

Wing Kam Liu

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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.

172
papers

10,477
citations

52
h-index

99
g-index

181
ext. papers

11,876
ext. citations

4
avg, IF

6.47
L-index

#	Paper	IF	Citations
172	Reproducing kernel particle methods. <i>International Journal for Numerical Methods in Fluids</i> , 1995 , 20, 1081-1106	1.9	1984
171	Reproducing kernel particle methods for structural dynamics. <i>International Journal for Numerical Methods in Engineering</i> , 1995 , 38, 1655-1679	2.4	583
170	Coupling of atomistic and continuum simulations using a bridging scale decomposition. <i>Journal of Computational Physics</i> , 2003 , 190, 249-274	4.1	501
169	Immersed finite element method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 2051-2067	5.7	354
168	A unified stability analysis of meshless particle methods. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 48, 1359-1400	2.4	288
167	Rheology of red blood cell aggregation by computer simulation. <i>Journal of Computational Physics</i> , 2006 , 220, 139-154	4.1	207
166	Shape effect in cellular uptake of PEGylated nanoparticles: comparison between sphere, rod, cube and disk. <i>Nanoscale</i> , 2015 , 7, 16631-46	7.7	204
165	Immersed finite element method and its applications to biological systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 1722-1749	5.7	204
164	Wavelet and multiple scale reproducing kernel methods. <i>International Journal for Numerical Methods in Fluids</i> , 1995 , 21, 901-931	1.9	189
163	Self-consistent clustering analysis: An efficient multi-scale scheme for inelastic heterogeneous materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 306, 319-341	5.7	176
162	Extended immersed boundary method using FEM and RKPM. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 1305-1321	5.7	148
161	Challenges in Multiscale Modeling of Polymer Dynamics. <i>Polymers</i> , 2013 , 5, 751-832	4.5	143
160	Endocytosis of PEGylated nanoparticles accompanied by structural and free energy changes of the grafted polyethylene glycol. <i>Biomaterials</i> , 2014 , 35, 8467-78	15.6	142
159	Nanoparticle effect on the dynamics of polymer chains and their entanglement network. <i>Physical Review Letters</i> , 2012 , 109, 118001	7.4	141
158	Mechanics of C60 in Nanotubes. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 10753-10758	3.4	137
157	Reproducing kernel hierarchical partition of unity, Part I: Formulation and theory. <i>International Journal for Numerical Methods in Engineering</i> , 1999 , 45, 251-288	2.4	133
156	Linking process, structure, property, and performance for metal-based additive manufacturing: computational approaches with experimental support. <i>Computational Mechanics</i> , 2016 , 57, 583-610	4	130

155	A multiscale projection method for the analysis of carbon nanotubes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 1603-1632	5.7	130
154	Reproducing kernel element method. Part I: Theoretical formulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 933-951	5.7	127
153	Mesh-free Galerkin simulations of dynamic shear band propagation and failure mode transition. <i>International Journal of Solids and Structures</i> , 2002 , 39, 1213-1240	3.1	127
152	Bridging scale methods for nanomechanics and materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 1407-1421	5.7	113
151	A meshfree unification: reproducing kernel peridynamics. <i>Computational Mechanics</i> , 2014 , 53, 1251-1264		111
150	Coupling of Navier-Stokes equations with protein molecular dynamics and its application to hemodynamics. <i>International Journal for Numerical Methods in Fluids</i> , 2004 , 46, 1237-1252	1.9	108
149	Data-driven multi-scale multi-physics models to derive process-structure-property relationships for additive manufacturing. <i>Computational Mechanics</i> , 2018 , 61, 521-541	4	96
148	Multi-scale constitutive model and computational framework for the design of ultra-high strength, high toughness steels. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 1865-1908	5.7	96
147	Multiresolution reproducing kernel particle method for computational fluid dynamics. <i>International Journal for Numerical Methods in Fluids</i> , 1997 , 24, 1391-1415	1.9	95
146	Application of essential boundary conditions in mesh-free methods: a corrected collocation method. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 47, 1367-1379	2.4	95
145	On criteria for dynamic adiabatic shear band propagation. <i>Journal of the Mechanics and Physics of Solids</i> , 2007 , 55, 1439-1461	5	93
144	Enrichment of the Finite Element Method With the Reproducing Kernel Particle Method. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1997 , 64, 861-870	2.7	91
143	A Green's function approach to deriving non-reflecting boundary conditions in molecular dynamics simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 62, 1250-1262	2.4	89
142	Reproducing kernel hierarchical partition of unity, Part II—applications. <i>International Journal for Numerical Methods in Engineering</i> , 1999 , 45, 289-317	2.4	85
141	Three-dimensional bridging scale analysis of dynamic fracture. <i>Journal of Computational Physics</i> , 2005 , 207, 588-609	4.1	84
140	A micromorphic model for the multiple scale failure of heterogeneous materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2008 , 56, 1320-1347	5	82
139	Hierarchical enrichment for bridging scales and mesh-free boundary conditions. <i>International Journal for Numerical Methods in Engineering</i> , 2001 , 50, 507-524	2.4	75
138	Bridging multi-scale method for localization problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 3267-3302	5.7	69

137	Molecular simulation guided constitutive modeling on finite strain viscoelasticity of elastomers. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 88, 204-226	5	67
136	Dynamic structure of unentangled polymer chains in the vicinity of non-attractive nanoparticles. <i>Soft Matter</i> , 2014 , 10, 1723-37	3.6	67
135	Mathematical foundations of the immersed finite element method. <i>Computational Mechanics</i> , 2006 , 39, 211-222	4	67
134	Numerical simulations of strain localization in inelastic solids using mesh-free methods. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 48, 1285-1309	2.4	66
133	Cell and nanoparticle transport in tumour microvasculature: the role of size, shape and surface functionality of nanoparticles. <i>Interface Focus</i> , 2016 , 6, 20150086	3.9	64
132	Synthesis of nanodiamond-daunorubicin conjugates to overcome multidrug chemoresistance in leukemia. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014 , 10, 359-69	6	63
131	A cellular automaton finite volume method for microstructure evolution during additive manufacturing. <i>Materials and Design</i> , 2019 , 169, 107672	8.1	62
130	Multiscale modeling of electron beam and substrate interaction: a new heat source model. <i>Computational Mechanics</i> , 2015 , 56, 265-276	4	62
129	Two-scale mechanism-based theory of nonlinear viscoelasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 199-226	5	58
128	Linking microstructure and properties through a predictive multiresolution continuum. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 3268-3290	5.7	58
127	Multiple quadrature underintegrated finite elements. <i>International Journal for Numerical Methods in Engineering</i> , 1994 , 37, 3263-3289	2.4	58
126	A mathematical framework of the bridging scale method. <i>International Journal for Numerical Methods in Engineering</i> , 2006 , 65, 1688-1713	2.4	57
125	An integrated process-structure-property modeling framework for additive manufacturing. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 339, 184-204	5.7	57
124	A phonon heat bath approach for the atomistic and multiscale simulation of solids. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 70, 351-378	2.4	55
123	Design of mechanical metamaterials for simultaneous vibration isolation and energy harvesting. <i>Applied Physics Letters</i> , 2017 , 111, 251903	3.4	53
122	Benchmark Study of Thermal Behavior, Surface Topography, and Dendritic Microstructure in Selective Laser Melting of Inconel 625. <i>Integrating Materials and Manufacturing Innovation</i> , 2019 , 8, 178-193	2.9	52
121	A parallelized three-dimensional cellular automaton model for grain growth during additive manufacturing. <i>Computational Mechanics</i> , 2018 , 61, 543-558	4	52
120	A multiresolution continuum simulation of the ductile fracture process. <i>Journal of the Mechanics and Physics of Solids</i> , 2010 , 58, 1681-1700	5	52

119	Immersed electrokinetic finite element method. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 71, 379-405	2.4	51
118	A Multiscale Model for the Quasi-Static Thermo-Plastic Behavior of Highly Cross-Linked Glassy Polymers. <i>Macromolecules</i> , 2015 , 48, 6713-6723	5.5	50
117	The 3-D computational modeling of shear-dominated ductile failure in steel. <i>Jom</i> , 2006 , 58, 45-51	2.1	49
116	Multi-scale methods. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 47, 1343-1361	2.4	45
115	Multiple scale finite element methods. <i>International Journal for Numerical Methods in Engineering</i> , 1991 , 32, 969-990	2.4	45
114	Modeling process-structure-property relationships for additive manufacturing. <i>Frontiers of Mechanical Engineering</i> , 2018 , 13, 482-492	3.3	43
113	Multiscale modeling and uncertainty quantification in nanoparticle-mediated drug/gene delivery. <i>Computational Mechanics</i> , 2014 , 53, 511-537	4	43
112	Predictive multiscale theory for design of heterogeneous materials. <i>Computational Mechanics</i> , 2008 , 42, 147-170	4	43
111	Automatised selection of load paths to construct reduced-order models in computational damage micromechanics: from dissipation-driven random selection to Bayesian optimization. <i>Computational Mechanics</i> , 2016 , 58, 213-234	4	42
110	Multiscale methods for mechanical science of complex materials: Bridging from quantum to stochastic multiresolution continuum. <i>International Journal for Numerical Methods in Engineering</i> , 2010 , 83, 1039-1080	2.4	42
109	Clustering discretization methods for generation of material performance databases in machine learning and design optimization. <i>Computational Mechanics</i> , 2019 , 64, 281-305	4	41
108	Thermodynamically consistent microstructure prediction of additively manufactured materials. <i>Computational Mechanics</i> , 2016 , 57, 359-370	4	40
107	Non-reflecting boundary conditions for atomistic, continuum and coupled atomistic/continuum simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 64, 237-259	2.4	40
106	Powder-scale multi-physics modeling of multi-layer multi-track selective laser melting with sharp interface capturing method. <i>Computational Mechanics</i> , 2019 , 63, 649-661	4	39
105	Multiresolution continuum modeling of micro-void assisted dynamic adiabatic shear band propagation. <i>Journal of the Mechanics and Physics of Solids</i> , 2010 , 58, 187-205	5	38
104	Complexity science of multiscale materials via stochastic computations. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 80, 932-978	2.4	35
103	Meshfree point collocation method with intrinsic enrichment for interface problems. <i>Computational Mechanics</i> , 2007 , 40, 1037-1052	4	34
102	Moving particle finite element method with superconvergence: Nodal integration formulation and applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 6059-6072	5.7	33

101	An ALE hydrodynamic lubrication finite element method with application to strip rolling. <i>International Journal for Numerical Methods in Engineering</i> , 1993 , 36, 855-880	2.4	33
100	Universal scaling laws of keyhole stability and porosity in 3D printing of metals. <i>Nature Communications</i> , 2021 , 12, 2379	17.4	33
99	Derivation of heterogeneous material laws via data-driven principal component expansions. <i>Computational Mechanics</i> , 2019 , 64, 365-379	4	30
98	Self-consistent clustering analysis for multiscale modeling at finite strains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 349, 339-359	5.7	30
97	From virtual clustering analysis to self-consistent clustering analysis: a mathematical study. <i>Computational Mechanics</i> , 2018 , 62, 1443-1460	4	30
96	Effective Models for Prediction of Springback In Flanging. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2001 , 123, 456-461	1.8	30
95	ALE finite element formulation for ring rolling analysis. <i>International Journal for Numerical Methods in Engineering</i> , 1992 , 33, 1217-1236	2.4	30
94	Moving particle finite element method. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 53, 1937-1958	2.4	29
93	USNCTAM perspectives on mechanics in medicine. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140301	4.1	28
92	Multiresolution modeling of ductile reinforced brittle composites. <i>Journal of the Mechanics and Physics of Solids</i> , 2009 , 57, 244-267	5	28
91	A Petrov-Galerkin finite element method for the fractional advection-diffusion equation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 309, 388-410	5.7	27
90	Multi-scale solid oxide fuel cell materials modeling. <i>Computational Mechanics</i> , 2009 , 44, 683-703	4	27
89	Adaptive enrichment meshfree simulation and experiment on buckling and post-buckling analysis in sheet metal forming. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005 , 194, 2569-2590	5.7	26
88	An extended micromechanics method for probing interphase properties in polymer nanocomposites. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 95, 663-680	5	26
87	Moving particle finite element method with global smoothness. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 59, 1007-1020	2.4	25
86	Hierarchical Deep Learning Neural Network (HiDeNN): An artificial intelligence (AI) framework for computational science and engineering. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 373, 113452	5.7	25
85	Implementation aspects of the bridging scale method and application to intersonic crack propagation. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 71, 583-605	2.4	24
84	Parallel computation of meshless methods for explicit dynamic analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 47, 1323-1341	2.4	23

83	Stochastic Reassembly Strategy for Managing Information Complexity in Heterogeneous Materials Analysis and Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2013 , 135,	3	22
82	Multiscale ductile fracture integrating tomographic characterization and 3-D simulation. <i>Acta Materialia</i> , 2015 , 82, 503-510	8.4	21
81	Quantifying uncertainties in the microvascular transport of nanoparticles. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 515-26	3.8	21
80	Multi-length scale micromorphic process zone model. <i>Computational Mechanics</i> , 2009 , 44, 433-445	4	20
79	Materials integrity in microsystems: a framework for a petascale predictive-science-based multiscale modeling and simulation system. <i>Computational Mechanics</i> , 2008 , 42, 485-510	4	20
78	Convergence analysis of a hierarchical enrichment of Dirichlet boundary conditions in a mesh-free method. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 53, 1323-1336	2.4	20
77	Predictive multiscale modeling for Unidirectional Carbon Fiber Reinforced Polymers. <i>Composites Science and Technology</i> , 2020 , 186, 107922	8.6	20
76	Predicting band structure of 3D mechanical metamaterials with complex geometry via XFEM. <i>Computational Mechanics</i> , 2015 , 55, 659-672	4	19
75	A generalized uncertainty propagation criterion from benchmark studies of microstructured material systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013 , 254, 271-291	5.7	19
74	Efficient multiscale modeling for woven composites based on self-consistent clustering analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 364, 112929	5.7	18
73	Data-Driven Microstructure and Microhardness Design in Additive Manufacturing Using a Self-Organizing Map. <i>Engineering</i> , 2019 , 5, 730-735	9.7	17
72	Data science for finite strain mechanical science of ductile materials. <i>Computational Mechanics</i> , 2019 , 64, 33-45	4	17
71	Concurrent multiresolution finite element: formulation and algorithmic aspects. <i>Computational Mechanics</i> , 2013 , 52, 1265-1279	4	16
70	Finite element method for mixed elastohydrodynamic lubrication of journal-bearing systems. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 60, 1759-1790	2.4	16
69	Differential operator multiplication method for fractional differential equations. <i>Computational Mechanics</i> , 2016 , 58, 879-888	4	16
68	Data-Driven Mechanistic Modeling of Influence of Microstructure on High-Cycle Fatigue Life of Nickel Titanium. <i>Jom</i> , 2018 , 70, 1154-1158	2.1	15
67	The archetype-genome exemplar in molecular dynamics and continuum mechanics. <i>Computational Mechanics</i> , 2014 , 53, 687-737	4	15
66	A statistical descriptor based volume-integral micromechanics model of heterogeneous material with arbitrary inclusion shape. <i>Computational Mechanics</i> , 2015 , 55, 963-981	4	14

65	Enriched reproducing kernel particle method for fractional advection-diffusion equation. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2018 , 34, 515-527	2	14
64	A finite temperature continuum theory based on interatomic potential in crystalline solids. <i>Computational Mechanics</i> , 2008 , 42, 531-541	4	14
63	Meshfree simulation of failure modes in thin cylinders subjected to combined loads of internal pressure and localized heat. <i>International Journal for Numerical Methods in Engineering</i> , 2008 , 76, 1159-1184	2.4	14
62	Hierarchical deep-learning neural networks: finite elements and beyond. <i>Computational Mechanics</i> , 2021 , 67, 207-230	4	14
61	A semi-numerical algorithm for instability of compressible multilayered structures. <i>Computational Mechanics</i> , 2015 , 56, 63-75	4	13
60	Conforming local meshfree method. <i>International Journal for Numerical Methods in Engineering</i> , 2011 , 86, 335-357	2.4	12
59	Simulation and prediction of endothelial cell adhesion modulated by molecular engineering. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 2340-2352	5.7	12
58	An enriched finite element method to fractional advection-diffusion equation. <i>Computational Mechanics</i> , 2017 , 60, 181-201	4	11
57	A renormalization approach to model interaction in microstructured solids: Application to porous elastomer. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012 , 217-220, 213-225	5.7	11
56	Numerical Modelling in Science and Engineering. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1988 , 55, 996-997	2.7	11
55	Fast calculation of interaction tensors in clustering-based homogenization. <i>Computational Mechanics</i> , 2019 , 64, 351-364	4	10
54	Tensile Stress-Driven Surface Wrinkles on Cylindrical Core-Shell Soft Solids. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	10
53	Treatment of discontinuity in the reproducing kernel element method. <i>International Journal for Numerical Methods in Engineering</i> , 2005 , 63, 241-255	2.4	10
52	Bimaterial Interfacial Crack Growth With Strain Gradient Theory. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1999 , 121, 413-421	1.8	10
51	Efficient prediction of protein conformational pathways based on the hybrid elastic network model. <i>Journal of Molecular Graphics and Modelling</i> , 2014 , 47, 25-36	2.8	9
50	A variable constraint tube model for size effects of polymer nano-structures. <i>Applied Physics Letters</i> , 2011 , 99, 191910	3.4	9
49	Approaching Mixed Elastohydrodynamic Lubrication of Smooth Journal-Bearing Systems with Low Rotating Speed. <i>Tribology Transactions</i> , 2006 , 49, 598-610	1.8	9
48	Cohesive solutions of intersonic moving dislocations. <i>Philosophical Magazine</i> , 2004 , 84, 1067-1104	1.6	9

47	An inverse modeling approach for predicting filled rubber performance. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 357, 112567	5.7	8
46	An Efficient Elastic Displacement Analysis Procedure for Simulating Transient Conformal-Contact Elastohydrodynamic Lubrication Systems. <i>Journal of Tribology</i> , 2010 , 132,	1.8	8
45	Image-based multiscale modeling with spatially varying microstructures from experiments: Demonstration with additively manufactured metal in fatigue and fracture. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 150, 104350	5	8
44	Mechanistic data-driven prediction of as-built mechanical properties in metal additive manufacturing. <i>Npj Computational Materials</i> , 2021 , 7,	10.9	8
43	Image-based modelling for Adolescent Idiopathic Scoliosis: Mechanistic machine learning analysis and prediction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 374, 113590	5.7	8
42	Modular-based multiscale modeling on viscoelasticity of polymer nanocomposites. <i>Computational Mechanics</i> , 2017 , 59, 187-201	4	7
41	A domain-reduction approach to bridging-scale simulation of one-dimensional nanostructures. <i>Computational Mechanics</i> , 2011 , 47, 31-47	4	7
40	Multiple time scale method for atomistic simulations. <i>Computational Mechanics</i> , 2008 , 42, 569-577	4	7
39	Flexible piecewise approximations based on partition of unity. <i>Advances in Computational Mathematics</i> , 2005 , 23, 191-199	1.6	7
38	Finite element hydrodynamic friction model for metal forming. <i>International Journal for Numerical Methods in Engineering</i> , 1994 , 37, 4015-4037	2.4	7
37	Elastic interactions of a fatigue crack with a micro-defect by the mixed boundary integral equation method. <i>International Journal for Numerical Methods in Engineering</i> , 1993 , 36, 2743-2759	2.4	7
36	Reproducing Kernel Particle Method for Solving Partial Differential Equations 2017 , 1-44		6
35	A modal analysis of carbon nanotube using elastic network model. <i>Journal of Mechanical Science and Technology</i> , 2012 , 26, 3433-3438	1.6	6
34	Mechano-kinetic coupling approach for materials with dynamic internal structure. <i>Philosophical Magazine Letters</i> , 2010 , 90, 471-480	1	6
33	Mechanistic artificial intelligence (mechanistic-AI) for modeling, design, and control of advanced manufacturing processes: Current state and perspectives. <i>Journal of Materials Processing Technology</i> , 2022 , 302, 117485	5.3	6
32	Experimental and computational validation of Hele-Shaw stagnation flow with varying shear stress. <i>Computational Mechanics</i> , 2013 , 52, 1463-1473	4	5
31	An energetically consistent concurrent multiscale method for heterogeneous heat transfer and phase transition applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 315, 100-120	5.7	5
30	Curvilinear fatigue crack reliability analysis by stochastic boundary element method. <i>International Journal for Numerical Methods in Engineering</i> , 1993 , 36, 3841-3858	2.4	5

29	Dynamic stability characteristics of liquid-filled shells. <i>Earthquake Engineering and Structural Dynamics</i> , 1989 , 18, 1219-1231	4	5
28	Multiresolution clustering analysis for efficient modeling of hierarchical material systems. <i>Computational Mechanics</i> , 2021 , 67, 1293-1306	4	5
27	A sequential homogenization of multi-coated micromechanical model for functionally graded interphase composites. <i>Computational Mechanics</i> , 2019 , 64, 1321-1337	4	4
26	Special issue on Additive manufacturing: progress in modeling and simulation with experimental validations in additive manufacturing. <i>Computational Mechanics</i> , 2018 , 61, 519-520	4	4
25	Precise spring constant assignment in elastic network model for identification of vibration frequency and modeshape. <i>Journal of Mechanical Science and Technology</i> , 2010 , 24, 1771-1780	1.6	4
24	Adaptive hyper reduction for additive manufacturing thermal fluid analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 372, 113312	5.7	4
23	Reproducing kernel hierarchical partition of unity, Part I: formulation and theory 1999 , 45, 251		4
22	Data-driven characterization of thermal models for powder-bed-fusion additive manufacturing. <i>Additive Manufacturing</i> , 2020 , 36,	6.1	3
21	Advancements in multiresolution analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 102, 784-807	2.4	3
20	Finite element simulation of saw-tooth chip in high-speed machining based on multiresolution continuum theory. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 101, 1759-1772	3.2	3
19	Variable Chain Confinement in Polymers With Nanosized Pores and Its Impact on Instability. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015 , 82,	2.7	2
18	Multiscale Modeling for the Vascular Transport of Nanoparticles 2012 , 437-459		2
17	Analytical expression of RKPM shape functions. <i>Computational Mechanics</i> , 2020 , 66, 1343-1352	4	2
16	Microscale Structure to Property Prediction for Additively Manufactured IN625 through Advanced Material Model Parameter Identification. <i>Integrating Materials and Manufacturing Innovation</i> , 2021 , 10, 142-156	2.9	2
15	Self-consistent clustering analysis for modeling of thermelastic heterogeneous materials 2021 ,		2
14	From microscale to mesoscale: The non-linear behavior prediction of 3D braided composites based on the SCA2 concurrent multiscale simulation. <i>Composites Science and Technology</i> , 2021 , 213, 108947	8.6	2
13	Numerical simulations of strain localization in inelastic solids using mesh-free methods 2000 , 48, 1285		2
12	Implicit finite element formulation of multiresolution continuum theory. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 293, 114-130	5.7	1

11	Enhancement of Endothelial Cell Retention on ePTFE Vascular Constructs by siRNA-Mediated SHP-1 or SHP-2 Gene Silencing. <i>Cellular and Molecular Bioengineering</i> , 2015 , 8, 507-516	3.9	1
10	Intersection-free tetrahedral meshing from volumetric images. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , 2013 , 1, 100-110	0.9	1
9	Macroscale Property Prediction for Additively Manufactured IN625 from Microstructure Through Advanced Homogenization. <i>Integrating Materials and Manufacturing Innovation</i> , 2021 , 10, 360-372	2.9	1
8	System and Design 2021 , 215-266		0
7	HiDeNN-TD: Reduced-order hierarchical deep learning neural networks. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 389, 114414	5.7	0
6	Benchmark Study of Melted Track Geometries in Laser Powder Bed Fusion of Inconel 625. <i>Integrating Materials and Manufacturing Innovation</i> , 2021 , 10, 177-195	2.9	0
5	Preface: special issue of computational mechanics on Connecting Multiscale Mechanics to Complex Material Design <i>Computational Mechanics</i> , 2016 , 57, 355-357	4	
4	Variational boundary integral approach for asymmetric impinging jets of arbitrary two-dimensional nozzle. <i>International Journal for Numerical Methods in Fluids</i> , 2018 , 88, 193-216	1.9	
3	BIOMIMETIC CILIA. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2014 , 509-532	0.1	
2	Characterization of Point Defect Generation, Migration and Coalescence in Irradiated SiC by Atomistic Simulation. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1043, 1		
1	Double Averaging Analysis Applied to a Large Eddy Simulation of Coupled Turbulent Overlying and Porewater Flow. <i>Water Resources Research</i> , 2021 , 57, e2021WR029918	5.4	