

# Hao Gao

## List of Publications by Year in Descending Order

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

79  
papers

1,150  
citations

21  
h-index

31  
g-index

99  
ext. papers

1,419  
ext. citations

3.5  
avg, IF

4.53  
L-index

#	Paper	IF	Citations
79	Effects of dispersed fibres in myocardial mechanics, Part II: active response.. <i>Mathematical Biosciences and Engineering</i> , <b>2022</b> , 19, 4101-4119	2.1	
78	Effects of dispersed fibres in myocardial mechanics, Part I: passive response.. <i>Mathematical Biosciences and Engineering</i> , <b>2022</b> , 19, 3972-3993	2.1	1
77	Bayesian optimisation for efficient parameter inference in a cardiac mechanics model of the left ventricle.. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2022</b> , e3593	2.6	0
76	A new active contraction model for the myocardium using a modified hill model.. <i>Computers in Biology and Medicine</i> , <b>2022</b> , 145, 105417	7	
75	A ghost structure finite difference method for a fractional FitzHugh-Nagumo monodomain model on moving irregular domain. <i>Journal of Computational Physics</i> , <b>2021</b> , 428, 110081	4.1	4
74	Fluid-structure interaction in a fully coupled three-dimensional mitral-atrium-pulmonary model. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2021</b> , 20, 1267-1295	3.8	1
73	Modelling of fibre dispersion and its effects on cardiac mechanics from diastole to systole. <i>Journal of Engineering Mathematics</i> , <b>2021</b> , 128, 1	1.2	5
72	Addendum: Action potential propagation and block in a model of atrial tissue with myocyte-fibroblast coupling. <i>Mathematical Medicine and Biology</i> , <b>2021</b> , 38, 292-298	1.3	
71	The Comparison of Different Constitutive Laws and Fiber Architectures for the Aortic Valve on Fluid-Structure Interaction Simulation. <i>Frontiers in Physiology</i> , <b>2021</b> , 12, 682893	4.6	2
70	Constitutive Modelling of Soft Biological Tissue from Ex Vivo to in Vivo: Myocardium as an Example. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2021</b> , 3-14	0.2	
69	Action potential propagation and block in a model of atrial tissue with myocyte-fibroblast coupling. <i>Mathematical Medicine and Biology</i> , <b>2021</b> , 38, 106-131	1.3	1
68	Surrogate models based on machine learning methods for parameter estimation of left ventricular myocardium. <i>Royal Society Open Science</i> , <b>2021</b> , 8, 201121	3.3	14
67	Apparent growth tensor of left ventricular post myocardial infarction - In human first natural history study. <i>Computers in Biology and Medicine</i> , <b>2021</b> , 129, 104168	7	2
66	A poroelastic immersed finite element framework for modelling cardiac perfusion and fluid-structure interaction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2021</b> , 37, e3446	2.6	2
65	Neural network-based left ventricle geometry prediction from CMR images with application in biomechanics. <i>Artificial Intelligence in Medicine</i> , <b>2021</b> , 119, 102140	7.4	2
64	Effect of myofibre architecture on ventricular pump function by using a neonatal porcine heart model: from DT-MRI to rule-based methods. <i>Royal Society Open Science</i> , <b>2020</b> , 7, 191655	3.3	8
63	Analysis of Cardiac Amyloidosis Progression Using Model-Based Markers. <i>Frontiers in Physiology</i> , <b>2020</b> , 11, 324	4.6	2

62	Knowledge-Based Multi-sequence MR Segmentation via Deep Learning with a Hybrid U-Net++ Model. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 280-289	0.9	1
61	Mechanical and morphometric study of mitral valve chordae tendineae and related papillary muscle. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 111, 104011	4.1	2
60	Covalent immobilization of biomolecules on stent materials through mussel adhesive protein coating to form biofunctional films. <i>Materials Science and Engineering C</i> , <b>2020</b> , 106, 110187	8.3	6
59	Analysis of a coupled fluid-structure interaction model of the left atrium and mitral valve. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3254	2.6	15
58	Some Effects of Different Constitutive Laws on FSI Simulation for the Mitral Valve. <i>Scientific Reports</i> , <b>2019</b> , 9, 12753	4.9	5
57	A One-Dimensional Hemodynamic Model of the Coronary Arterial Tree. <i>Frontiers in Physiology</i> , <b>2019</b> , 10, 853	4.6	14
56	On the AIC-based model reduction for the general Holzapfel-Ogden myocardial constitutive law. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2019</b> , 18, 1213-1232	3.8	21
55	Simulation of action potential propagation based on the ghost structure method. <i>Scientific Reports</i> , <b>2019</b> , 9, 10927	4.9	2
54	Gaussian process emulation to accelerate parameter estimation in a mechanical model of the left ventricle: a critical step towards clinical end-user relevance. <i>Journal of the Royal Society Interface</i> , <b>2019</b> , 16, 20190114	4.1	11
53	Fast parameter inference in a biomechanical model of the left ventricle by using statistical emulation. <i>Journal of the Royal Statistical Society Series C: Applied Statistics</i> , <b>2019</b> , 68, 1555-1576	1.5	8
52	Coupled agent-based and hyperelastic modelling of the left ventricle post-myocardial infarction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3155	2.6	10
51	Advances in computational modelling for personalised medicine after myocardial infarction. <i>Heart</i> , <b>2018</b> , 104, 550-557	5.1	27
50	On the chordae structure and dynamic behaviour of the mitral valve. <i>IMA Journal of Applied Mathematics</i> , <b>2018</b> , 83, 1066-1091	1	12
49	Modelling mitral valvular dynamics-current trend and future directions. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2017</b> , 33, e2858	2.6	24
48	Estimating prognosis in patients with acute myocardial infarction using personalized computational heart models. <i>Scientific Reports</i> , <b>2017</b> , 7, 13527	4.9	10
47	A mathematical model for active contraction in healthy and failing myocytes and left ventricles. <i>PLoS ONE</i> , <b>2017</b> , 12, e0174834	3.7	5
46	A coupled mitral valve-left ventricle model with fluid-structure interaction. <i>Medical Engineering and Physics</i> , <b>2017</b> , 47, 128-136	2.4	39
45	Changes and classification in myocardial contractile function in the left ventricle following acute myocardial infarction. <i>Journal of the Royal Society Interface</i> , <b>2017</b> , 14,	4.1	31

44	Constricted channel flow with different cross-section shapes. <i>European Journal of Mechanics, B/Fluids</i> , <b>2017</b> , 63, 1-8	2.4	8
43	17 A case-control study with computational modelling of acute left ventricular dysfunction. <i>Heart</i> , <b>2016</b> , 102, A12.1-A12	5.1	
42	18 Cine-derived strain using the glasgowheart method. <i>Heart</i> , <b>2016</b> , 102, A12.2-A13	5.1	
41	Pixel-tracking derived strain using the GlasgowHeart Method. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2016</b> , 18,	6.9	78
40	Study of cardiovascular function using a coupled left ventricle and systemic circulation model. <i>Journal of Biomechanics</i> , <b>2016</b> , 49, 2445-54	2.9	33
39	A Novel Method for Estimating Myocardial Strain: Assessment of Deformation Tracking Against Reference Magnetic Resonance Methods in Healthy Volunteers. <i>Scientific Reports</i> , <b>2016</b> , 6, 38774	4.9	21
38	Fluid-Structure Interaction Model of Human Mitral Valve within Left Ventricle. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 330-337	0.9	1
37	Investigation of the optimal collagen fibre orientation in human iliac arteries. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2015</b> , 52, 108-119	4.1	27
36	Parameter estimation in a Holzapfel-Ogden law for healthy myocardium. <i>Journal of Engineering Mathematics</i> , <b>2015</b> , 95, 231-248	1.2	53
35	Verification of cardiac mechanics software: benchmark problems and solutions for testing active and passive material behaviour. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2015</b> , 471, 20150641	2.4	61
34	17 Numerical study of imaged-based human mitral valve coupled with the left ventricle. <i>Heart</i> , <b>2015</b> , 101, A6.2-A6	5.1	
33	Multi-scale modelling of the human left ventricle. <i>Scientia Sinica: Physica, Mechanica Et Astronomica</i> , <b>2015</b> , 45, 024702-024702	1.5	8
32	Image-Derived Human Left Ventricular Modelling with Fluid-Structure Interaction. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 321-329	0.9	1
31	Quasi-static image-based immersed boundary-finite element model of left ventricle under diastolic loading. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 1199-222	2.6	40
30	Semiautomated analysis of carotid artery wall thickness in MRI. <i>Journal of Magnetic Resonance Imaging</i> , <b>2014</b> , 39, 1457-67	5.6	17
29	Left ventricular strain and its pattern estimated from cine CMR and validation with DENSE. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 3637-56	3.8	24
28	Atherosclerosis Plaque Stress Analysis: A Review <b>2014</b> , 81-93		
27	A numerical study of a heart phantom model. <i>International Journal of Computer Mathematics</i> , <b>2014</b> , 91, 1535-1551	1.2	3

26	A finite strain nonlinear human mitral valve model with fluid-structure interaction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 1597-613	2.6	19
25	Dynamic finite-strain modelling of the human left ventricle in health and disease using an immersed boundary-finite element method. <i>IMA Journal of Applied Mathematics</i> , <b>2014</b> , 79, 978-1010	1	38
24	A modified Holzapfel-Ogden law for a residually stressed finite strain model of the human left ventricle in diastole. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2014</b> , 13, 99-113	3.8	50
23	Carotid Plaque Stress Analysis: Issues on Patient-Specific Modeling <b>2014</b> , 95-106		
22	Structure-based finite strain modelling of the human left ventricle in diastole. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2013</b> , 29, 83-103	2.6	75
21	Highly automatic quantification of myocardial oedema in patients with acute myocardial infarction using bright blood T2-weighted CMR. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2013</b> , 15, 28	6.9	7
20	Two Statistical Mixture Model vs. Fuzzy C-Means: In the application of edema segmentation <b>2013</b> ,		1
19	Image-based fluid-structure interaction model of the human mitral valve. <i>Computers and Fluids</i> , <b>2013</b> , 71, 417-425	2.8	34
18	Computed tomography carotid wall plaque characterization using a combination of discrete wavelet transform and texture features: A pilot study. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2013</b> , 227, 643-54	1.7	22
17	Variational level set method for left ventricle segmentation <b>2013</b> ,		2
16	Semiautomated and automated algorithms for analysis of the carotid artery wall on computed tomography and sonography: a correlation study. <i>Journal of Ultrasound in Medicine</i> , <b>2013</b> , 32, 665-74	2.9	11
15	Initial Experience with a Dynamic Imaging-Derived Immersed Boundary Model of Human Left Ventricle. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 11-18	0.9	2
14	Analysis of carotid artery plaque and wall boundaries on CT images by using a semi-automatic method based on level set model. <i>Neuroradiology</i> , <b>2012</b> , 54, 1207-14	3.2	12
13	LV wall segmentation using the variational level set method (LSM) with additional shape constraint for oedema quantification. <i>Physics in Medicine and Biology</i> , <b>2012</b> , 57, 6007-23	3.8	5
12	22 Semi-Automatic OEDEMA Quantification from Direct T2 Map Cardiac MRI. <i>Heart</i> , <b>2012</b> , 98, A7.2-A7	5.1	
11	Study of carotid arterial plaque stress for symptomatic and asymptomatic patients. <i>Journal of Biomechanics</i> , <b>2011</b> , 44, 2551-7	2.9	29
10	Stress analysis of carotid atheroma in transient ischemic attack patients: evidence for extreme stress-induced plaque rupture. <i>Annals of Biomedical Engineering</i> , <b>2011</b> , 39, 2203-12	4.7	11
9	Automatic quantification and 3D visualisation of edema in cardiac MRI. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 8021-4	0.9	1

8	CMRI based 3D left ventricle motion analysis on patients with acute myocardial infarction. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 6821-4	0.9	
7	Myocardial strain estimated from standard cine MRI closely represents strain estimated from dedicated strain-encoded MRI. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 2650-3	0.9	2
6	Stress Analysis on Carotid Atherosclerotic Plaques by Fluid Structure Interaction <b>2011</b> , 87-118		1
5	Circumferential Residual Stress Distribution and Its Influence in a Diseased Carotid Artery <b>2009</b> ,		2
4	Stress analysis of carotid atheroma in a transient ischaemic attack patient using the MRI-based fluid-structure interaction method. <i>British Journal of Radiology</i> , <b>2009</b> , 82 Spec No 1, S46-54	3.4	12
3	Study of reproducibility of human arterial plaque reconstruction and its effects on stress analysis based on multispectral in vivo magnetic resonance imaging. <i>Journal of Magnetic Resonance Imaging</i> , <b>2009</b> , 30, 85-93	5.6	25
2	Carotid arterial plaque stress analysis using fluid-structure interactive simulation based on in-vivo magnetic resonance images of four patients. <i>Journal of Biomechanics</i> , <b>2009</b> , 42, 1416-1423	2.9	63
1	Effects of varied lipid core volume and fibrous cap thickness on stress distribution in carotid arterial plaques. <i>Journal of Biomechanics</i> , <b>2008</b> , 41, 3053-9	2.9	57