Ellen Kuhl

List of Publications by Year
in descending order

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287 papers	15,334 citations	14644 66 h-index	28275 105 g-index
318 all docs	318 docs citations	318 times ranked	10977 citing authors

#	Article	IF	Citations
1	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.	1.0	5
2	Sex Matters: A Comprehensive Comparison of Female and Male Hearts. Frontiers in Physiology, 2022, 13, 831179.	1.3	50
3	How drugs modulate the performance of the human heart. Computational Mechanics, 2022, 69, 1397-1411.	2.2	5
4	How viscous is the beating heart? Insights from a computational study. Computational Mechanics, 2022, 70, 565-579.	2.2	3
5	Mechanics of axon growth and damage: A systematic review of computational models. Seminars in Cell and Developmental Biology, 2022, , .	2.3	5
6	Correlating tau pathology to brain atrophy using a physics-based Bayesian model. Engineering With Computers, 2022, 38, 3867-3877.	3.5	6
7	Bayesian Physics Informed Neural Networks for real-world nonlinear dynamical systems. Computer Methods in Applied Mechanics and Engineering, 2022, 402, 115346.	3.4	37
8	Multiscale Modeling Meets Machine Learning: What Can We Learn?. Archives of Computational Methods in Engineering, 2021, 28, 1017-1037.	6.0	164
9	Are college campuses superspreaders? A data-driven modeling study. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 1136-1145.	0.9	67
10	Global and local mobility as a barometer for COVID-19 dynamics. Biomechanics and Modeling in Mechanobiology, 2021, 20, 651-669.	1.4	42
11	A Framework for Evaluating Myocardial Stiffness Using 3D-Printed Heart Phantoms. Lecture Notes in Computer Science, 2021, , 305-314.	1.0	2
12	Precision medicine in human heart modeling. Biomechanics and Modeling in Mechanobiology, 2021, 20, 803-831.	1.4	88
13	Bayesian Physics-Based Modeling of Tau Propagation in Alzheimer's Disease. Frontiers in Physiology, 2021, 12, 702975.	1.3	14
14	COVID-19 dynamics across the US: A deep learning study of human mobility and social behavior. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113891.	3.4	32
15	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.	6.0	3
16	Sex Differences in Drug-Induced Arrhythmogenesis. Frontiers in Physiology, 2021, 12, 708435.	1.3	12
17	Predicting brain atrophy from tau pathology: a summary of clinical findings and their translation into personalized models. Brain Multiphysics, 2021, 2, 100039.	0.8	13
18	Fifty Shades of Brain: A Review on the Mechanical Testing and Modeling of Brain Tissue. Archives of Computational Methods in Engineering, 2020, 27, 1187-1230.	6.0	215

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19	Viscoelasticity of the axon limits stretch-mediated growth. Computational Mechanics, 2020, 65, 587-595.	2.2	13
20	Modeling the life cycle of the human brain. Current Opinion in Biomedical Engineering, 2020, 15, 16-25.	1.8	13
21	Towards microstructure-informed material models for human brain tissue. Acta Biomaterialia, 2020, 104, 53-65.	4.1	57
22	Spatially-extended nucleation-aggregation-fragmentation models for the dynamics of prion-like neurodegenerative protein-spreading in the brain and its connectome. Journal of Theoretical Biology, 2020, 486, 110102.	0.8	35
23	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.	3.4	58
24	Protein-protein interactions in neurodegenerative diseases: A conspiracy theory. PLoS Computational Biology, 2020, 16, e1008267.	1.5	35
25	The reproduction number of COVID-19 and its correlation with public health interventions. Computational Mechanics, 2020, 66, 1035-1050.	2.2	143
26	Is it safe to lift COVID-19 travel bans? The Newfoundland story. Computational Mechanics, 2020, 66, 1081-1092.	2.2	54
27	Neuronal Oscillations on Evolving Networks: Dynamics, Damage, Degradation, Decline, Dementia, and Death. Physical Review Letters, 2020, 125, 128102.	2.9	28
28	Modeling and simulation of infectious diseases. Computational Mechanics, 2020, 66, 1053-1053.	2.2	0
29	Network Diffusion Modeling Explains Longitudinal Tau PET Data. Frontiers in Neuroscience, 2020, 14, 566876.	1.4	15
30	Folding drives cortical thickness variations. European Physical Journal: Special Topics, 2020, 229, 2757-2778.	1.2	9
31	Outbreak dynamics of COVID-19 in Europe and the effect of travel restrictions. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 710-717.	0.9	234
32	Physics-Informed Neural Networks for Cardiac Activation Mapping. Frontiers in Physics, 2020, 8, .	1.0	174
33	Nervous Tissue Stiffens Postinjury. Biophysical Journal, 2020, 118, 276-278.	0.2	0
34	Classifying Drugs by their Arrhythmogenic Risk Using Machine Learning. Biophysical Journal, 2020, 118, 1165-1176.	0.2	23
35	Outbreak dynamics of COVID-19 in China and the United States. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2179-2193.	1.4	122
36	Data-driven modeling of COVID-19â€"Lessons learned. Extreme Mechanics Letters, 2020, 40, 100921.	2.0	49

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37	Growth and remodelling of living tissues: perspectives, challenges and opportunities. Journal of the Royal Society Interface, 2019, 16, 20190233.	1.5	142
38	Connectomics of neurodegeneration. Nature Neuroscience, 2019, 22, 1200-1202.	7.1	5
39	Prion-like spreading of Alzheimerâ€™s disease within the brainâ€™s connectome. Journal of the Royal Society Interface, 2019, 16, 20190356.	1.5	71
40	Multi-fidelity classification using Gaussian processes: Accelerating the prediction of large-scale computational models. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112602.	3.4	31
41	Multiscale characterization of heart failure. Acta Biomaterialia, 2019, 86, 66-76.	4.1	29
42	A computational model to predict cell traction-mediated prestretch in the mitral valve. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 1174-1185.	0.9	4
43	Mechanical aspects of cortical folding. IBRO Reports, 2019, 6, S15.	0.3	0
44	Using machine learning to characterize heart failure across the scales. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1987-2001.	1.4	53
45	The interplay of biochemical and biomechanical degeneration in Alzheimerâ€™s disease. Computer Methods in Applied Mechanics and Engineering, 2019, 352, 369-388.	3.4	23
46	Modeling neurodegeneration in chronic traumatic encephalopathy using gradient damage models. Computational Mechanics, 2019, 64, 1375-1387.	2.2	17
47	Revisiting the wrinkling of elastic bilayersÂI: linear analysis. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180076.	1.6	25
48	Machine learning in drug development: Characterizing the effect of 30 drugs on the QT interval using Gaussian process regression, sensitivity analysis, and uncertainty quantification. Computer Methods in Applied Mechanics and Engineering, 2019, 348, 313-333.	3.4	76
49	Understanding the mechanical link between oriented cell division and cerebellar morphogenesis. Soft Matter, 2019, 15, 2204-2215.	1.2	22
50	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.	0.4	8
51	On the implementation of finite deformation gradient-enhanced damage models. Computational Mechanics, 2019, 64, 847-877.	2.2	41
52	Challenges and perspectives in brain tissue testing and modeling. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900269.	0.2	4
53	Integrating machine learning and multiscale modelingâ€”perspectives, challenges, and opportunities in the biological, biomedical, and behavioral sciences. Npj Digital Medicine, 2019, 2, 115.	5.7	319
54	The Shrinking Brain: Cerebral Atrophy Following Traumatic Brain Injury. Annals of Biomedical Engineering, 2019, 47, 1941-1959.	1.3	79

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55	Predicting critical drug concentrations and torsadogenic risk using a multiscale exposure-response simulator. Progress in Biophysics and Molecular Biology, 2019, 144, 61-76.	1.4	11
56	A physics-based model explains the prion-like features of neurodegeneration in Alzheimerâ€™s disease, Parkinsonâ€™s disease, and amyotrophic lateral sclerosis. Journal of the Mechanics and Physics of Solids, 2019, 124, 264-281.	2.3	83
57	Predicting the cardiac toxicity of drugs using a novel multiscale exposureâ€“response simulator. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 232-246.	0.9	25
58	Predicting drugâ€induced arrhythmias by multiscale modeling. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2964.	1.0	28
59	Growth and remodeling play opposing roles during postnatal human heart valve development. Scientific Reports, 2018, 8, 1235.	1.6	18
60	A physical multifield model predicts the development of volume and structure in the human brain. Journal of the Mechanics and Physics of Solids, 2018, 112, 563-576.	2.3	26
61	Microtubule Polymerization and Cross-Link Dynamics Explain Axonal Stiffness and Damage. Biophysical Journal, 2018, 114, 201-212.	0.2	37
62	On skin microrelief and the emergence of expression micro-wrinkles. Soft Matter, 2018, 14, 1292-1300.	1.2	44
63	Improving tissue expansion protocols through computational modeling. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 224-234.	1.5	22
64	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.	0.4	13
65	Passive Stretch Induces Structural and Functional Maturation of Engineered Heart Muscle as Predicted by Computational Modeling. Stem Cells, 2018, 36, 265-277.	1.4	111
66	Magnetic resonance elastography of the brain: A comparison between pigs and humans. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 702-710.	1.5	53
67	Interpreting Activation Mapping of Atrial Fibrillation: A Hybrid Computational/Physiological Study. Annals of Biomedical Engineering, 2018, 46, 257-269.	1.3	15
68	Regionâ€and loadingâ€specific finite viscoelasticity of human brain tissue. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800169.	0.2	7
69	Symmetry Breaking in Wrinkling Patterns: Gyri Are Universally Thicker than Sulci. Physical Review Letters, 2018, 121, 228002.	2.9	47
70	Modeling the Axon as an Active Partner with the Growth Cone in Axonal Elongation. Biophysical Journal, 2018, 115, 1783-1795.	0.2	23
71	Multiphysics of Prionlike Diseases: Progression and Atrophy. Physical Review Letters, 2018, 121, 158101.	2.9	83
72	Brain stiffens post mortem. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 84, 88-98.	1.5	70

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73	Physical Biology of Axonal Damage. Frontiers in Cellular Neuroscience, 2018, 12, 144.	1.8	23
74	Mechanical Cues in Spinal Cord Injury. Biophysical Journal, 2018, 115, 751-753.	0.2	2
75	Title is missing!. , 2018, , .		2
76	A virtual sizing tool for mitral valve annuloplasty. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e02788.	1.0	34
77	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.	1.3	10
78	The mechanical importance of myelination in the central nervous system. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 76, 119-124.	1.5	57
79	A family of hyperelastic models for human brain tissue. Journal of the Mechanics and Physics of Solids, 2017, 106, 60-79.	2.3	130
80	The importance of mechano-electrical feedback and inertia in cardiac electromechanics. Computer Methods in Applied Mechanics and Engineering, 2017, 320, 352-368.	3.4	55
81	Wrinkling instabilities in soft bilayered systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160163.	1.6	39
82	Molecular mechanisms of chronic traumatic encephalopathy. Current Opinion in Biomedical Engineering, 2017, 1, 23-30.	1.8	15
83	Modeling molecular mechanisms in the axon. Computational Mechanics, 2017, 59, 523-537.	2.2	30
84	Quantification of Strain in a Porcine Model of Skin Expansion Using Multi-View Stereo and Isogeometric Kinematics. Journal of Visualized Experiments, 2017, , .	0.2	4
85	Viscoelastic parameter identification of human brain tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 463-476.	1.5	124
86	Pilot Findings of Brain Displacements and Deformations during Roller Coaster Rides. Journal of Neurotrauma, 2017, 34, 3198-3205.	1.7	17
87	Dimensional, Geometrical, and Physical Constraints in Skull Growth. Physical Review Letters, 2017, 118, 248101.	2.9	26
88	Rheological characterization of human brain tissue. Acta Biomaterialia, 2017, 60, 315-329.	4.1	124
89	Bulging Brains. Journal of Elasticity, 2017, 129, 197-212.	0.9	24
90	Mechanical characterization of human brain tissue. Acta Biomaterialia, 2017, 48, 319-340.	4.1	423

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91	The mechanics of decompressive craniectomy: Personalized simulations. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 180-195.	3.4	39
92	Instabilities of soft films on compliant substrates. Journal of the Mechanics and Physics of Solids, 2017, 98, 350-365.	2.3	58
93	Weekly Time Course of Neuro-Muscular Adaptation to Intensive Strength Training. Frontiers in Physiology, 2017, 8, 329.	1.3	8
94	Partial LVAD Restores Ventricular Outputs and Normalizes LV but not RV Stress Distributions in the Acutely Failing Heart in Silico. International Journal of Artificial Organs, 2016, 39, 421-430.	0.7	32
95	A Finite Element Model for Mixed Porohyperelasticity with Transport, Swelling, and Growth. PLoS ONE, 2016, 11, e0152806.	1.1	18
96	Multiphysics and multiscale modelling, dataâ€“model fusion and integration of organ physiology in the clinic: ventricular cardiac mechanics. Interface Focus, 2016, 6, 20150083.	1.5	165
97	Tri-layer wrinkling as a mechanism for anchoring center initiation in the developing cerebellum. Soft Matter, 2016, 12, 5613-5620.	1.2	48
98	Elastosis during airway wall remodeling explains multiple co-existing instability patterns. Journal of Theoretical Biology, 2016, 403, 209-218.	0.8	35
99	Response to Letters Regarding Article, â€œSegmental Aortic Stiffening Contributes to Experimental Abdominal Aortic Aneurysm Developmentâ€. Circulation, 2016, 133, e11-2.	1.6	1
100	Stress Singularities in Swelling Soft Solids. Physical Review Letters, 2016, 117, 138001.	2.9	24
101	Brain stiffness increases with myelin content. Acta Biomaterialia, 2016, 42, 265-272.	4.1	194
102	The mechanics of decompressive craniectomy: Bulging in idealized geometries. Journal of the Mechanics and Physics of Solids, 2016, 96, 572-590.	2.3	9
103	Terminating atrial fibrillation by cooling the heart. Heart Rhythm, 2016, 13, 2259-2260.	0.3	0
104	Unfolding the brain. Nature Physics, 2016, 12, 533-534.	6.5	25
105	Using 3D Printing to Create Personalized Brain Models for Neurosurgical Training and Preoperative Planning. World Neurosurgery, 2016, 90, 668-674.	0.7	145
106	Generating Purkinje networks in the human heart. Journal of Biomechanics, 2016, 49, 2455-2465.	0.9	81
107	Constitutive Modeling of Brain Tissue: Current Perspectives. Applied Mechanics Reviews, 2016, 68, .	4.5	97
108	The Incompatibility of Living Systems: Characterizing Growth-Induced Incompatibilities in Expanded Skin. Annals of Biomedical Engineering, 2016, 44, 1734-1752.	1.3	21

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109	Computational modeling of acute myocardial infarction. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1107-1115.	0.9	24
110	Computational modeling of chemo-bio-mechanical coupling: a systems-biology approach toward wound healing. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 13-30.	0.9	40
111	Modeling Pathologies of Diastolic and Systolic Heart Failure. Annals of Biomedical Engineering, 2016, 44, 112-127.	1.3	73
112	Systems biology and mechanics of growth. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2015, 7, 401-412.	6.6	32
113	Primary and secondary instabilities in soft bilayered systems. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 281-282.	0.2	1
114	Modeling Tissue Expansion with Isogeometric Analysis. Plastic and Reconstructive Surgery, 2015, 136, 31-32.	0.7	1
115	Segmental Aortic Stiffening Contributes to Experimental Abdominal Aortic Aneurysm Development. Circulation, 2015, 131, 1783-1795.	1.6	113
116	Isogeometric Kirchhoffâ€“Love shell formulations for biological membranes. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 328-347.	3.4	89
117	Morphoelastic control of gastro-intestinal organogenesis: Theoretical predictions and numerical insights. Journal of the Mechanics and Physics of Solids, 2015, 78, 493-510.	2.3	50
118	Neuromechanics. Advances in Applied Mechanics, 2015, , 79-139.	1.4	56
119	Tau-ism: The Yin and Yang of Microtubule Sliding, Detachment, and Rupture. Biophysical Journal, 2015, 109, 2215-2217.	0.2	25
120	Multi-view stereo analysis reveals anisotropy of prestrain, deformation, and growth in living skin. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1007-1019.	1.4	30
121	A new sparse matrix vector multiplication graphics processing unit algorithm designed for finite element problems. International Journal for Numerical Methods in Engineering, 2015, 102, 1784-1814.	1.5	20
122	Mechanics of the brain: perspectives, challenges, and opportunities. Biomechanics and Modeling in Mechanobiology, 2015, 14, 931-965.	1.4	289
123	Period-doubling and period-tripling in growing bilayered systems. Philosophical Magazine, 2015, 95, 3208-3224.	0.7	88
124	Computational aspects of growth-induced instabilities through eigenvalue analysis. Computational Mechanics, 2015, 56, 405-420.	2.2	47
125	Size and curvature regulate pattern selection in the mammalian brain. Extreme Mechanics Letters, 2015, 4, 193-198.	2.0	50
126	Use it or lose it: multiscale skeletal muscle adaptation to mechanical stimuli. Biomechanics and Modeling in Mechanobiology, 2015, 14, 195-215.	1.4	119

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127	Patient-Specific Airway Wall Remodeling in Chronic Lung Disease. Annals of Biomedical Engineering, 2015, 43, 2538-2551.	1.3	38
128	Emerging Brain Morphologies from Axonal Elongation. Annals of Biomedical Engineering, 2015, 43, 1640-1653.	1.3	81
129	Human Cardiac Function Simulator for the Optimal Design of a Novel Annuloplasty Ring with a Sub-valvular Element for Correction of Ischemic Mitral Regurgitation. Cardiovascular Engineering and Technology, 2015, 6, 105-116.	0.7	54
130	Secondary instabilities modulate cortical complexity in the mammalian brain. Philosophical Magazine, 2015, 95, 3244-3256.	0.7	41
131	Mechanical properties of gray and white matter brain tissue by indentation. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 318-330.	1.5	499
132	Heterogeneous growth-induced prestrain in the heart. Journal of Biomechanics, 2015, 48, 2080-2089.	0.9	75
133	Physical biology of human brain development. Frontiers in Cellular Neuroscience, 2015, 9, 257.	1.8	204
134	On high heels and short muscles: A multiscale model for sarcomere loss in the gastrocnemius muscle. Journal of Theoretical Biology, 2015, 365, 301-310.	0.8	34
135	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.	1.4	63
136	A computational model that predicts reverse growth in response to mechanical unloading. Biomechanics and Modeling in Mechanobiology, 2015, 14, 217-229.	1.4	39
137	Human pluripotent stem cell tools for cardiac optogenetics. , 2014, 2014, 6171-4.		13
138	Computational modelling of electrocardiograms: repolarisation and T-wave polarity in the human heart. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 986-996.	0.9	33
139	Pattern Selection in Growing Tubular Tissues. Physical Review Letters, 2014, 113, 248101.	2.9	93
140	The Living Heart Project: A robust and integrative simulator for human heart function. European Journal of Mechanics, A/Solids, 2014, 48, 38-47.	2.1	260
141	A novel strategy to identify the critical conditions for growth-induced instabilities. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 20-32.	1.5	21
142	Growing matter: A review of growth in living systems. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 529-543.	1.5	128
143	Computational modeling of hypertensive growth in the human carotid artery. Computational Mechanics, 2014, 53, 1183-1196.	2.2	41
144	Generating fibre orientation maps in human heart models using Poisson interpolation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1217-1226.	0.9	97

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145	Characterization of living skin using multi-view stereo and isogeometric analysis. Acta Biomaterialia, 2014, 10, 4822-4831.	4.1	41
146	The generalized Hill model: A kinematic approach towards active muscle contraction. Journal of the Mechanics and Physics of Solids, 2014, 72, 20-39.	2.3	48
147	Computational modeling of skin: Using stress profiles as predictor for tissue necrosis in reconstructive surgery. Computers and Structures, 2014, 143, 32-39.	2.4	39
148	The role of mechanics during brain development. Journal of the Mechanics and Physics of Solids, 2014, 72, 75-92.	2.3	197
149	Modeling and simulation of viscous electro-active polymers. European Journal of Mechanics, A/Solids, 2014, 48, 112-128.	2.1	48
150	On the mechanics of growing thin biological membranes. Journal of the Mechanics and Physics of Solids, 2014, 63, 128-140.	2.3	36
151	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
152	Application of Finite Element Modeling to Optimize Flap Design with Tissue Expansion. Plastic and Reconstructive Surgery, 2014, 134, 785-792.	0.7	24
153	Towards an instrumented tissue expander. , 2014, , .		0
154	A mechanical model predicts morphological abnormalities in the developing human brain. Scientific Reports, 2014, 4, 5644.	1.6	164
155	Abstract 297: Segmental Aortic Stiffening is a Mechanism Driving Early Abdominal Aortic Aneurysm Pathogenesis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	1.1	0
156	Mechanics of the Mitral Annulus in Chronic Ischemic Cardiomyopathy. Annals of Biomedical Engineering, 2013, 41, 2171-2180.	1.3	27
157	Mathematical modeling of collagen turnover in biological tissue. Journal of Mathematical Biology, 2013, 67, 1765-1793.	0.8	24
158	Growth on demand: Reviewing the mechanobiology of stretched skin. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 495-509.	1.5	91
159	Mechanics of the mitral valve. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1053-1071.	1.4	70
160	A three-constituent damage model for arterial clamping in computer-assisted surgery. Biomechanics and Modeling in Mechanobiology, 2013, 12, 123-136.	1.4	39
161	On the mechanics of continua with boundary energies and growing surfaces. Journal of the Mechanics and Physics of Solids, 2013, 61, 1446-1463.	2.3	56
162	Systems-based approaches toward wound healing. Pediatric Research, 2013, 73, 553-563.	1.1	76

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163	Cardiovascular Tissue Damage: An Experimental and Computational Framework. , 2013, , 129-148.		0
164	On the effect of prestrain and residual stress in thin biological membranes. Journal of the Mechanics and Physics of Solids, 2013, 61, 1955-1969.	2.3	95
165	A fully implicit finite element method for bidomain models of cardiac electromechanics. Computer Methods in Applied Mechanics and Engineering, 2013, 253, 323-336.	3.4	82
166	On the mechanics of thin films and growing surfaces. Mathematics and Mechanics of Solids, 2013, 18, 561-575.	1.5	30
167	On the Role of Mechanics in Chronic Lung Disease. Materials, 2013, 6, 5639-5658.	1.3	41
168	Characterisation of electrophysiological conduction in cardiomyocyte co-cultures using co-occurrence analysis. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 185-197.	0.9	9
169	Computational modeling of chemoâ€electroâ€mechanical coupling: A novel implicit monolithic finite element approach. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 1104-1133.	1.0	26
170	Micro-structurally Based Kinematic Approaches to Electromechanics of the Heart. , 2013, , 175-187.		6
171	Modeling Growth in Tissue Expansion. , 2012, , .		0
172	Computational Modelling of Optogenetics in Cardiac Cells. , 2012, , .		0
173	Chronic Mitral Valve Leaflet Growth Following Myocardial Infarction. , 2012, , .		0
174	Finite Element Modeling of Flap Design After Skin Expansion. , 2012, , .		0
175	How Do Annuloplasty Rings Affect Mitral Annular Strains in the Normal Beating Ovine Heart?. Circulation, 2012, 126, S231-8.	1.6	29
176	Consistent formulation of the growth process at the kinematic and constitutive level for soft tissues composed of multiple constituents. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 547-561.	0.9	23
177	Stretching skin: The physiological limit and beyond. International Journal of Non-Linear Mechanics, 2012, 47, 938-949.	1.4	79
178	Evidence of adaptive mitral leaflet growth. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 15, 208-217.	1.5	54
179	A fully implicit finite element method for bidomain models of cardiac electrophysiology. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 645-656.	0.9	30
180	Computational modeling of bone density profiles in response to gait: a subject-specific approach. Biomechanics and Modeling in Mechanobiology, 2012, 11, 379-390.	1.4	12

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181	Growing skin: tissue expansion in pediatric forehead reconstruction. Biomechanics and Modeling in Mechanobiology, 2012, 11, 855-867.	1.4	60
182	Mitral Valve Annuloplasty. Annals of Biomedical Engineering, 2012, 40, 750-761.	1.3	66
183	Anisotropic density growth of boneâ€"A computational micro-sphere approach. International Journal of Solids and Structures, 2012, 49, 1928-1946.	1.3	22
184	On the biomechanics and mechanobiology of growing skin. Journal of Theoretical Biology, 2012, 297, 166-175.	0.8	91
185	Frontiers in growth and remodeling. Mechanics Research Communications, 2012, 42, 1-14.	1.0	178
186	Growth and remodeling of the left ventricle: A case study of myocardial infarction and surgical ventricular restoration. Mechanics Research Communications, 2012, 42, 134-141.	1.0	53
187	Kinematics of cardiac growth: In vivo characterization of growth tensors and strains. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 165-177.	1.5	25
188	Computational optogenetics: A novel continuum framework for the photoelectrochemistry of living systems. Journal of the Mechanics and Physics of Solids, 2012, 60, 1158-1178.	2.3	33
189	Stretching Skeletal Muscle: Chronic Muscle Lengthening through Sarcomerogenesis. PLoS ONE, 2012, 7, e45661.	1.1	92
190	IN VITRO/IN SILICO CHARACTERIZATION OF ACTIVE AND PASSIVE STRESSES IN CARDIAC MUSCLE. International Journal for Multiscale Computational Engineering, 2012, 10, 171-188.	0.8	13
191	Electrophysiological Modeling of Channelrhodophsin-2 in Cardiac Cells. Biophysical Journal, 2011, 100, 437a.	0.2	0
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