

Ellen Kuhl

List of Publications by Year in descending order

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314
papers

16,494
citations

13818

67
h-index

26426

108
g-index

359
all docs

359
docs citations

359
times ranked

14001
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical properties of gray and white matter brain tissue by indentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 46, 318-330.	3.1	535
2	Mechanical characterization of human brain tissue. <i>Acta Biomaterialia</i> , 2017, 48, 319-340.	8.8	466
3	Perspectives on biological growth and remodeling. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 863-883.	4.9	382
4	Integrating machine learning and multiscale modeling—perspectives, challenges, and opportunities in the biological, biomedical, and behavioral sciences. <i>Npj Digital Medicine</i> , 2019, 2, 115.	11.3	375
5	Mechanics of the brain: perspectives, challenges, and opportunities. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 931-965.	3.0	304
6	The Living Heart Project: A robust and integrative simulator for human heart function. <i>European Journal of Mechanics, A/Solids</i> , 2014, 48, 38-47.	3.8	280
7	Fifty Shades of Brain: A Review on the Mechanical Testing and Modeling of Brain Tissue. <i>Archives of Computational Methods in Engineering</i> , 2020, 27, 1187-1230.	10.6	256
8	Outbreak dynamics of COVID-19 in Europe and the effect of travel restrictions. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 710-717.	1.7	252
9	A finite element method for the computational modelling of cohesive cracks. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 63, 276-289.	2.9	211
10	Physical biology of human brain development. <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 257.	3.8	211
11	The role of mechanics during brain development. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 72, 75-92.	4.9	203
12	Brain stiffness increases with myelin content. <i>Acta Biomaterialia</i> , 2016, 42, 265-272.	8.8	203
13	Physics-Informed Neural Networks for Cardiac Activation Mapping. <i>Frontiers in Physics</i> , 2020, 8, .	2.2	200
14	A multiscale model for eccentric and concentric cardiac growth through sarcomerogenesis. <i>Journal of Theoretical Biology</i> , 2010, 265, 433-442.	1.7	198
15	Multiscale Modeling Meets Machine Learning: What Can We Learn?. <i>Archives of Computational Methods in Engineering</i> , 2021, 28, 1017-1037.	10.6	191
16	Electromechanics of the heart: a unified approach to the strongly coupled excitation–contraction problem. <i>Computational Mechanics</i> , 2010, 45, 227-243.	4.0	185
17	Frontiers in growth and remodeling. <i>Mechanics Research Communications</i> , 2012, 42, 1-14.	1.9	185
18	A discontinuous Galerkin method for the Cahn–Hilliard equation. <i>Journal of Computational Physics</i> , 2006, 218, 860-877.	3.9	174

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19	Multiphysics and multiscale modelling, data‐model fusion and integration of organ physiology in the clinic: ventricular cardiac mechanics. <i>Interface Focus</i> , 2016, 6, 20150083.	3.2	173
20	A mechanical model predicts morphological abnormalities in the developing human brain. <i>Scientific Reports</i> , 2014, 4, 5644.	3.4	167
21	Remodeling of biological tissue: Mechanically induced reorientation of a transversely isotropic chain network. <i>Journal of the Mechanics and Physics of Solids</i> , 2005, 53, 1552-1573.	4.9	166
22	Growth and remodelling of living tissues: perspectives, challenges and opportunities. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190233.	3.4	159
23	The reproduction number of COVID-19 and its correlation with public health interventions. <i>Computational Mechanics</i> , 2020, 66, 1035-1050.	4.0	158
24	Using 3D Printing to Create Personalized Brain Models for Neurosurgical Training and Preoperative Planning. <i>World Neurosurgery</i> , 2016, 90, 668-674.	1.5	154
25	Computational modeling of arterial wall growth. <i>Biomechanics and Modeling in Mechanobiology</i> , 2007, 6, 321-331.	3.0	144
26	A family of hyperelastic models for human brain tissue. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 106, 60-79.	4.9	136
27	Rheological characterization of human brain tissue. <i>Acta Biomaterialia</i> , 2017, 60, 315-329.	8.8	136
28	Growing matter: A review of growth in living systems. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 29, 529-543.	3.1	135
29	Viscoelastic parameter identification of human brain tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 74, 463-476.	3.1	133
30	Outbreak dynamics of COVID-19 in China and the United States. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 2179-2193.	3.0	132
31	A generic approach towards finite growth with examples of athlete's heart, cardiac dilation, and cardiac wall thickening. <i>Journal of the Mechanics and Physics of Solids</i> , 2010, 58, 1661-1680.	4.9	131
32	An anisotropic gradient damage model for quasi-brittle materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 183, 87-103.	6.7	126
33	Use it or lose it: multiscale skeletal muscle adaptation to mechanical stimuli. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 195-215.	3.0	125
34	Computational modeling of passive myocardium. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2011, 27, 1-12.	2.2	120
35	Passive Stretch Induces Structural and Functional Maturation of Engineered Heart Muscle as Predicted by Computational Modeling. <i>Stem Cells</i> , 2018, 36, 265-277.	3.6	118
36	Segmental Aortic Stiffening Contributes to Experimental Abdominal Aortic Aneurysm Development. <i>Circulation</i> , 2015, 131, 1783-1795.	9.3	117

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37	Growing skin: A computational model for skin expansion in reconstructive surgery. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 2177-2190.	4.9	115
38	Precision medicine in human heart modeling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 803-831.	3.0	107
39	Constitutive Modeling of Brain Tissue: Current Perspectives. <i>Applied Mechanics Reviews</i> , 2016, 68, .	10.3	103
40	Computational modeling of growth. <i>Computational Mechanics</i> , 2003, 32, 71-88.	4.0	99
41	Generating fibre orientation maps in human heart models using Poisson interpolation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1217-1226.	1.7	99
42	Stretching Skeletal Muscle: Chronic Muscle Lengthening through Sarcomerogenesis. <i>PLoS ONE</i> , 2012, 7, e45661.	2.5	98
43	Pattern Selection in Growing Tubular Tissues. <i>Physical Review Letters</i> , 2014, 113, 248101.	8.0	97
44	Growth on demand: Reviewing the mechanobiology of stretched skin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 28, 495-509.	3.1	96
45	On the effect of prestrain and residual stress in thin biological membranes. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 1955-1969.	4.9	95
46	A hybrid discontinuous Galerkin/interface method for the computational modelling of failure. <i>Communications in Numerical Methods in Engineering</i> , 2004, 20, 511-519.	1.3	94
47	Multiscale Computational Models for Optogenetic Control of Cardiac Function. <i>Biophysical Journal</i> , 2011, 101, 1326-1334.	0.5	93
48	On the biomechanics and mechanobiology of growing skin. <i>Journal of Theoretical Biology</i> , 2012, 297, 166-175.	1.7	93
49	An arbitrary Lagrangian Eulerian finite-element approach for fluid-structure interaction phenomena. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 57, 117-142.	2.9	92
50	Multiphysics of Prionlike Diseases: Progression and Atrophy. <i>Physical Review Letters</i> , 2018, 121, 158101.	8.0	91
51	Isogeometric Kirchhoff-Love shell formulations for biological membranes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 293, 328-347.	6.7	90
52	Period-doubling and period-tripling in growing bilayered systems. <i>Philosophical Magazine</i> , 2015, 95, 3208-3224.	1.6	89
53	A continuum model for remodeling in living structures. <i>Journal of Materials Science</i> , 2007, 42, 8811-8823.	3.7	88
54	Computational modeling of growth: systemic and pulmonary hypertension in the heart. <i>Biomechanics and Modeling in Mechanobiology</i> , 2011, 10, 799-811.	3.0	88

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55	A physics-based model explains the prion-like features of neurodegeneration in Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 124, 264-281.	4.9	88
56	Stress concentrations in fractured compact bone simulated with a special class of anisotropic gradient elasticity. <i>International Journal of Solids and Structures</i> , 2010, 47, 1099-1107.	2.7	87
57	Emerging Brain Morphologies from Axonal Elongation. <i>Annals of Biomedical Engineering</i> , 2015, 43, 1640-1653.	2.6	86
58	Generating Purkinje networks in the human heart. <i>Journal of Biomechanics</i> , 2016, 49, 2455-2465.	2.1	85
59	The Shrinking Brain: Cerebral Atrophy Following Traumatic Brain Injury. <i>Annals of Biomedical Engineering</i> , 2019, 47, 1941-1959.	2.6	85
60	Computational modeling of cardiac electrophysiology: A novel finite element approach. <i>International Journal for Numerical Methods in Engineering</i> , 2009, 79, 156-178.	2.9	84
61	Prion-like spreading of Alzheimer's disease within the brain's connectome. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190356.	3.4	84
62	Stretching skin: The physiological limit and beyond. <i>International Journal of Non-Linear Mechanics</i> , 2012, 47, 938-949.	2.7	82
63	A fully implicit finite element method for bidomain models of cardiac electromechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 253, 323-336.	6.7	82
64	Machine learning in drug development: Characterizing the effect of 30 drugs on the QT interval using Gaussian process regression, sensitivity analysis, and uncertainty quantification. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 348, 313-333.	6.7	80
65	Systems-based approaches toward wound healing. <i>Pediatric Research</i> , 2013, 73, 553-563.	2.4	79
66	Modeling three-dimensional crack propagation: A comparison of crack path tracking strategies. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 76, 1328-1352.	2.9	78
67	Material properties of the ovine mitral valve anterior leaflet in vivo from inverse finite element analysis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2008, 295, H1141-H1149.	3.4	78
68	Heterogeneous growth-induced prestrain in the heart. <i>Journal of Biomechanics</i> , 2015, 48, 2080-2089.	2.1	78
69	Sex Matters: A Comprehensive Comparison of Female and Male Hearts. <i>Frontiers in Physiology</i> , 2022, 13, 831179.	2.8	77
70	Modeling Pathologies of Diastolic and Systolic Heart Failure. <i>Annals of Biomedical Engineering</i> , 2016, 44, 112-127.	2.6	76
71	A new family of Constitutive Artificial Neural Networks towards automated model discovery. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2023, 403, 115731.	6.7	76
72	Brain stiffens post mortem. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 84, 88-98.	3.1	72

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73	Mass- and volume-specific views on thermodynamics for open systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 2547-2568.	2.1	71
74	Mechanics of the mitral valve. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1053-1071.	3.0	71
75	An ALE formulation based on spatial and material settings of continuum mechanics. Part 1: Generic hyperelastic formulation. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4207-4222.	6.7	70
76	A Novel Method for Quantifying the In-Vivo Mechanical Effect of Material Injected Into a Myocardial Infarction. Annals of Thoracic Surgery, 2011, 92, 935-941.	1.4	69
77	Are college campuses superspreaders? A data-driven modeling study. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 1136-1145.	1.7	69
78	Mitral Valve Annuloplasty. Annals of Biomedical Engineering, 2012, 40, 750-761.	2.6	67
79	Towards microstructure-informed material models for human brain tissue. Acta Biomaterialia, 2020, 104, 53-65.	8.8	67
80	In vivo dynamic strains of the ovine anterior mitral valve leaflet. Journal of Biomechanics, 2011, 44, 1149-1157.	2.1	64
81	The emergence of extracellular matrix mechanics and cell traction forces as important regulators of cellular self-organization. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1-13.	3.0	64
82	Stress-strain behavior of mitral valve leaflets in the beating ovine heart. Journal of Biomechanics, 2009, 42, 1909-1916.	2.1	63
83	Characterization of indentation response and stiffness reduction of bone using a continuum damage model. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 189-202.	3.1	63
84	The mechanical importance of myelination in the central nervous system. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 76, 119-124.	3.1	63
85	Using machine learning to characterize heart failure across the scales. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1987-2001.	3.0	63
86	Growing skin: tissue expansion in pediatric forehead reconstruction. Biomechanics and Modeling in Mechanobiology, 2012, 11, 855-867.	3.0	62
87	Instabilities of soft films on compliant substrates. Journal of the Mechanics and Physics of Solids, 2017, 98, 350-365.	4.9	61
88	Visualizing the invisible: The effect of asymptomatic transmission on the outbreak dynamics of COVID-19. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113410.	6.7	61
89	Characterization of Mitral Valve Annular Dynamics in the Beating Heart. Annals of Biomedical Engineering, 2011, 39, 1690-1702.	2.6	60
90	Evidence of adaptive mitral leaflet growth. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 15, 208-217.	3.1	59

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91	Is it safe to lift COVID-19 travel bans? The Newfoundland story. <i>Computational Mechanics</i> , 2020, 66, 1081-1092.	4.0	58
92	Theory and numerics of geometrically non-linear open system mechanics. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 58, 1593-1615.	2.9	57
93	On the mechanics of continua with boundary energies and growing surfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 1446-1463.	4.9	57
94	Neuromechanics. <i>Advances in Applied Mechanics</i> , 2015, , 79-139.	1.0	57
95	Human Cardiac Function Simulator for the Optimal Design of a Novel Annuloplasty Ring with a Sub-valvular Element for Correction of Ischemic Mitral Regurgitation. <i>Cardiovascular Engineering and Technology</i> , 2015, 6, 105-116.	1.7	56
96	The importance of mechano-electrical feedback and inertia in cardiac electromechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 320, 352-368.	6.7	56
97	An ALE formulation based on spatial and material settings of continuum mechanics. Part 2: Classification and applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 4223-4245.	6.7	54
98	Growth and remodeling of the left ventricle: A case study of myocardial infarction and surgical ventricular restoration. <i>Mechanics Research Communications</i> , 2012, 42, 134-141.	1.9	54
99	Data-driven modeling of COVID-19's "Lessons learned". <i>Extreme Mechanics Letters</i> , 2020, 40, 100921.	4.2	54
100	Morphoelastic control of gastro-intestinal organogenesis: Theoretical predictions and numerical insights. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 78, 493-510.	4.9	53
101	Magnetic resonance elastography of the brain: A comparison between pigs and humans. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 77, 702-710.	3.1	53
102	The generalized Hill model: A kinematic approach towards active muscle contraction. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 72, 20-39.	4.9	51
103	Size and curvature regulate pattern selection in the mammalian brain. <i>Extreme Mechanics Letters</i> , 2015, 4, 193-198.	4.2	51
104	Symmetry Breaking in Wrinkling Patterns: Gyri Are Universally Thicker than Sulci. <i>Physical Review Letters</i> , 2018, 121, 228002.	8.0	51
105	A thermodynamically consistent approach to microplane theory. Part II. Dissipation and inelastic constitutive modeling. <i>International Journal of Solids and Structures</i> , 2001, 38, 2933-2952.	2.7	50
106	On deformational and configurational mechanics of micromorphic hyperelasticity " Theory and computation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 4027-4044.	6.7	50
107	Modeling and simulation of viscous electro-active polymers. <i>European Journal of Mechanics, A/Solids</i> , 2014, 48, 112-128.	3.8	50
108	Bayesian Physics Informed Neural Networks for real-world nonlinear dynamical systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 402, 115346.	6.7	50

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109	Parameter identification of gradient enhanced damage models with the finite element method. <i>European Journal of Mechanics, A/Solids</i> , 1999, 18, 819-835.	3.8	49
110	Rigid, Complete Annuloplasty Rings Increase Anterior Mitral Leaflet Strains in the Normal Beating Ovine Heart. <i>Circulation</i> , 2011, 124, S81-96.	9.3	48
111	Tri-layer wrinkling as a mechanism for anchoring center initiation in the developing cerebellum. <i>Soft Matter</i> , 2016, 12, 5613-5620.	2.8	48
112	Active stiffening of mitral valve leaflets in the beating heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2009, 296, H1766-H1773.	3.4	47
113	Computational aspects of growth-induced instabilities through eigenvalue analysis. <i>Computational Mechanics</i> , 2015, 56, 405-420.	4.0	47
114	On the implementation of finite deformation gradient-enhanced damage models. <i>Computational Mechanics</i> , 2019, 64, 847-877.	4.0	47
115	Global and local mobility as a barometer for COVID-19 dynamics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 651-669.	3.0	46
116	On skin microrelief and the emergence of expression micro-wrinkles. <i>Soft Matter</i> , 2018, 14, 1292-1300.	2.8	45
117	Computational modeling of electrochemical coupling: A novel finite element approach towards ionic models for cardiac electrophysiology. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 3139-3158.	6.7	43
118	On spatial and material settings of thermo-hyperelastodynamics for open systems. <i>Acta Mechanica</i> , 2003, 160, 179-217.	2.1	42
119	Computational modeling of muscular thin films for cardiac repair. <i>Computational Mechanics</i> , 2009, 43, 535-544.	4.0	42
120	Characterization of living skin using multi-view stereo and isogeometric analysis. <i>Acta Biomaterialia</i> , 2014, 10, 4822-4831.	8.8	42
121	Spatially-extended nucleation-aggregation-fragmentation models for the dynamics of prion-like neurodegenerative protein-spreading in the brain and its connectome. <i>Journal of Theoretical Biology</i> , 2020, 486, 110102.	1.7	42
122	A three-constituent damage model for arterial clamping in computer-assisted surgery. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013, 12, 123-136.	3.0	41
123	On the Role of Mechanics in Chronic Lung Disease. <i>Materials</i> , 2013, 6, 5639-5658.	3.0	41
124	Computational modeling of hypertensive growth in the human carotid artery. <i>Computational Mechanics</i> , 2014, 53, 1183-1196.	4.0	41
125	Secondary instabilities modulate cortical complexity in the mammalian brain. <i>Philosophical Magazine</i> , 2015, 95, 3244-3256.	1.6	41
126	A computational model that predicts reverse growth in response to mechanical unloading. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 217-229.	3.0	41

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127	Computational modeling of chemo-bio-mechanical coupling: a systems-biology approach toward wound healing. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 13-30.	1.7	41
128	Wrinkling instabilities in soft bilayered systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160163.	3.5	41
129	The mechanics of decompressive craniectomy: Personalized simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 314, 180-195.	6.7	40
130	Simulation of strain localization with gradient enhanced damage models. <i>Computational Materials Science</i> , 1999, 16, 176-185.	3.1	39
131	Towards the algorithmic treatment of 3D strong discontinuities. <i>Communications in Numerical Methods in Engineering</i> , 2006, 23, 97-108.	1.3	39
132	Computational modeling of skin: Using stress profiles as predictor for tissue necrosis in reconstructive surgery. <i>Computers and Structures</i> , 2014, 143, 32-39.	4.5	39
133	Patient-Specific Airway Wall Remodeling in Chronic Lung Disease. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2538-2551.	2.6	39
134	Time-dependent fibre reorientation of transversely isotropic continua—Finite element formulation and consistent linearization. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 73, 1413-1433.	2.9	38
135	Natural element analysis of the Cahn–Hilliard phase-field model. <i>Computational Mechanics</i> , 2010, 46, 471-493.	4.0	38
136	On the mechanics of growing thin biological membranes. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 63, 128-140.	4.9	37
137	Elastosis during airway wall remodeling explains multiple co-existing instability patterns. <i>Journal of Theoretical Biology</i> , 2016, 403, 209-218.	1.7	37
138	Microtubule Polymerization and Cross-Link Dynamics Explain Axonal Stiffness and Damage. <i>Biophysical Journal</i> , 2018, 114, 201-212.	0.5	37
139	On high heels and short muscles: A multiscale model for sarcomere loss in the gastrocnemius muscle. <i>Journal of Theoretical Biology</i> , 2015, 365, 301-310.	1.7	36
140	Regional stiffening of the mitral valve anterior leaflet in the beating ovine heart. <i>Journal of Biomechanics</i> , 2009, 42, 2697-2701.	2.1	35
141	COVID-19 dynamics across the US: A deep learning study of human mobility and social behavior. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 382, 113891.	6.7	35
142	On the mechanics of thin films and growing surfaces. <i>Mathematics and Mechanics of Solids</i> , 2013, 18, 561-575.	2.4	34
143	Computational modelling of electrocardiograms: repolarisation and T-wave polarity in the human heart. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 986-996.	1.7	34
144	Partial LVAD Restores Ventricular Outputs and Normalizes LV but not RV Stress Distributions in the Acutely Failing Heart in Silico. <i>International Journal of Artificial Organs</i> , 2016, 39, 421-430.	1.5	34

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145	A virtual sizing tool for mitral valve annuloplasty. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e02788.	2.2	34
146	Automated model discovery for human brain using Constitutive Artificial Neural Networks. <i>Acta Biomaterialia</i> , 2023, 160, 134-151.	8.8	34
147	Aspects of non-associated single crystal plasticity: Influence of non-schmid effects and localization analysis. <i>International Journal of Solids and Structures</i> , 1998, 35, 4437-4456.	2.7	33
148	Computational modeling of electrocardiograms: A finite element approach toward cardiac excitation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010, 26, 524-533.	2.2	33
149	Computational optogenetics: A novel continuum framework for the photoelectrochemistry of living systems. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 1158-1178.	4.9	33
150	Systems biology and mechanics of growth. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2015, 7, 401-412.	6.7	33
151	Material forces in open system mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 2357-2381.	6.7	32
152	Multi-view stereo analysis reveals anisotropy of prestrain, deformation, and growth in living skin. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015, 14, 1007-1019.	3.0	32
153	Neuronal Oscillations on Evolving Networks: Dynamics, Damage, Degradation, Decline, Dementia, and Death. <i>Physical Review Letters</i> , 2020, 125, 128102.	8.0	32
154	Diamond elements: a finite element/discrete-mechanics approximation scheme with guaranteed optimal convergence in incompressible elasticity. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 72, 253-294.	2.9	31
155	The phenomenon of twisted growth: humeral torsion in dominant arms of high performance tennis players. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 83-93.	1.7	31
156	Modeling molecular mechanisms in the axon. <i>Computational Mechanics</i> , 2017, 59, 523-537.	4.0	31
157	Predicting drug-induced arrhythmias by multiscale modeling. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2964.	2.2	31
158	Multi-fidelity classification using Gaussian processes: Accelerating the prediction of large-scale computational models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 357, 112602.	6.7	31
159	A comparison of discrete granular material models with continuous microplane formulations. <i>Granular Matter</i> , 2000, 2, 113-121.	2.2	30
160	A fully implicit finite element method for bidomain models of cardiac electrophysiology. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012, 15, 645-656.	1.7	30
161	Multiscale characterization of heart failure. <i>Acta Biomaterialia</i> , 2019, 86, 66-76.	8.8	30
162	How Do Annuloplasty Rings Affect Mitral Annular Strains in the Normal Beating Ovine Heart?. <i>Circulation</i> , 2012, 126, S231-8.	9.3	29

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163	Computational modeling of chemo-electro-mechanical coupling: A novel implicit monolithic finite element approach. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2013, 29, 1104-1133.	2.2	29
164	Dimensional, Geometrical, and Physical Constraints in Skull Growth. <i>Physical Review Letters</i> , 2017, 118, 248101.	8.0	29
165	Revisiting the wrinkling of elastic bilayers: linear analysis. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180076.	3.5	29
166	Anterior Mitral Leaflet Curvature During the Cardiac Cycle in the Normal Ovine Heart. <i>Circulation</i> , 2010, 122, 1683-1689.	9.3	28
167	Mechanics of the Mitral Annulus in Chronic Ischemic Cardiomyopathy. <i>Annals of Biomedical Engineering</i> , 2013, 41, 2171-2180.	2.6	27
168	Predicting the cardiac toxicity of drugs using a novel multiscale exposure-response simulator. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2018, 21, 232-246.	1.7	27
169	Modeling the Axon as an Active Partner with the Growth Cone in Axonal Elongation. <i>Biophysical Journal</i> , 2018, 115, 1783-1795.	0.5	27
170	Classifying Drugs by their Arrhythmogenic Risk Using Machine Learning. <i>Biophysical Journal</i> , 2020, 118, 1165-1176.	0.5	27
171	On the convexity of transversely isotropic chain network models. <i>Philosophical Magazine</i> , 2006, 86, 3241-3258.	1.6	26
172	A note on the generation of periodic granular microstructures based on grain size distributions. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2008, 32, 509-522.	3.4	26
173	Mathematical modeling of collagen turnover in biological tissue. <i>Journal of Mathematical Biology</i> , 2013, 67, 1765-1793.	1.9	26
174	Unfolding the brain. <i>Nature Physics</i> , 2016, 12, 533-534.	11.8	26
175	A physical multifield model predicts the development of volume and structure in the human brain. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 563-576.	4.9	26
176	Application of the material force method to thermo-hyperelasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 3303-3325.	6.7	25
177	Computational Modeling of Mineral Unmixing and Growth. <i>Computational Mechanics</i> , 2007, 39, 439-451.	4.0	25
178	On local tracking algorithms for the simulation of three-dimensional discontinuities. <i>Computational Mechanics</i> , 2008, 42, 395-406.	4.0	25
179	Kinematics of cardiac growth: In vivo characterization of growth tensors and strains. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 8, 165-177.	3.1	25
180	Tau-ism: The Yin and Yang of Microtubule Sliding, Detachment, and Rupture. <i>Biophysical Journal</i> , 2015, 109, 2215-2217.	0.5	25

#	ARTICLE	IF	CITATIONS
181	Stress Singularities in Swelling Soft Solids. <i>Physical Review Letters</i> , 2016, 117, 138001.	8.0	25
182	Computational modeling of acute myocardial infarction. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 1107-1115.	1.7	25
183	Bulging Brains. <i>Journal of Elasticity</i> , 2017, 129, 197-212.	2.0	25
184	The interplay of biochemical and biomechanical degeneration in Alzheimer's disease. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 352, 369-388.	6.7	25
185	Active contraction of cardiac muscle: In vivo characterization of mechanical activation sequences in the beating heart. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 1167-1176.	3.1	24
186	Anisotropic density growth of bone: A computational micro-sphere approach. <i>International Journal of Solids and Structures</i> , 2012, 49, 1928-1946.	2.7	24
187	Application of Finite Element Modeling to Optimize Flap Design with Tissue Expansion. <i>Plastic and Reconstructive Surgery</i> , 2014, 134, 785-792.	1.6	24
188	Improving tissue expansion protocols through computational modeling. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 82, 224-234.	3.1	24
189	On the linearization of the microplane model. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 1998, 3, 343-364.	0.9	23
190	Anterior mitral leaflet curvature in the beating ovine heart: a case study using videofluoroscopic markers and subdivision surfaces. <i>Biomechanics and Modeling in Mechanobiology</i> , 2010, 9, 281-293.	3.0	23
191	Consistent formulation of the growth process at the kinematic and constitutive level for soft tissues composed of multiple constituents. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012, 15, 547-561.	1.7	23
192	Physical Biology of Axonal Damage. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 144.	3.8	23
193	The Incompatibility of Living Systems: Characterizing Growth-Induced Incompatibilities in Expanded Skin. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1734-1752.	2.6	22
194	Understanding the mechanical link between oriented cell division and cerebellar morphogenesis. <i>Soft Matter</i> , 2019, 15, 2204-2215.	2.8	22
195	Brittle fracture during folding of rocks: A finite element study. <i>Philosophical Magazine</i> , 2008, 88, 3245-3263.	1.6	21
196	A novel strategy to identify the critical conditions for growth-induced instabilities. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 29, 20-32.	3.1	21
197	A new sparse matrix vector multiplication graphics processing unit algorithm designed for finite element problems. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 102, 1784-1814.	2.9	21
198	Principal-stretch-based constitutive neural networks autonomously discover a subclass of Ogden models for human brain tissue. <i>Brain Multiphysics</i> , 2023, 4, 100066.	2.4	21

#	ARTICLE	IF	CITATIONS
199	Pilot Findings of Brain Displacements and Deformations during Roller Coaster Rides. <i>Journal of Neurotrauma</i> , 2017, 34, 3198-3205.	3.6	20
200	Computational modeling of healing: an application of the material force method. <i>Biomechanics and Modeling in Mechanobiology</i> , 2004, 2, 187-203.	3.0	19
201	Growth and remodeling play opposing roles during postnatal human heart valve development. <i>Scientific Reports</i> , 2018, 8, 1235.	3.4	19
202	Modeling neurodegeneration in chronic traumatic encephalopathy using gradient damage models. <i>Computational Mechanics</i> , 2019, 64, 1375-1387.	4.0	19
203	Network Diffusion Modeling Explains Longitudinal Tau PET Data. <i>Frontiers in Neuroscience</i> , 2020, 14, 566876.	2.9	19
204	A Finite Element Model for Mixed Porohyperelasticity with Transport, Swelling, and Growth. <i>PLoS ONE</i> , 2016, 11, e0152806.	2.5	18
205	Computational modelling of thermal impact welded PEEK/steel single lap tensile specimens. <i>Computational Materials Science</i> , 2008, 41, 287-296.	3.1	17
206	Bayesian Physics-Based Modeling of Tau Propagation in Alzheimer's Disease. <i>Frontiers in Physiology</i> , 2021, 12, 702975.	2.8	17
207	Predicting brain atrophy from tau pathology: a summary of clinical findings and their translation into personalized models. <i>Brain Multiphysics</i> , 2021, 2, 100039.	2.4	17
208	Interpreting Activation Mapping of Atrial Fibrillation: A Hybrid Computational/Physiological Study. <i>Annals of Biomedical Engineering</i> , 2018, 46, 257-269.	2.6	16
209	Automated model discovery for skin: Discovering the best model, data, and experiment. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2023, 410, 116007.	6.7	16
210	On automated model discovery and a universal material subroutine for hyperelastic materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2024, 418, 116534.	6.7	16
211	Failure analysis of elasto-plastic material models on different levels of observation. <i>International Journal of Solids and Structures</i> , 2000, 37, 7259-7280.	2.7	15
212	Towards the treatment of boundary conditions for global crack path tracking in three-dimensional brittle fracture. <i>Computational Mechanics</i> , 2009, 45, 91-107.	4.0	15
213	Molecular mechanisms of chronic traumatic encephalopathy. <i>Current Opinion in Biomedical Engineering</i> , 2017, 1, 23-30.	3.7	15
214	Modeling the life cycle of the human brain. <i>Current Opinion in Biomedical Engineering</i> , 2020, 15, 16-25.	3.7	15
215	Sex Differences in Drug-Induced Arrhythmogenesis. <i>Frontiers in Physiology</i> , 2021, 12, 708435.	2.8	15
216	Structural optimization by simultaneous equilibration of spatial and material forces. <i>Communications in Numerical Methods in Engineering</i> , 2005, 21, 433-442.	1.3	14

#	ARTICLE	IF	CITATIONS
217	Integration of liver behaviour in FE simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 83-85.	1.7	14
218	Human pluripotent stem cell tools for cardiac optogenetics. , 2014, 2014, 6171-4.		14
219	Determining the Differential Effects of Stretch and Growth in Tissue-Expanded Skin: Combining Isogeometric Analysis and Continuum Mechanics in a Porcine Model. Dermatologic Surgery, 2018, 44, 48-52.	0.9	14
220	Discovering the mechanics of artificial and real meat. Computer Methods in Applied Mechanics and Engineering, 2023, 415, 116236.	6.7	14
221	Viscoelasticity of the axon limits stretch-mediated growth. Computational Mechanics, 2020, 65, 587-595.	4.0	13
222	IN VITRO/IN SILICO CHARACTERIZATION OF ACTIVE AND PASSIVE STRESSES IN CARDIAC MUSCLE. International Journal for Multiscale Computational Engineering, 2012, 10, 171-188.	1.3	13
223	Automated model discovery for muscle using constitutive recurrent neural networks. Journal of the Mechanical Behavior of Biomedical Materials, 2023, 145, 106021.	3.1	13
224	Computational modeling of bone density profiles in response to gait: a subject-specific approach. Biomechanics and Modeling in Mechanobiology, 2012, 11, 379-390.	3.0	12
225	Predicting critical drug concentrations and torsadogenic risk using a multiscale exposure-response simulator. Progress in Biophysics and Molecular Biology, 2019, 144, 61-76.	3.0	11
226	Folding drives cortical thickness variations. European Physical Journal: Special Topics, 2020, 229, 2757-2778.	2.6	11
227	An illustration of the equivalence of the loss of ellipticity conditions in spatial and material settings of hyperelasticity. European Journal of Mechanics, A/Solids, 2006, 25, 199-214.	3.8	10
228	The Pursuit of Engineering the Ideal Heart Valve Replacement or Repair: A Special Issue of the Annals of Biomedical Engineering. Annals of Biomedical Engineering, 2017, 45, 307-309.	2.6	10
229	Discovering a reaction-diffusion model for Alzheimer's disease by combining PINNs with symbolic regression. Computer Methods in Applied Mechanics and Engineering, 2024, 419, 116647.	6.7	10
230	Characterisation of electrophysiological conduction in cardiomyocyte co-cultures using co-occurrence analysis. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 185-197.	1.7	9
231	The mechanics of decompressive craniectomy: Bulging in idealized geometries. Journal of the Mechanics and Physics of Solids, 2016, 96, 572-590.	4.9	9
232	Growth and remodeling in the pulmonary autograft: Computational evaluation using kinematic growth models and constrained mixture theory. International Journal for Numerical Methods in Biomedical Engineering, 2022, 38, e3545.	2.2	9
233	Correlating tau pathology to brain atrophy using a physics-based Bayesian model. Engineering With Computers, 2022, 38, 3867-3877.	5.8	9
234	Weekly Time Course of Neuro-Muscular Adaptation to Intensive Strength Training. Frontiers in Physiology, 2017, 8, 329.	2.8	8

#	ARTICLE	IF	CITATIONS
235	Do annuloplasty rings designed to treat ischemic/functional mitral regurgitation alter left-ventricular dimensions in the acutely ischemic ovine heart?. Journal of Thoracic and Cardiovascular Surgery, 2019, 158, 1058-1068.	2.7	8
236	Correlating the microstructural architecture and macrostructural behaviour of the brain. Acta Biomaterialia, 2022, 151, 379-395.	8.8	8
237	Acceleration insensitive encapsulated silicon microresonator. Applied Physics Letters, 2008, 93, 234103.	3.2	7
238	Region- and loading-specific finite viscoelasticity of human brain tissue. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800169.	0.2	7
239	Micro-structurally Based Kinematic Approaches to Electromechanics of the Heart. , 2013, , 175-187.		7
240	How drugs modulate the performance of the human heart. Computational Mechanics, 2022, 69, 1397-1411.	4.0	7
241	Microplane modelling and particle modelling of cohesive-frictional materials. Lecture Notes in Physics, 2001, , 31-46.	0.0	6
242	A hyperelastodynamic ALE formulation based on referential, spatial and material settings of continuum mechanics. Acta Mechanica, 2005, 174, 201-222.	2.1	6
243	Connectomics of neurodegeneration. Nature Neuroscience, 2019, 22, 1200-1202.	14.5	6
244	On the Multiscale Computation of Confined Granular Media. , 2009, , 121-133.		6
245	A Simulation Tool for Physics-Informed Control of Biomimetic Soft Robotic Arms. IEEE Robotics and Automation Letters, 2023, 8, 936-943.	5.2	6
246	On sparse regression, L_1 -regularization, and automated model discovery. International Journal for Numerical Methods in Engineering, 2024, 125, .	2.9	6
247	Quantification of Strain in a Porcine Model of Skin Expansion Using Multi-View Stereo and Isogeometric Kinematics. Journal of Visualized Experiments, 2017, , .	0.3	5
248	Mechanics of axon growth and damage: A systematic review of computational models. Seminars in Cell and Developmental Biology, 2023, 140, 13-21.	5.4	5
249	Bayesian design optimization of biomimetic soft actuators. Computer Methods in Applied Mechanics and Engineering, 2023, 408, 115939.	6.7	5
250	Visualization of Particle Interactions in Granular Media. IEEE Transactions on Visualization and Computer Graphics, 2008, 14, 1110-1125.	4.5	4
251	A computational model to predict cell traction-mediated prestretch in the mitral valve. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 1174-1185.	1.7	4
252	Challenges and perspectives in brain tissue testing and modeling. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900269.	0.2	4

#	ARTICLE	IF	CITATIONS
253	Effects of B.1.1.7 and B.1.351 on COVID-19 Dynamics: A Campus Reopening Study. Archives of Computational Methods in Engineering, 2021, 28, 4225-4236.	10.6	4
254	How viscous is the beating heart? Insights from a computational study. Computational Mechanics, 2022, 70, 565-579.	4.0	4
255	Electromechanics of Cardiac Tissue: A Unified Approach to the Fully Coupled Excitation-Contraction Problem. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 159-160.	0.2	3
256	Mechanics in biology: cells and tissues. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 3335-3337.	3.5	3
257	A three-field, bi-domain based approach to the strongly coupled electromechanics of the heart. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 931-934.	0.2	3
258	Modeling and Simulation of Remodeling in Soft Biological Tissues. , 2006, , 77-89.		3
259	A finite element method for cohesive crack modelling. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 350-351.	0.2	2
260	Application of a Viscoelastic Material Model in Electro-Mechanics. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 387-388.	0.2	2
261	Mechanical Cues in Spinal Cord Injury. Biophysical Journal, 2018, 115, 751-753.	0.5	2
262	A Framework for Evaluating Myocardial Stiffness Using 3D-Printed Heart Phantoms. Lecture Notes in Computer Science, 2021, , 305-314.	1.0	2
263	Computational Homogenization of Confined Frictional Granular Matter. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 157-169.	0.0	2
264	Title is missing!. , 2018, , .		2
265	Rheology of growing axons. Physical Review Research, 2022, 4, .	3.6	2
266	Best-in-class modeling: A novel strategy to discover constitutive models for soft matter systems. Extreme Mechanics Letters, 2024, 70, 102181.	4.2	2
267	Minimal Design of the Elephant Trunk as an Active Filament. Physical Review Letters, 2024, 132, .	8.0	2
268	Automated model discovery for human cardiac tissue: Discovering the best model and parameters. Computer Methods in Applied Mechanics and Engineering, 2024, 428, 117078.	6.7	2
269	Modelling of Mass Changes in Anisotropic Materials. Proceedings in Applied Mathematics and Mechanics, 2005, 5, 299-300.	0.2	1
270	Material Force Method. Continuum Damage & Thermo-Hyperelasticity. , 2005, , 95-104.		1

#	ARTICLE	IF	CITATIONS
271	Simulation of Thermal Impact Welded Lightweight Structures. Proceedings in Applied Mathematics and Mechanics, 2006, 6, 201-202.	0.2	1
272	Failure of granular materials at different scales - microscale approach. Proceedings in Applied Mathematics and Mechanics, 2006, 6, 399-400.	0.2	1
273	On the Application of Hansbo's Method for Interface Problems. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2007, , 255-265.	0.0	1
274	In vitro and In silico Optogenetic Control of Differentiated Human Pluripotent Stem Cells. Biophysical Journal, 2011, 100, 368a.	0.5	1
275	A mechanical approach to explain cortical folding phenomena in healthy and diseased brains. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 101-102.	0.2	1
276	Primary and secondary instabilities in soft bilayered systems. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 281-282.	0.2	1
277	Modeling Tissue Expansion with Isogeometric Analysis. Plastic and Reconstructive Surgery, 2015, 136, 31-32.	1.6	1
278	Response to Letters Regarding Article, "Segmental Aortic Stiffening Contributes to Experimental Abdominal Aortic Aneurysm Development". Circulation, 2016, 133, e11-2.	9.3	1
279	Special Issue on Uncertainty Quantification, Machine Learning, and Data-Driven Modeling of Biological Systems. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112832.	6.7	1
280	Outbreak dynamics of COVID-19 in Europe and the effect of travel restrictions. , 0, .		1
281	Gaussian Approximations in the Stochastic Theory of Spontaneous Ignition of Coal Particles. Nonlinear Oscillations, 2004, 7, 109-112.	0.1	0
282	Theory and implementation of orthotropic materials in growing continua. Proceedings in Applied Mathematics and Mechanics, 2004, 4, 320-321.	0.2	0
283	Computational Spatial and Material Settings of Continuum Mechanics. An Arbitrary Lagrangian Eulerian Formulation. , 2005, , 115-125.		0
284	On Well Posedness in Continuum Interface Problems. Proceedings in Applied Mathematics and Mechanics, 2005, 5, 369-370.	0.2	0
285	Theory and Implementation of Time-Dependent Fibre Reorientation in Transversely Isotropic Materials. Proceedings in Applied Mathematics and Mechanics, 2006, 6, 131-132.	0.2	0
286	Modelling and Computation of 3D Discontinuities in Solids. Proceedings in Applied Mathematics and Mechanics, 2006, 6, 383-384.	0.2	0
287	Exploring Cellular Tensegrity: Physical Modeling and Computational Simulation. , 2008, , .		0
288	Critical Loading During Serve: Modeling Stress-Induced Bone Growth in Performance Tennis Players. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
289	Electrophysiological Modeling of Channelrhodopsin-2 in Cardiac Cells. Biophysical Journal, 2011, 100, 437a.	0.5	0
290	Modeling Growth in Tissue Expansion. , 2012, , .		0
291	Computational Modelling of Optogenetics in Cardiac Cells. , 2012, , .		0
292	Chronic Mitral Valve Leaflet Growth Following Myocardial Infarction. , 2012, , .		0
293	Finite Element Modeling of Flap Design After Skin Expansion. , 2012, , .		0
294	Cardiovascular Tissue Damage: An Experimental and Computational Framework. , 2013, , 129-148.		0
295	Frontiers in Finite-Deformation Electromechanics. European Journal of Mechanics, A/Solids, 2014, 48, 1-2.	3.8	0
296	Towards an instrumented tissue expander. , 2014, , .		0
297	Terminating atrial fibrillation by cooling the heart. Heart Rhythm, 2016, 13, 2259-2260.	0.8	0
298	Editorial overview: Biomechanics and mechanobiology of tissue growth and remodeling: Current opinions. Current Opinion in Biomedical Engineering, 2020, 15, A1-A2.	3.7	0
299	Modeling and simulation of infectious diseases. Computational Mechanics, 2020, 66, 1053-1053.	4.0	0
300	Nervous Tissue Stiffens Postinjury. Biophysical Journal, 2020, 118, 276-278.	0.5	0
301	First Attempts Towards the Computational Simulation of Novel Stem-Cell Based Post Infarct Therapies. , 2008, , .		0
302	How to Treat the Loss of Beat: Modeling and Simulation of Ventricular Growth and Remodeling and Novel Post-Infarction Therapies. , 2008, , .		0
303	Quantification of In Vivo Stresses in the Ovine Anterior Mitral Valve Leaflet. , 2008, , .		0
304	Computational Simulation of Traveling Arrhythmic Waves in Myocardial Tissue. , 2009, , .		0
305	Imaging-Based Computation of the Dynamics of Pelvic Floor Deformation and Strain Visualization Analysis. Lecture Notes in Computer Science, 2010, , 604-612.	1.0	0
306	Cahn-Hilliard Generalized Diffusion Modeling Using the Natural Element Method. Advanced Structured Materials, 2011, , 325-337.	0.0	0

#	ARTICLE	IF	CITATIONS
307	Finite Element Modeling of Mechanically Driven Skin Growth due to Different Expander Geometries. , 2011, , .		0
308	In-Vivo Dynamic Strains of the Ovine Anterior Mitral Valve Leaflet. , 2011, , .		0
309	On the linearization of the microplane model. International Journal for Numerical and Analytical Methods in Geomechanics, 1998, 3, 343-364.	0.9	0
310	Evaluating Passive Myocardial Stiffness Using in vivo cine, cDTI, and Tagged MRI. Lecture Notes in Computer Science, 2023, , 527-536.	1.0	0
311	Minimal activation with maximal reach: Reachability clouds of bio-inspired slender manipulators. Extreme Mechanics Letters, 2024, 71, 102207.	4.2	0
312	Automated data-driven discovery of material models based on symbolic regression: A case study on the human brain cortex. Acta Biomaterialia, 2024, , .	8.8	0
313	A universal material model subroutine for soft matter systems. Engineering With Computers, 0, , .	5.8	0
314	Automated model discovery for textile structures: The unique mechanical signature of warp knitted fabrics. Acta Biomaterialia, 2024, , .	8.8	0