Peter Hunter

List of Publications by Year
in descending order

248 papers	10,865 citations	28274 55 h-index	39675 94 g-index
263 all docs	263 docs citations	263 times ranked	7497 citing authors

#	Article	IF	Citations
1	Integration from proteins to organs: the Physiome Project. Nature Reviews Molecular Cell Biology, 2003, 4, 237-243.	37.0	411
2	Modelling the mechanical properties of cardiac muscle. Progress in Biophysics and Molecular Biology, 1998, 69, 289-331.	2.9	407
3	Computational Mechanics of the Heart. , 2000, 61, 113-141.		317
4	An Anatomically Based Model of Transient Coronary Blood Flow in the Heart. SIAM Journal on Applied Mathematics, 2002, 62, 990-1018.	1.8	291
5	CT-based geometry analysis and finite element models of the human and ovine bronchial tree. Journal of Applied Physiology, 2004, 97, 2310-2321.	2.5	286
6	Modeling Total Heart Function. Annual Review of Biomedical Engineering, 2003, 5, 147-177.	12.3	250
7	Stretch-induced changes in heart rate and rhythm: clinical observations, experiments and mathematical models. Progress in Biophysics and Molecular Biology, 1999, 71, 91-138.	2.9	249
8	Big Data, Big Knowledge: Big Data for Personalized Healthcare. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1209-1215.	6.3	244
9	Cardiac Microstructure. Circulation Research, 2002, 91, 331-338.	4.5	238
10	The CellML Model Repository. Bioinformatics, 2008, 24, 2122-2123.	4.1	235
11	The Cardiac Atlas Projectâ€"an imaging database for computational modeling and statistical atlases of the heart. Bioinformatics, 2011, 27, 2288-2295.	4.1	232
12	Computational physiology and the physiome project. Experimental Physiology, 2004, 89, 1-26.	2.0	195
13	Anatomically based geometric modelling of the musculo-skeletal system and other organs. Biomechanics and Modeling in Mechanobiology, 2004, 2, 139-155.	2.8	192
14	A Quantitative Analysis of Cardiac Myocyte Relaxation: A Simulation Study. Biophysical Journal, 2006, 90, 1697-1722.	0.5	182
15	Systems medicine and integrated care to combat chronic noncommunicable diseases. Genome Medicine, 2011, 3, 43.	8.2	181
16	The analysis of cardiac function: A continuum approach. Progress in Biophysics and Molecular Biology, 1988, 52, 101-164.	2.9	172
17	The Physiome Model Repository 2. Bioinformatics, 2011, 27, 743-744.	4.1	169
18	The IUPS human physiome project. Pflugers Archiv European Journal of Physiology, 2002, 445, 1-9.	2.8	159

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19	Coupling multi-physics models to cardiac mechanics. Progress in Biophysics and Molecular Biology, 2011, 104, 77-88.	2.9	147
20	Next-generation, personalised, model-based critical care medicine: a state-of-the art review of in silico virtual patient models, methods, and cohorts, and how to validation them. BioMedical Engineering OnLine, 2018, 17, 24.	2.7	143
21	A vision and strategy for the virtual physiological human in 2010 and beyond. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2595-2614.	3.4	136
22	Minimum Information About a Simulation Experiment (MIASE). PLoS Computational Biology, 2011, 7, e1001122.	3.2	133
23	A Teleoperated Microsurgical Robot and Associated Virtual Environment for Eye Surgery. Presence: Teleoperators and Virtual Environments, 1993, 2, 265-280.	0.6	128
24	A Strategy for Integrative Computational Physiology. Physiology, 2005, 20, 316-325.	3.1	124
25	OpenCMISS: A multi-physics & multi-scale computational infrastructure for the VPH/Physiome project. Progress in Biophysics and Molecular Biology, 2011, 107, 32-47.	2.9	123
26	CellML and associated tools and techniques. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 3017-3043.	3.4	121
27	Ventricular mechanics in diastole: material parameter sensitivity. Journal of Biomechanics, 2003, 36, 737-748.	2.1	117
28	Anatomically based finite element models of the human pulmonary arterial and venous trees including supernumerary vessels. Journal of Applied Physiology, 2005, 99, 731-738.	2.5	114
29	euHeart: personalized and integrated cardiac care using patient-specific cardiovascular modelling. Interface Focus, 2011, 1, 349-364.	3.0	112
30	The Cardiac Physiome: perspectives for the future. Experimental Physiology, 2009, 94, 597-605.	2.0	99
31	The architecture of the heart: a dataâ€"based model. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2001, 359, 1217-1232.	3.4	97
32	Generation of an Anatomically Based Geometric Coronary Model. Annals of Biomedical Engineering, 2000, 28, 14-25.	2.5	94
33	A virtual environment and model of the eye for surgical simulation. , 1994, , .		93
34	Multiscale computational modelling of the heart. Acta Numerica, 2004, 13, 371.	10.7	93
35	FieldML: concepts and implementation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1869-1884.	3.4	92
36	Estimating material parameters of a structurally based constitutive relation for skin mechanics. Biomechanics and Modeling in Mechanobiology, 2011, 10, 767-778.	2.8	92

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37	Bioinformatics, multiscale modeling and the IUPS Physiome Project. Briefings in Bioinformatics, 2008, 9, 333-343.	6.5	89
38	An anatomically based patient-specific finite element model of patella articulation: towards a diagnostic tool. Biomechanics and Modeling in Mechanobiology, 2005, 4, 20-38.	2.8	88
39	Computational modelling of biological systems: tools and visions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 579-610.	3.4	84
40	OpenCOR: a modular and interoperable approach to computational biology. Frontiers in Physiology, 2015, 6, 26.	2.8	82
41	New developments in a strongly coupled cardiac electromechanical model. Europace, 2005, 7, S118-S127.	1.7	80
42	A Finite Element Method for an Eikonal Equation Model of Myocardial Excitation Wavefront Propagation. SIAM Journal on Applied Mathematics, 2002, 63, 324-350.	1.8	78
43	Minimum Information about a Cardiac Electrophysiology Experiment (MICEE): Standardised reporting for model reproducibility, interoperability, and data sharing. Progress in Biophysics and Molecular Biology, 2011, 107, 4-10.	2.9	75
44	Oneâ€Dimensional Rabbit Sinoatrial Node Models:. Journal of Cardiovascular Electrophysiology, 2003, 14, S121-S132.	1.7	74
45	A vision and strategy for the virtual physiological human: 2012 update. Interface Focus, 2013, 3, 20130004.	3.0	74
46	The Virtual Physiological Human: Ten Years After. Annual Review of Biomedical Engineering, 2016, 18, 103-123.	12.3	73
47	Experimental characterisation and object-oriented finite element modelling of polypropylene/organoclay nanocomposites. Composites Science and Technology, 2008, 68, 2864-2875.	7.8	71
48	Fluid-solid coupling for the investigation of diastolic and systolic human left ventricular function. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1017-1039.	2.1	69
49	The use of sparse CT datasets for auto-generating accurate FE models of the femur and pelvis. Journal of Biomechanics, 2007, 40, 26-35.	2.1	68
50	Integration from proteins to organs: the IUPS Physiome Project. Mechanisms of Ageing and Development, 2005, 126, 187-192.	4.6	63
51	GENE EXPRESSION OF STRETCH-ACTIVATED CHANNELS AND MECHANOELECTRIC FEEDBACK IN THE HEART. Clinical and Experimental Pharmacology and Physiology, 2006, 33, 642-648.	1.9	63
52	Ophthalmic microsurgical robot and associated virtual environment. Computers in Biology and Medicine, 1995, 25, 173-182.	7.0	62
53	CellML metadata standards, associated tools and repositories. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1845-1867.	3.4	62
54	Bridging the genotypeâ€"phenotype gap: what does it take?. Journal of Physiology, 2013, 591, 2055-2066.	2.9	62

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55	Myocardial material parameter estimation. Biomechanics and Modeling in Mechanobiology, 2008, 7, 161-173.	2.8	61
56	A Deformable Finite Element Derived Finite Difference Method for Cardiac Activation Problems. Annals of Biomedical Engineering, 2003, 31, 577-588.	2.5	58
57	The IUPS Physiome Project: a framework for computational physiology. Progress in Biophysics and Molecular Biology, 2004, 85, 551-569.	2.9	58
58	Sarcomere length changes in a 3D mathematical model of the pig ventricles. Progress in Biophysics and Molecular Biology, 2003, 82, 229-241.	2.9	57
59	Modeling RBC and Neutrophil Distribution Through an Anatomically Based Pulmonary Capillary Network. Annals of Biomedical Engineering, 2004, 32, 585-595.	2.5	54
60	Modeling Hypertrophic IP3 Transients in the Cardiac Myocyte. Biophysical Journal, 2007, 93, 3421-3433.	0.5	49
61	Epicardial surface estimation from coronary angiograms. Computer Vision, Graphics, and Image Processing, 1989, 47, 111-127.	1.0	48
62	Hierarchical Cluster-based Partial Least Squares Regression (HC-PLSR) is an efficient tool for metamodelling of nonlinear dynamic models. BMC Systems Biology, 2011, 5, 90.	3.0	48
63	Estimation of epicardial strain using the motions of coronary bifurcations in biplane cineangiography. IEEE Transactions on Biomedical Engineering, 1992, 39, 526-531.	4.2	47
64	Using Physiome standards to couple cellular functions for rat cardiac excitationâ€“contraction. Experimental Physiology, 2008, 93, 919-929.	2.0	46
65	Modelling collagen fibre orientation in porcine skin based upon confocal laser scanning microscopy. Skin Research and Technology, 2011, 17, 149-159.	1.6	46
66	Editorial. Progress in Biophysics and Molecular Biology, 1998, 69, 153-155.	2.9	45
67	Mathematical modelling of the heart: cell to organ. Chaos, Solitons and Fractals, 2002, 13, 1613-1621.	5.1	45
68	Modelling the passive and nerve activated response of the rectus femoris muscle to a flexion loading: A finite element framework. Medical Engineering and Physics, 2005, 27, 862-870.	1.7	45
69	Cellular Open Resource (COR): current status and future directions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1885-1905.	3.4	45
70	A generalized finite difference method for modeling cardiac electrical activation on arbitrary, irregular computational meshes. Mathematical Biosciences, 2005, 198, 169-189.	1.9	42
71	Multibreath washout analysis: modelling the influence of conducting airway asymmetry. Respiration Physiology, 2001, 127, 249-258.	2.7	41
72	Investigation of the Relative Effects of Vascular Branching Structure and Gravity on Pulmonary Arterial Blood Flow Heterogeneity via an Image-based Computational Model1. Academic Radiology, 2005, 12, 1464-1474.	2.5	41

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73	Modeling Water Vapor and Heat Transfer in the Normal and the Intubated Airways. Annals of Biomedical Engineering, 2004, 32, 609-622.	2.5	40
74	Structure and Function of the Diastolic Heart: Material Properties of Passive Myocardium. Institute for Nonlinear Science, 1991, , 1-29.	0.2	40
75	Characterising respiratory airway gas mixing using a lumped parameter model of the pulmonary acinus. Respiration Physiology, 2001, 127, 241-248.	2.7	38
76	Anatomically Based Modelling of the Human Skull and Jaw. Cells Tissues Organs, 2005, 180, 44-53.	2.3	38
77	Multiscale modeling: physiome project standards, tools, and databases. Computer, 2006, 39, 48-54.	1.1	38
78	Development and Validation of Patient-Specific Finite Element Models of the Hemipelvis Generated From a Sparse CT Data Set. Journal of Biomechanical Engineering, 2008, 130, 051010.	1.3	38
79	Sensitivity of NFAT Cycling to Cytosolic Calcium Concentration: Implications for Hypertrophic Signals in Cardiac Myocytes. Biophysical Journal, 2009, 96, 2095-2104.	0.5	38
80	Myocardial Constitutive Laws for Continuum Mechanics Models of the Heart. Advances in Experimental Medicine and Biology, 1995, 382, 303-318.	1.6	37
81	Extraction and Quantification of Left Ventricular Deformation Modes. IEEE Transactions on Biomedical Engineering, 2004, 51, 1923-1931.	4.2	37
82	Modeling the hepatic arterial buffer response in the liver. Medical Engineering and Physics, 2013, 35, 1053-1058.	1.7	36
83	Computational multiscale modeling in the IUPS Physiome Project: Modeling cardiac electromechanics. IBM Journal of Research and Development, 2006, 50, 617-630.	3.1	35
84	Modelling biological modularity with CellML. IET Systems Biology, 2008, 2, 73-79.	1.5	35
85	There is a theory of heart. Physica D: Nonlinear Phenomena, 1990, 43, 1-16.	2.8	34
86	The Noble cardiac ventricular electrophysiology models in CellML. Progress in Biophysics and Molecular Biology, 2006, 90, 346-359.	2.9	34
87	Modelling and visualising the heart. Computing and Visualization in Science, 2002, 4, 227-235.	1.2	33
88	The Virtual Physiological Human: The Physiome Project Aims to Develop Reproducible, Multiscale Models for Clinical Practice. IEEE Pulse, 2016, 7, 36-42.	0.3	33
89	Roadmap for cardiovascular circulation model. Journal of Physiology, 2016, 594, 6909-6928.	2.9	33
90	Multi-scale modelling and the IUPS physiome project. Journal of Molecular Histology, 2004, 35, 707-714.	2.2	32

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91	Bond Graph Model of Cerebral Circulation: Toward Clinically Feasible Systemic Blood Flow Simulations. Frontiers in Physiology, 2018, 9, 148.	2.8	32
92	An Anatomical Heart Model with Applications to Myocardial Activation and Ventricular Mechanics. , 2020, , 3-26.		32
93	The SPARC DRC: Building a Resource for the Autonomic Nervous System Community. Frontiers in Physiology, 2021, 12, 693735.	2.8	31
94	Functional tissue units and their primary tissue motifs in multi-scale physiology. Journal of Biomedical Semantics, 2013, 4, 22.	1.6	30
95	Modelling facial expressions: A framework for simulating nonlinear soft tissue deformations using embedded 3D muscles. Finite Elements in Analysis and Design, 2013, 76, 63-70.	3.2	30
96	The Human Physiome: how standards, software and innovative service infrastructures are providing the building blocks to make it achievable. Interface Focus, 2016, 6, 20150103.	3.0	30
97	FieldML, a proposed open standard for the Physiome project for mathematical model representation. Medical and Biological Engineering and Computing, 2013, 51, 1191-1207.	2.8	29
98	The VPH-Physiome Project: Standards and Tools for Multiscale Modeling in Clinical Applications. IEEE Reviews in Biomedical Engineering, 2009, 2, 40-53.	18.0	28
99	Changes in the calcium current among different transmural regions contributes to action potential heterogeneity in rat heart. Progress in Biophysics and Molecular Biology, 2010, 103, 28-34.	2.9	28
100	Systems Biology and Physiome Projects. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2009, 1, 153-158.	6.6	27
101	Sharing and reusing cardiovascular anatomical models over the Web: a step towards the implementation of the virtual physiological human project. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 3039-3056.	3.4	26
102	Model annotation and discovery with the Physiome Model Repository. BMC Bioinformatics, 2019, 20, 457.	2.6	26
103	Development of an in vivo method for determining material properties of passive myocardium. Journal of Biomechanics, 2004, 37, 669-678.	2.1	24
104	Toward a VPH/Physiome ToolKit. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 134-147.	6.6	24
105	Integrating knowledge representation and quantitative modelling in physiology. Biotechnology Journal, 2012, 7, 958-972.	3.5	24
106	Parameters in Dynamic Models of Complex Traits are Containers of Missing Heritability. PLoS Computational Biology, 2012, 8, e1002459.	3.2	24
107	Parameter distribution models for estimation of population based left ventricular deformation using sparse fiducial markers. IEEE Transactions on Medical Imaging, 2005, 24, 381-388.	8.9	23
108	Visualization of transverse diffusion paths across fiber cells of the ocular lens by small animal MRI. Physiological Measurement, 2009, 30, 1061-1073.	2.1	23

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109	Hemodynamic Analysis for Transjugular Intrahepatic Portosystemic Shunt (TIPS) in the Liver Based on a CT-Image. IEEE Transactions on Medical Imaging, 2013, 32, 92-98.	8.9	23
110	A Multiscale Framework Based on the Physiome Markup Languages for Exploring the Initiation of Osteoarthritis at the Boneâ€“Cartilage Interface. IEEE Transactions on Biomedical Engineering, 2011, 58, 3532-3536.	4.2	21
111	Numerical Simulation of Blood Flow in an Anatomically-Accurate Cerebral Venous Tree. IEEE Transactions on Medical Imaging, 2013, 32, 85-91.	8.9	19
112	Using CellML with OpenCMISS to Simulate Multi-Scale Physiology. Frontiers in Bioengineering and Biotechnology, 2015, 2, 79.	4.1	19
113	Meeting the multiscale challenge: representing physiology processes over ApiNATOMY circuits using bond graphs. Interface Focus, 2018, 8, 20170026.	3.0	19
114	Modelling Cardiac Tissue Growth and Remodelling. Journal of Elasticity, 2017, 129, 283-305.	1.9	19
115	The CellML 1.1 Specification. Journal of Integrative Bioinformatics, 2015, 12, 4-85.	1.5	17
116	How to link genomics to physiology through epigenomics. Epigenomics, 2020, 12, 285-287.	2.1	17
117	Genotype-phenotype map characteristics of an in silico heart cell. Frontiers in Physiology, 2011, 2, 106.	2.8	16
118	Open Access Integrated Therapeutic and Diagnostic Platforms for Personalized Cardiovascular Medicine. Journal of Personalized Medicine, 2013, 3, 203-237.	2.5	16
119	Perspectives on Sharing Models and Related Resources in Computational Biomechanics Research. Journal of Biomechanical Engineering, 2018, 140, .	1.3	16
120	Anatomically based simulation of hepatic perfusion in the human liver. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3229.	2.1	16
121	Revision history aware repositories of computational models of biological systems. BMC Bioinformatics, 2011, 12, 22.	2.6	15
122	Modular modelling with Physiome standards. Journal of Physiology, 2016, 594, 6817-6831.	2.9	15
123	Emulating facial biomechanics using multivariate partial least squares surrogate models. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1103-1120.	2.1	14
124	Modeling Cardiac Electrical Activity at the Cell and Tissue Levels. Annals of the New York Academy of Sciences, 2006, 1080, 334-347.	3.8	13
125	The Virtual Physiological Human. Interface Focus, 2011, 1, 281-285.	3.0	13
126	Biophysical constraints on the evolution of tissue structure and function. Journal of Physiology, 2014, 592, 2389-2401.	2.9	13

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127	Pulmonary Gas Exchange in Anatomically-Based Models of the Lung. Advances in Experimental Medicine and Biology, 2008, 605, 184-189.	1.6	12
128	The Cardiac Physiome: at the heart of coupling models to measurement. Experimental Physiology, 2009, 94, 469-471.	2.0	12
129	Multiscale Modeling of Intracranial Aneurysms: Cell Signaling, Hemodynamics, and Remodeling. IEEE Transactions on Biomedical Engineering, 2011, 58, 2974-2977.	4.2	12
130	Post-mortem prediction of primal and selected retail cut weights of New Zealand lamb from carcass and animal characteristics. Meat Science, 2016, 112, 39-45.	5.5	12
131	The CellML Metadata Framework 2.0 Specification. Journal of Integrative Bioinformatics, 2015, 12, 86-103.	1.5	11
132	BioSignalML — A meta-model for biosignals. , 2011, 2011, 5670-3.		10
133	Integrative approaches to computational biomedicine. Interface Focus, 2013, 3, 20130003.	3.0	10
134	A framework for generating anatomically detailed subject-specific human facial models for biomechanical simulations. Visual Computer, 2015, 31, 527-539.	3.5	10
135	The Cardiac Physiome Project. Journal of Physiology, 2016, 594, 6815-6816.	2.9	10
136	Musculoskeletal Modelling and the Physiome Project. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2018, , 123-174.	0.6	10
137	Computational Modeling of Ventricular Mechanics and Energetics. Applied Mechanics Reviews, 2005, 58, 77-90.	10.1	9
138	A Computational Model of Cardiac Electromechanics. , 2006, 2006, 5311-4.		9
139	The Virtual Kidney: an eScience interface and Grid portal. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2141-2159.	3.4	9
140	A tool for multi-scale modelling of the renal nephron. Interface Focus, 2011, 1, 417-425.	3.0	9
141	The Open Physiology workflow: modeling processes over physiology circuitboards of interoperable tissue units. Frontiers in Physiology, 2015, 6, 24.	2.8	9
142	A Hybrid 1D and 3D Approach to Hemodynamics Modelling for a Patient-Specific Cerebral Vasculature and Aneurysm. Lecture Notes in Computer Science, 2009, 12, 323-330.	1.3	9
143	Computer simulation of vertebral artery occlusion in endovascular procedures. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 29-37.	2.8	8
144	Blood Flow Simulation for the Liver after a Virtual Right Lobe Hepatectomy. Lecture Notes in Computer Science, 2012, 15, 525-532.	1.3	8

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145	Guest Editorial Special Issue on Medical Imaging and Image Computing in Computational Physiology. IEEE Transactions on Medical Imaging, 2013, 32, 1-7.	8.9	8
146	The Human Physiome: a necessary key for the creative destruction of medicine. Interface Focus, 2016, 6, 20160003.	3.0	8
147	A physiome interoperability roadmap for personalized drug development. Interface Focus, 2016, 6, 20150094.	3.0	8
148	Computational simulations for the hepatic arterial buffer response after liver graft transplantation from an adult to a child. Medical Engineering and Physics, 2020, 75, 49-52.	1.7	8
149	Using CellML in Computational Models of Multiscale Physiology. , 2005, 2005, 6096-9.		7
150	The cardiac physiome: Foundations and future prospects for mathematical modelling of the heart. Progress in Biophysics and Molecular Biology, 2011, 104, 1.	2.9	7
151	Estimating muscle activation patterns using a surrogate model of facial biomechanics. , 2013, 2013, 7172-5.		7
152	Computational Modeling of Glucose Uptake in the Enterocyte. Frontiers in Physiology, 2019, 10, 380.	2.8	7
153	Modeling the hepatic arterial flow in living liver donor after left hepatectomy and postoperative boundary condition exploration. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3268.	2.1	7
154	Theory and Implementation of Coupled Port-Hamiltonian Continuum and Lumped Parameter Models. Journal of Elasticity, 2021, 145, 339-382.	1.9	7
155	Large deformation mechanical testing of biological membranes using speckle interferometry in transmission II: Finite element modeling. Applied Optics, 1997, 36, 2246.	2.1	6
156	Toward a Curated CellML Model Repository. , 2006, 2006, 4237-40.		6
157	The influence of loading conditions on equine hoof capsule deflections and stored energy assessed by finite element analysis. Biosystems Engineering, 2013, 115, 283-290.	4.3	6
158	On modelling large deformations of heterogeneous biological tissues using a mixed finite element formulation. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 477-484.	1.6	6
159	Population based approaches to computational musculoskeletal modelling. Biomechanics and Modeling in Mechanobiology, 2020, 19, 1165-1168.	2.8	6
160	3D single cell scale anatomical map of sex-dependent variability of the rat intrinsic cardiac nervous system. IScience, 2021, 24, 102795.	4.1	6
161	Data-Driven Reduction of a Cardiac Myofilament Model. Lecture Notes in Computer Science, 2013, , 232-240.	1.3	6
162	Computer Modeling of Electrical Activation: From Cellular Dynamics to the Whole Heart. , 2010, , 159-185.		5

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163	Blood Flow Simulation in a Giant Intracranial Aneurysm and Its Validation by Digital Subtraction Angiography. , 2011, , 15-26.		5
164	The influence of tissue hydration on equine hoof capsule deformation and energy storage assessed using finite element methods. Biosystems Engineering, 2012, 111, 175-185.	4.3	5
165	The virtual esophagus: investigating esophageal functions <i>in silico</i>. Annals of the New York Academy of Sciences, 2016, 1380, 19-26.	3.8	5
166	Hemodynamic Simulation for an Anatomically Realistic Portal System. Lecture Notes in Computer Science, 2011, 14, 347-354.	1.3	5
167	Non-newtonian Blood Flow Analysis for the Portal Vein Based on a CT Image. Lecture Notes in Computer Science, 2012, , 283-291.	1.3	5
168	A Numerical Approach to Patient-Specific Cerebral Vasospasm Research. , 2011, 110, 157-160.		5
169	Computational Modelling of Glucose Uptake by SGLT1 and Apical GLUT2 in the Enterocyte. Frontiers in Physiology, 2021, 12, 699152.	2.8	5
170	A Mean-field Model of Ventricular Muscle Tissue. Journal of Biomechanical Engineering, 2012, 134, .	1.3	4
171	Numerical analysis for the blood flow in a patient-specific ophthalmic artery. Medical Engineering and Physics, 2012, 34, 123-127.	1.7	4
172	Requirements for the formal representation of pathophysiology mechanisms by clinicians. Interface Focus, 2016, 6, 20150099.	3.0	4
173	Automated Personalised Human Left Ventricular FE Models to Investigate Heart Failure Mechanics. Lecture Notes in Computer Science, 2013, , 307-316.	1.3	4
174	The Cell Physiome: What Do We Need in a Computational Physiology Framework for Predicting Single-Cell Biology?. Annual Review of Biomedical Data Science, 2022, 5, 341-366.	6.5	4
175	An image-based computational model of ovine lung mechanics and ventilation distribution. , 2005, 5746, 84.		3
176	Integrating degenerative mechanisms in bone and cartilage: A multiscale approach. , 2012, 2012, 6616-9.		3
177	An <i>in silico</i> rat liver atlas. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 597-600.	1.6	3
178	Our natural â€œmakeupâ€•reveals more than it hides: Modeling the skin and its microbiome. WIREs Mechanisms of Disease, 2021, 13, e1497.	3.3	3
179	Geometric Modelling of Patient-Specific Hepatic Structures Using Cubic Hermite Elements. Lecture Notes in Computer Science, 2012, , 264-271.	1.3	3
180	A Subject-Specific Framework to Inform Musculoskeletal Modeling: Outcomes from the IUPS Physiome Project. Lecture Notes in Computational Vision and Biomechanics, 2012, , 39-60.	0.5	3

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181	The IUPS Physiome Project: Progress and Plans. , 2006, , 383-393.		3
182	The long term implications and constraints of alternate energy policies. Energy, 1976, 1, 375-406.	8.8	2
183	Evaluation of arterial blood flow heterogeneity via an image-based computational model. , 2005, , .		2
184	Modelling the Mechanical Properties of Human Skin: Towards a 3D Discrete Fibre Model. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6641-4.	0.5	2
185	14-3-3. , 2008, , 1-1.		2
186	Cardiac Cellular Electrophysiological Modeling. , 2010, , 135-158.		2
187	Investigation of the role of crimps in collagen fibers in tendon with a microstructually based finite element model. , 2012, 2012, 4871-4.		2
188	Physiology Without Borders 2. Physiology, 2012, 27, 2-2.	3.1	2
189	The VPH-Physiome Project: Standards, tools and databases for multi-scale physiological modelling. Modeling, Simulation and Applications, 2012, , 205-250.	1.3	2
190	Standards and tools supporting collaborative development of the virtual physiological human. , 2013, 2013, 5541-4.		2
191	ICMA: an integrated cardiac modeling and analysis platform. Bioinformatics, 2015, 31, 1331-1333.	4.1	2
192	Relationship Between Structure and Mechanics for Membranous Tissues. , 2016, , 135-173.		2
193	Maternal Smoking Induced Cardiovascular Risks in Fetuses: How Can in silico Models Help?. Frontiers in Bioengineering and Biotechnology, 2020, 8, 97.	4.1	2
194	An in silico pipeline for subject-specific hemodynamics analysis in liver surgery planning. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 138-142.	1.6	2
195	Towards a Multiscale Integrative Model of WSS-Induced Signaling Pathways in Cerebral Aneurysms. IFMBE Proceedings, 2010, , 1159-1162.	0.3	2
196	Giving Form to the Function of the Heart: Embedding Cellular Models in an Anatomical Framework. The Japanese Journal of Physiology, 2004, 54, 541-544.	0.9	2
197	Comfort Simulator: A Software Tool to Model Thermoregulation and Perception of Comfort. Journal of Open Research Software, 2020, 8, 16.	5.9	2
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