Structures. <i>International Journal of Fracture</i> , 2006, 137, 19-49.	2.2	192
66	T-spline based XIGA for fracture analysis of orthotropic media. <i>Computers and Structures</i> , 2015, 147, 138-146.	4.4	191
67	Deep autoencoder based energy method for the bending, vibration, and buckling analysis of Kirchhoff plates with transfer learning. <i>European Journal of Mechanics, A/Solids</i> , 2021, 87, 104225.	3.7	188
68	Uncertainty quantification for multiscale modeling of polymer nanocomposites with correlated parameters. <i>Composites Part B: Engineering</i> , 2015, 68, 446-464.	12.0	187
69	Size-dependent free flexural vibration behavior of functionally graded nanoplates. <i>Computational Materials Science</i> , 2012, 65, 74-80.	3.0	186
70	Concurrent multiscale modeling of three dimensional crack and dislocation propagation. <i>Advances in Engineering Software</i> , 2015, 80, 82-92.	3.8	180
71	A Nonlocal Operator Method for Partial Differential Equations with Application to Electromagnetic Waveguide Problem. <i>Computers, Materials and Continua</i> , 2019, 59, 31-55.	1.9	179
72	An adaptive singular ES-FEM for mechanics problems with singular field of arbitrary order. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 253, 252-273.	6.6	178

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73	Phase field modeling of brittle compressive-shear fractures in rock-like materials: A new driving force and a hybrid formulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 355, 729-752.	6.6	172
74	Coupling of mesh-free methods with finite elements: basic concepts and test results. <i>Communications in Numerical Methods in Engineering</i> , 2006, 22, 1031-1065.	1.3	171
75	First-Principles Multiscale Modeling of Mechanical Properties in Graphene/Borophene Heterostructures Empowered by Machine-Learning Interatomic Potentials. <i>Advanced Materials</i> , 2021, 33, e2102807.	21.0	171
76	Extended meshfree methods without branch enrichment for cohesive cracks. <i>Computational Mechanics</i> , 2007, 40, 367-382.	4.0	169
77	XLME interpolants, a seamless bridge between XFEM and enriched meshless methods. <i>Computational Mechanics</i> , 2014, 53, 45-57.	4.0	168
78	Nonlocal strain gradient plate model for nonlinear large-amplitude vibrations of functionally graded porous micro/nano-plates reinforced with GPLs. <i>Composite Structures</i> , 2018, 198, 51-62.	5.8	163
79	A peridynamics formulation for quasi-static fracture and contact in rock. <i>Engineering Geology</i> , 2017, 225, 42-48.	6.3	159
80	Sensitivity and uncertainty analysis for flexoelectric nanostructures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 337, 95-109.	6.6	159
81	First-principles investigation of mechanical properties of silicene, germanene and stanene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 87, 228-232.	2.7	158
82	Finite strain fracture of 2D problems with injected anisotropic softening elements. <i>Theoretical and Applied Fracture Mechanics</i> , 2014, 72, 50-63.	4.7	155
83	Modelling dynamic failure of concrete with meshfree methods. <i>International Journal of Impact Engineering</i> , 2006, 32, 1878-1897.	5.0	151
84	Mechanical responses of borophene sheets: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27405-27413.	2.8	149
85	Effective 2D and 3D crack propagation with local mesh refinement and the screened Poisson equation. <i>Engineering Fracture Mechanics</i> , 2018, 189, 339-360.	4.3	149
86	A node-based smoothed finite element method (NS-FEM) for upper bound solution to visco-elastoplastic analyses of solids using triangular and tetrahedral meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 3005-3027.	6.6	147
87	A numerical model for reinforced concrete structures. <i>International Journal of Solids and Structures</i> , 2005, 42, 1327-1354.	2.7	144
88	Simulations of instability in dynamic fracture by the cracking particles method. <i>Engineering Fracture Mechanics</i> , 2009, 76, 730-741.	4.3	143
89	On the performance of strain smoothing for quadratic and enriched finite element approximations (XFEM/GFEM/PUFEM). <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 637-666.	2.8	142
90	A unified framework for stochastic predictions of mechanical properties of polymeric nanocomposites. <i>Computational Materials Science</i> , 2015, 96, 520-535.	3.0	142

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91	Discontinuous modelling of shear bands using adaptive meshfree methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 641-658.	6.6	141
92	Elastic bending modulus of single-layer molybdenum disulfide (MoS <sub>2</sub> ): finite thickness effect. <i>Nanotechnology</i> , 2013, 24, 435705.	2.6	141
93	A nonlocal operator method for solving partial differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 358, 112621.	6.6	139
94	A non-ordinary state-based peridynamics formulation for thermoplastic fracture. <i>International Journal of Impact Engineering</i> , 2016, 87, 83-94.	5.0	133
95	Graphene or h-BN paraffin composite structures for the thermal management of Li-ion batteries: A multiscale investigation. <i>Applied Energy</i> , 2017, 202, 323-334.	10.1	133
96	Computational Methods for Fracture in Brittle and Quasi-Brittle Solids: State-of-the-Art Review and Future Perspectives. <i>ISRN Applied Mathematics</i> , 2013, 2013, 1-38.	0.5	132
97	Stochastic predictions of interfacial characteristic of polymeric nanocomposites (PNCs). <i>Composites Part B: Engineering</i> , 2014, 59, 80-95.	12.0	132
98	A node-based smoothed finite element method with stabilized discrete shear gap technique for analysis of Reissner-Mindlin plates. <i>Computational Mechanics</i> , 2010, 46, 679-701.	4.0	128
99	Natural frequencies of cracked functionally graded material plates by the extended finite element method. <i>Composite Structures</i> , 2011, 93, 3082-3092.	5.8	128
100	A NURBS-based inverse analysis for reconstruction of nonlinear deformations of thin shell structures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 331, 427-455.	6.6	127
101	Outstanding strength, optical characteristics and thermal conductivity of graphene-like BC <sub>3</sub> and BC <sub>6</sub> N semiconductors. <i>Carbon</i> , 2019, 149, 733-742.	10.3	126
102	Steiner-point free edge cutting of tetrahedral meshes with applications in fracture. <i>Finite Elements in Analysis and Design</i> , 2017, 132, 27-41.	3.2	125
103	Machine-learning interatomic potentials enable first-principles multiscale modeling of lattice thermal conductivity in graphene/borophene heterostructures. <i>Materials Horizons</i> , 2020, 7, 2359-2367.	12.2	124
104	Flat borophene films as anode materials for Mg, Na or Li-ion batteries with ultra high capacities: A first-principles study. <i>Applied Materials Today</i> , 2017, 8, 60-67.	4.3	122
105	Extended isogeometric analysis for dynamic fracture in multiphase piezoelectric/piezomagnetic composites. <i>Mechanics of Materials</i> , 2016, 97, 135-163.	3.2	120
106	Stochastic predictions of bulk properties of amorphous polyethylene based on molecular dynamics simulations. <i>Mechanics of Materials</i> , 2014, 68, 70-84.	3.2	118
107	Thermal conductivity and mechanical properties of nitrogenated holey graphene. <i>Carbon</i> , 2016, 106, 1-8.	10.3	118
108	Isogeometric Analysis of Laminated Composite Plates Using the Higher-Order Shear Deformation Theory. <i>Mechanics of Advanced Materials and Structures</i> , 2015, 22, 451-469.	2.6	117

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109	An efficient optimization approach for designing machine learning models based on genetic algorithm. <i>Neural Computing and Applications</i> , 2021, 33, 1923-1933.	5.6	116
110	An h-adaptive thermo-mechanical phase field model for fracture. <i>Finite Elements in Analysis and Design</i> , 2018, 138, 31-47.	3.2	115
111	A deep energy method for finite deformation hyperelasticity. <i>European Journal of Mechanics, A/Solids</i> , 2020, 80, 103874.	3.7	115
112	Mechanical properties and thermal conductivity of graphitic carbon nitride: A molecular dynamics study. <i>Computational Materials Science</i> , 2015, 99, 285-289.	3.0	112
113	Three-dimensional mesoscale computational modeling of soil-rock mixtures with concave particles. <i>Engineering Geology</i> , 2020, 277, 105802.	6.3	110
114	Borophene hydride: a stiff 2D material with high thermal conductivity and attractive optical and electronic properties. <i>Nanoscale</i> , 2018, 10, 3759-3768.	5.6	109
115	Accelerating first-principles estimation of thermal conductivity by machine-learning interatomic potentials: A MTP/ShengBTE solution. <i>Computer Physics Communications</i> , 2021, 258, 107583.	7.5	108
116	A review on nanomechanical resonators and their applications in sensors and molecular transportation. <i>Applied Physics Reviews</i> , 2015, 2, .	11.3	106
117	Peridynamic modeling of composite laminates under explosive loading. <i>Composite Structures</i> , 2016, 144, 14-23.	5.8	106
118	Modelling hydraulic fractures in porous media using flow cohesive interface elements. <i>Engineering Geology</i> , 2017, 225, 68-82.	6.3	105
119	Fluid-structure interaction in lower airways of CT-based lung geometries. <i>International Journal for Numerical Methods in Fluids</i> , 2008, 57, 653-675.	1.6	104
120	Modelling heat conduction in polycrystalline hexagonal boron-nitride films. <i>Scientific Reports</i> , 2015, 5, 13228.	3.3	104
121	Boron-graphdiyne: a superstretchable semiconductor with low thermal conductivity and ultrahigh capacity for Li, Na and Ca ion storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11022-11036.	10.3	104
122	A partitioned model order reduction approach to rationalise computational expenses in nonlinear fracture mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 256, 169-188.	6.6	101
123	Multiscale modeling of heat conduction in graphene laminates. <i>Carbon</i> , 2015, 85, 1-7.	10.3	101
124	Enhancement in hydrogen storage capacities of light metal functionalized Boron-Graphdiyne nanosheets. <i>Carbon</i> , 2019, 147, 199-205.	10.3	100
125	A theoretical analysis of cohesive energy between carbon nanotubes, graphene and substrates. <i>Carbon</i> , 2013, 57, 108-119.	10.3	99
126	Application of ANNs, ANFIS and RSM to estimating and optimizing the parameters that affect the yield and cost of biodiesel production. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2018, 12, 611-624.	3.1	98

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127	An isogeometric collocation method using superconvergent points. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 1073-1097.	6.6	97
128	Exploring phononic properties of two-dimensional materials using machine learning interatomic potentials. <i>Applied Materials Today</i> , 2020, 20, 100685.	4.3	96
129	Computation of limit and shakedown loads using a node-based smoothed finite element method. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 287-310.	2.8	95
130	Load transfer of graphene/carbon nanotube/polyethylene hybrid nanocomposite by molecular dynamics simulation. <i>Composites Part B: Engineering</i> , 2014, 63, 27-33.	12.0	95
131	Parametric deep energy approach for elasticity accounting for strain gradient effects. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 386, 114096.	6.6	95
132	Uncertainties propagation in metamodel-based probabilistic optimization of CNT/polymer composite structure using stochastic multi-scale modeling. <i>Computational Materials Science</i> , 2014, 85, 295-305.	3.0	94
133	Dynamics of two-dimensional functionally graded tapered Timoshenko nanobeam in thermal environment using nonlocal strain gradient theory. <i>Composites Part B: Engineering</i> , 2020, 182, 107622.	12.0	94
134	Topology optimization of flexoelectric structures. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 105, 217-234.	4.8	93
135	Numerical analysis of high speed concrete fragmentation using a meshfree Lagrangian method. <i>Engineering Fracture Mechanics</i> , 2004, 71, 547-556.	4.3	92
136	A new approach for modelling slip lines in geological materials with cohesive models. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2006, 30, 1159-1172.	3.3	91
137	Detection of flaws in piezoelectric structures using extended FEM. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 96, 373-389.	2.8	90
138	Uncertainty quantification of the fracture properties of polymeric nanocomposites based on phase field modeling. <i>Composite Structures</i> , 2015, 133, 1177-1190.	5.8	90
139	An isogeometric symmetric Galerkin boundary element method for two-dimensional crack problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 306, 252-275.	6.6	90
140	A unified nonlocal strain gradient plate model for nonlinear axial instability of functionally graded porous micro/nano-plates reinforced with graphene platelets. <i>Materials Research Express</i> , 2018, 5, 045048.	1.6	89
141	Homogenization of sandwich structures. <i>International Journal for Numerical Methods in Engineering</i> , 2004, 61, 1009-1027.	2.8	88
142	Predicting the fracture toughness of PNCs: A stochastic approach based on ANN and ANFIS. <i>Computational Materials Science</i> , 2015, 102, 304-313.	3.0	88
143	Modelling the dynamic failure of brittle rocks using a hybrid continuum-discrete element method with a mixed-mode cohesive fracture model. <i>International Journal of Impact Engineering</i> , 2016, 87, 146-155.	5.0	87
144	A cell-based smoothed finite element method for kinematic limit analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 83, 1651-1674.	2.8	86

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145	A Phantom-Node Method with Edge-Based Strain Smoothing for Linear Elastic Fracture Mechanics. <i>Journal of Applied Mathematics</i> , 2013, 2013, 1-12.	0.9	86
146	Constructing IGA-suitable planar parameterization from complex CAD boundary by domain partition and global/local optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 328, 175-200.	6.6	86
147	A higher order nonlocal operator method for solving partial differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 367, 113132.	6.6	84
148	Application of two-dimensional materials as anodes for rechargeable metal-ion batteries: A comprehensive perspective from density functional theory simulations. <i>Energy Storage Materials</i> , 2021, 35, 203-282.	18.0	84
149	Application of nonlocal strain gradient theory to size dependent bending analysis of a sandwich porous nanoplate integrated with piezomagnetic face-sheets. <i>Composites Part B: Engineering</i> , 2019, 168, 320-333.	12.0	83
150	Amorphized graphene: A stiff material with low thermal conductivity. <i>Carbon</i> , 2016, 103, 318-326.	10.3	82
151	N-graphdiyne two-dimensional nanomaterials: Semiconductors with low thermal conductivity and high stretchability. <i>Carbon</i> , 2018, 137, 57-67.	10.3	82
152	A Stillinger-Weber potential for single-layered black phosphorus, and the importance of cross-pucker interactions for a negative Poisson's ratio and edge stress-induced bending. <i>Nanoscale</i> , 2015, 7, 6059-6068.	5.6	80
153	Initially rigid cohesive laws and fracture based on edge rotations. <i>Computational Mechanics</i> , 2013, 52, 931-947.	4.0	79
154	The mechanical properties of three types of carbon allotropes. <i>Nanotechnology</i> , 2013, 24, 095702.	2.6	79
155	A semi-concurrent multiscale approach for modeling damage in nanocomposites. <i>Theoretical and Applied Fracture Mechanics</i> , 2014, 74, 30-38.	4.7	79
156	Effect of various characteristics of graphene nanoplatelets on thermal buckling behavior of FGRC micro plate based on MCST. <i>European Journal of Mechanics, A/Solids</i> , 2019, 77, 103802.	3.7	78
157	MOLECULAR DYNAMICS/XFEM COUPLING BY A THREE-DIMENSIONAL EXTENDED BRIDGING DOMAIN WITH APPLICATIONS TO DYNAMIC BRITTLE FRACTURE. <i>International Journal for Multiscale Computational Engineering</i> , 2013, 11, 527-541.	1.2	77
158	Optimal fiber content and distribution in fiber-reinforced solids using a reliability and NURBS based sequential optimization approach. <i>Structural and Multidisciplinary Optimization</i> , 2015, 51, 99-112.	3.5	76
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