

Timon Rabczuk

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

650
papers

32,960
citations

98
h-index

157
g-index

673
ext. papers

39,229
ext. citations

4.2
avg, IF

8.3
L-index

#	Paper	IF	Citations
650	Cracking particles: a simplified meshfree method for arbitrary evolving cracks. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 61, 2316-2343	2.4	964
649	Meshless methods: A review and computer implementation aspects. <i>Mathematics and Computers in Simulation</i> , 2008 , 79, 763-813	3.3	778
648	A three-dimensional large deformation meshfree method for arbitrary evolving cracks. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007 , 196, 2777-2799	5.7	731
647	A simple and robust three-dimensional cracking-particle method without enrichment. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010 , 199, 2437-2455	5.7	547
646	Dual-horizon peridynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2016 , 108, 1451-1476	3.9	399
645	A software framework for probabilistic sensitivity analysis for computationally expensive models. <i>Advances in Engineering Software</i> , 2016 , 100, 19-31	3.6	397
644	A meshfree thin shell method for non-linear dynamic fracture. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 72, 524-548	2.4	375
643	Dual-horizon peridynamics: A stable solution to varying horizons. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 318, 762-782	5.7	361
642	Stable particle methods based on Lagrangian kernels. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 1035-1063	5.7	347
641	Isogeometric analysis: An overview and computer implementation aspects. <i>Mathematics and Computers in Simulation</i> , 2015 , 117, 89-116	3.3	328
640	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	5.7	319
639	A computational library for multiscale modeling of material failure. <i>Computational Mechanics</i> , 2014 , 53, 1047-1071	4	307
638	Rotation free isogeometric thin shell analysis using PHT-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011 , 200, 3410-3424	5.7	302
637	Immersed particle method for fluid-structure interaction. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 81, n/a-n/a	2.4	290
636	Artificial Neural Network Methods for the Solution of Second Order Boundary Value Problems. <i>Computers, Materials and Continua</i> , 2019 , 59, 345-359	3.9	278
635	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	4.2	276
634	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	275

633	On three-dimensional modelling of crack growth using partition of unity methods. <i>Computers and Structures</i> , 2010 , 88, 1391-1411	4.5	270
632	Stochastic analysis of the fracture toughness of polymeric nanoparticle composites using polynomial chaos expansions. <i>International Journal of Fracture</i> , 2017 , 206, 215-227	2.3	265
631	Molecular dynamics simulations of single-layer molybdenum disulphide (MoS ₂): Stillinger-Weber parametrization, mechanical properties, and thermal conductivity. <i>Journal of Applied Physics</i> , 2013 , 114, 064307	2.5	263
630	An extended isogeometric thin shell analysis based on Kirchhoff-Love theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 284, 265-291	5.7	260
629	A smoothed finite element method for plate analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 1184-1203	5.7	247
628	A Meshfree Method based on the Local Partition of Unity for Cohesive Cracks. <i>Computational Mechanics</i> , 2007 , 39, 743-760	4	239
627	A two-dimensional Isogeometric Boundary Element Method for elastostatic analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012 , 209-212, 87-100	5.7	236
626	A geometrically non-linear three-dimensional cohesive crack method for reinforced concrete structures. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 4740-4758	4.2	235
625	Phase-field modeling of fracture in linear thin shells. <i>Theoretical and Applied Fracture Mechanics</i> , 2014 , 69, 102-109	3.7	230
624	Strain smoothing in FEM and XFEM. <i>Computers and Structures</i> , 2010 , 88, 1419-1443	4.5	229
623	NURBS-based finite element analysis of functionally graded plates: Static bending, vibration, buckling and flutter. <i>Composite Structures</i> , 2013 , 99, 309-326	5.3	228
622	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	2.4	218
621	Damage and fracture algorithm using the screened Poisson equation and local remeshing. <i>Engineering Fracture Mechanics</i> , 2016 , 158, 116-143	4.2	214
620	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	2.4	213
619	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	211
618	Adaptivity for structured meshfree particle methods in 2D and 3D. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 63, 1559-1582	2.4	211
617	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	5.7	208
616	Phantom-node method for shell models with arbitrary cracks. <i>Computers and Structures</i> , 2012 , 92-93, 242-256	4.5	207

615	A Deep Collocation Method for the Bending Analysis of Kirchhoff Plate. <i>Computers, Materials and Continua</i> , 2019 , 59, 433-456	3.9	199
614	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	5.7	193
613	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	5.3	187
612	Element-wise fracture algorithm based on rotation of edges. <i>Engineering Fracture Mechanics</i> , 2013 , 110, 113-137	4.2	186
611	Phase field modelling of crack propagation, branching and coalescence in rocks. <i>Theoretical and Applied Fracture Mechanics</i> , 2018 , 96, 174-192	3.7	182
610	A phase-field modeling approach of fracture propagation in poroelastic media. <i>Engineering Geology</i> , 2018 , 240, 189-203	6	181
609	Fracture properties prediction of clay/epoxy nanocomposites with interphase zones using a phase field model. <i>Engineering Fracture Mechanics</i> , 2018 , 188, 287-299	4.2	180
608	Efficient coarse graining in multiscale modeling of fracture. <i>Theoretical and Applied Fracture Mechanics</i> , 2014 , 69, 126-143	3.7	180
607	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	5.7	179
606	A smoothed finite element method for shell analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 198, 165-177	5.7	179
605	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	5.7	178
604	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	2.4	176
603	Simulation of high velocity concrete fragmentation using SPH/MLSPH. <i>International Journal for Numerical Methods in Engineering</i> , 2003 , 56, 1421-1444	2.4	174
602	A simplified mesh-free method for shear bands with cohesive surfaces. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 69, 993-1021	2.4	171
601	Application of Particle Methods to Static Fracture of Reinforced Concrete Structures. <i>International Journal of Fracture</i> , 2006 , 137, 19-49	2.3	171
600	Application of silicene, germanene and stanene for Na or Li ion storage: A theoretical investigation. <i>Electrochimica Acta</i> , 2016 , 213, 865-870	6.7	171
599	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	3.6	169
598	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	5.7	168

597	An adaptive multiscale method for quasi-static crack growth. <i>Computational Mechanics</i> , 2014 , 53, 1129-1148	148	165
596	A multi-material level set-based topology optimization of flexoelectric composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 332, 47-62	5-7	159
595	T-spline based XIGA for fracture analysis of orthotropic media. <i>Computers and Structures</i> , 2015 , 147, 138-146	146	157
594	State of the Art of Machine Learning Models in Energy Systems, a Systematic Review. <i>Energies</i> , 2019 , 12, 1301	3-1	156
593	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	1-3	155
592	Concurrent multiscale modeling of three dimensional crack and dislocation propagation. <i>Advances in Engineering Software</i> , 2015 , 80, 82-92	3-6	155
591	Uncertainty quantification for multiscale modeling of polymer nanocomposites with correlated parameters. <i>Composites Part B: Engineering</i> , 2015 , 68, 446-464	10	154
590	Size-dependent free flexural vibration behavior of functionally graded nanoplates. <i>Computational Materials Science</i> , 2012 , 65, 74-80	3-2	154
589	XLME interpolants, a seamless bridge between XFEM and enriched meshless methods. <i>Computational Mechanics</i> , 2014 , 53, 45-57	4	150
588	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	5-7	150
587	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		149
586	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	8-9	147
585	Extended meshfree methods without branch enrichment for cohesive cracks. <i>Computational Mechanics</i> , 2007 , 40, 367-382	4	144
584	Finite strain fracture of 2D problems with injected anisotropic softening elements. <i>Theoretical and Applied Fracture Mechanics</i> , 2014 , 72, 50-63	3-7	142
583	Abaqus implementation of phase-field model for brittle fracture. <i>Computational Materials Science</i> , 2015 , 96, 472-484	3-2	138
582	Sensitivity and uncertainty analysis for flexoelectric nanostructures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 337, 95-109	5-7	136
581	Phase-field modeling of fluid-driven dynamic cracking in porous media. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 350, 169-198	5-7	133
580	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	5-3	130

579	Modelling dynamic failure of concrete with meshfree methods. <i>International Journal of Impact Engineering</i> , 2006 , 32, 1878-1897	4	128
578	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	5.7	127
577	Discontinuous modelling of shear bands using adaptive meshfree methods. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 199, 641-658	5.7	126
576	Effective 2D and 3D crack propagation with local mesh refinement and the screened Poisson equation. <i>Engineering Fracture Mechanics</i> , 2018 , 189, 339-360	4.2	126
575	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	2.4	120
574	Simulations of instability in dynamic fracture by the cracking particles method. <i>Engineering Fracture Mechanics</i> , 2009 , 76, 730-741	4.2	120
573	An explicit phase field method for brittle dynamic fracture. <i>Computers and Structures</i> , 2019 , 217, 45-56	4.5	119
572	First-principles investigation of mechanical properties of silicene, germanene and stanene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017 , 87, 228-232	3	118
571	Steiner-point free edge cutting of tetrahedral meshes with applications in fracture. <i>Finite Elements in Analysis and Design</i> , 2017 , 132, 27-41	2.2	117
570	A unified framework for stochastic predictions of mechanical properties of polymeric nanocomposites. <i>Computational Materials Science</i> , 2015 , 96, 520-535	3.2	116
569	Transfer learning enhanced physics informed neural network for phase-field modeling of fracture. <i>Theoretical and Applied Fracture Mechanics</i> , 2020 , 106, 102447	3.7	116
568	A Survey of Deep Learning Techniques: Application in Wind and Solar Energy Resources. <i>IEEE Access</i> , 2019 , 7, 164650-164666	3.5	115
567	A Nonlocal Operator Method for Partial Differential Equations with Application to Electromagnetic Waveguide Problem. <i>Computers, Materials and Continua</i> , 2019 , 59, 31-55	3.9	115
566	COVID-19 Outbreak Prediction with Machine Learning. <i>Algorithms</i> , 2020 , 13, 249	1.8	112
565	Mechanical responses of borophene sheets: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 27405-27413	3.6	111
564	Stochastic predictions of interfacial characteristic of polymeric nanocomposites (PNCs). <i>Composites Part B: Engineering</i> , 2014 , 59, 80-95	10	110
563	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	110
562	A numerical model for reinforced concrete structures. <i>International Journal of Solids and Structures</i> , 2005 , 42, 1327-1354	3.1	110

561	Elastic bending modulus of single-layer molybdenum disulfide (MoS ₂): finite thickness effect. <i>Nanotechnology</i> , 2013 , 24, 435705	3.4	109
560	Natural frequencies of cracked functionally graded material plates by the extended finite element method. <i>Composite Structures</i> , 2011 , 93, 3082-3092	5.3	106
559	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	10.7	105
558	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		105
557	A peridynamics formulation for quasi-static fracture and contact in rock. <i>Engineering Geology</i> , 2017 , 225, 42-48	6	103
556	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	5.7	102
555	Extended isogeometric analysis for dynamic fracture in multiphase piezoelectric/piezomagnetic composites. <i>Mechanics of Materials</i> , 2016 , 97, 135-163	3.3	101
554	Thermal conductivity and mechanical properties of nitrogenated holey graphene. <i>Carbon</i> , 2016 , 106, 1-8	10.4	101
553	A non-ordinary state-based peridynamics formulation for thermoplastic fracture. <i>International Journal of Impact Engineering</i> , 2016 , 87, 83-94	4	100
552	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	1.8	98
551	Outstanding strength, optical characteristics and thermal conductivity of graphene-like BC ₃ and BC ₆ N semiconductors. <i>Carbon</i> , 2019 , 149, 733-742	10.4	93
550	Stochastic predictions of bulk properties of amorphous polyethylene based on molecular dynamics simulations. <i>Mechanics of Materials</i> , 2014 , 68, 70-84	3.3	92
549	Modelling heat conduction in polycrystalline hexagonal boron-nitride films. <i>Scientific Reports</i> , 2015 , 5, 13228	4.9	90
548	Multiscale modeling of heat conduction in graphene laminates. <i>Carbon</i> , 2015 , 85, 1-7	10.4	88
547	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	5.7	88
546	Mechanical properties and thermal conductivity of graphitic carbon nitride: A molecular dynamics study. <i>Computational Materials Science</i> , 2015 , 99, 285-289	3.2	87
545	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	6.6	86
544	Numerical analysis of high speed concrete fragmentation using a meshfree Lagrangian method. <i>Engineering Fracture Mechanics</i> , 2004 , 71, 547-556	4.2	86

543	Load transfer of graphene/carbon nanotube/polyethylene hybrid nanocomposite by molecular dynamics simulation. <i>Composites Part B: Engineering</i> , 2014 , 63, 27-33	10	85
542	A theoretical analysis of cohesive energy between carbon nanotubes, graphene and substrates. <i>Carbon</i> , 2013 , 57, 108-119	10.4	84
541	Borophene hydride: a stiff 2D material with high thermal conductivity and attractive optical and electronic properties. <i>Nanoscale</i> , 2018 , 10, 3759-3768	7.7	83
540	Fluid-structure interaction in lower airways of CT-based lung geometries. <i>International Journal for Numerical Methods in Fluids</i> , 2008 , 57, 653-675	1.9	83
539	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	4	81
538	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	13	80
537	Three-dimensional mesoscale computational modeling of soil-rock mixtures with concave particles. <i>Engineering Geology</i> , 2020 , 277, 105802	6	80
536	Modelling hydraulic fractures in porous media using flow cohesive interface elements. <i>Engineering Geology</i> , 2017 , 225, 68-82	6	79
535	An isogeometric collocation method using superconvergent points. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 284, 1073-1097	5.7	79
534	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	1.7	79
533	Homogenization of sandwich structures. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 61, 1009-1027	2.4	79
532	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	3.2	78
531	Detection of flaws in piezoelectric structures using extended FEM. <i>International Journal for Numerical Methods in Engineering</i> , 2013 , 96, 373-389	2.4	78
530	Uncertainty quantification of the fracture properties of polymeric nanocomposites based on phase field modeling. <i>Composite Structures</i> , 2015 , 133, 1177-1190	5.3	77
529	A Phantom-Node Method with Edge-Based Strain Smoothing for Linear Elastic Fracture Mechanics. <i>Journal of Applied Mathematics</i> , 2013 , 2013, 1-12	1.1	77
528	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	2.4	76
527	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	5.7	76
526	A review on nanomechanical resonators and their applications in sensors and molecular transportation. <i>Applied Physics Reviews</i> , 2015 , 2, 021301	17.3	75

525	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	5.7	75
524	Initially rigid cohesive laws and fracture based on edge rotations. <i>Computational Mechanics</i> , 2013 , 52, 931-947	4	74
523	A cell-based smoothed finite element method for kinematic limit analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2010 , 83, 1651-1674	2.4	73
522	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	4.5	72
521	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	2.4	72
520	Topology optimization of flexoelectric structures. <i>Journal of the Mechanics and Physics of Solids</i> , 2017 , 105, 217-234	5	71
519	A nonlocal operator method for solving partial differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 358, 112621	5.7	71
518	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	4.5	70
517	Amorphized graphene: A stiff material with low thermal conductivity. <i>Carbon</i> , 2016 , 103, 318-326	10.4	70
516	The mechanical properties of three types of carbon allotropes. <i>Nanotechnology</i> , 2013 , 24, 095702	3.4	70
515	Exceptional piezoelectricity, high thermal conductivity and stiffness and promising photocatalysis in two-dimensional MoSi ₂ N ₄ family confirmed by first-principles. <i>Nano Energy</i> , 2021 , 82, 105716	17.1	70
514	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, 6059-68	7.7	69
513	A semi-concurrent multiscale approach for modeling damage in nanocomposites. <i>Theoretical and Applied Fracture Mechanics</i> , 2014 , 74, 30-38	3.7	69
512	Peridynamic modeling of composite laminates under explosive loading. <i>Composite Structures</i> , 2016 , 144, 14-23	5.3	68
511	An h-adaptive thermo-mechanical phase field model for fracture. <i>Finite Elements in Analysis and Design</i> , 2018 , 138, 31-47	2.2	67
510	N-graphdiyne two-dimensional nanomaterials: Semiconductors with low thermal conductivity and high stretchability. <i>Carbon</i> , 2018 , 137, 57-67	10.4	67
509	Predicting the fracture toughness of PNCs: A stochastic approach based on ANN and ANFIS. <i>Computational Materials Science</i> , 2015 , 102, 304-313	3.2	66
508	Detection of multiple flaws in piezoelectric structures using XFEM and level sets. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014 , 275, 98-112	5.7	64

507	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	3.6	63
506	A meshless adaptive multiscale method for fracture. <i>Computational Materials Science</i> , 2015 , 96, 382-395	3.2	63
505	N-, P-, As-triphenylene-graphdiyne: Strong and stable 2D semiconductors with outstanding capacities as anodes for Li-ion batteries. <i>Carbon</i> , 2019 , 141, 291-303	10.4	63
504	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	14.4	62
503	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	10	62
502	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	10	61
501	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	5.7	61
500	Topology optimization of piezoelectric nanostructures. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 94, 316-335	5	61
499	Predictions of J integral and tensile strength of clay/epoxy nanocomposites material using phase field model. <i>Composites Part B: Engineering</i> , 2016 , 93, 97-114	10	61
498	Modeling and simulation of kinked cracks by virtual node XFEM. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 283, 1425-1466	5.7	60
497	Mechanical responses of pristine and defective C3N nanosheets studied by molecular dynamics simulations. <i>Computational Materials Science</i> , 2018 , 147, 316-321	3.2	60
496	Enhancement in hydrogen storage capacities of light metal functionalized Boron Graphdiyne nanosheets. <i>Carbon</i> , 2019 , 147, 199-205	10.4	59
495	MoS2 nanoresonators: intrinsically better than graphene?. <i>Nanoscale</i> , 2014 , 6, 3618-25	7.7	59
494	DigiSim [An Open Source Software Package for Heterogeneous Material Modeling Based on Digital Image Processing. <i>Advances in Engineering Software</i> , 2020 , 148, 102836	3.6	58
493	An Intelligent Artificial Neural Network-Response Surface Methodology Method for Accessing the Optimum Biodiesel and Diesel Fuel Blending Conditions in a Diesel Engine from the Viewpoint of Exergy and Energy Analysis. <i>Energies</i> , 2018 , 11, 860	3.1	58
492	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	57
491	Thermo-mechanical buckling behavior of FG GNP reinforced micro plate based on MSGT. <i>Thin-Walled Structures</i> , 2019 , 142, 444-459	4.7	57
490	Crack propagation in graphene. <i>Journal of Applied Physics</i> , 2015 , 118, 064307	2.5	56

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11	Phantom node method 2020 , 153-160	
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