Vicky Y Wang

List of Publications by Year
in descending order

43 papers	829 citations	840776 11 h-index	501196 28 g-index
48 all docs	48 docs citations	48 times ranked	1053 citing authors

#	Article	IF	Citations
1	Multiphysics and multiscale modelling, data–model fusion and integration of organ physiology in the clinic: ventricular cardiac mechanics. Interface Focus, 2016, 6, 20150083.	3.0	165
2	Modelling passive diastolic mechanics with quantitative MRI of cardiac structure and function. Medical Image Analysis, 2009, 13, 773-784.	11.6	155
3	A Human iPSC Double-Reporter System Enables Purification of Cardiac Lineage Subpopulations with Distinct Function and Drug Response Profiles. Cell Stem Cell, 2019, 24, 802-811.e5.	11.1	102
4	Electromechanical wavebreak in a model of the human left ventricle. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H134-H143.	3.2	90
5	Image-Based Predictive Modeling of Heart Mechanics. Annual Review of Biomedical Engineering, 2015, 17, 351-383.	12.3	51
6	Left Ventricular Diastolic Myocardial Stiffness and End-Diastolic Myofibre Stress in Human Heart Failure Using Personalised Biomechanical Analysis. Journal of Cardiovascular Translational Research, 2018, 11, 346-356.	2.4	34
7	Mechanical effects of MitraClip on leaflet stress and myocardial strain in functional mitral regurgitation – A finite element modeling study. PLoS ONE, 2019, 14, e0223472.	2.5	19
8	Modelling Cardiac Tissue Growth and Remodelling. Journal of Elasticity, 2017, 129, 283-305.	1.9	19
9	Image-Based Investigation of Human in Vivo Myofibre Strain. IEEE Transactions on Medical Imaging, 2016, 35, 2486-2496.	8.9	17
10	Increased cardiac work provides a link between systemic hypertension and heart failure. Physiological Reports, 2017, 5, e13104.	1.7	14
11	Image-driven constitutive modeling of myocardial fibrosis. International Journal for Computational Methods in Engineering Science and Mechanics, 2016, 17, 211-221.	2.1	12
12	Microstructurally Motivated Constitutive Modeling of Heart Failure Mechanics. Biophysical Journal, 2019, 117, 2273-2286.	0.5	12
13	Finite-element based optimization of left ventricular passive stiffness in normal volunteers and patients after myocardial infarction: Utility of an inverse deformation gradient calculation of regional diastolic strain. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 119, 104431.	3.1	12
14	Myocardial Contractility and Regional Work throughout the Cardiac Cycle Using FEM and MRI. Lecture Notes in Computer Science, 2012, , 149-159.	1.3	11
15	Systematic Comparison of Left Ventricular Geometry Between 3D-Echocardiography and Cardiac Magnetic Resonance Imaging. Frontiers in Cardiovascular Medicine, 2021, 8, 728205.	2.4	10
16	A Novel MRI-Based Finite Element Modeling Method for Calculation of Myocardial Ischemia Effect in Patients With Functional Mitral Regurgitation. Frontiers in Physiology, 2020, 11, 158.	2.8	9
17	Cardiac Active Contraction Parameters Estimated from Magnetic Resonance Imaging. Lecture Notes in Computer Science, 2010, , 194-203.	1.3	9
18	Changes in In Vivo Myocardial Tissue Properties Due to Heart Failure. Lecture Notes in Computer Science, 2013, , 216-223.	1.3	9

#	ARTICLE	IF	CITATIONS
19	Quantitative Analysis of Blood Flow in Cerebral Venous Sinus With Stenosis by Patient-Specific CFD Modeling. IEEE Access, 2019, 7, 3848-3854.	4.2	8
20	Passive Ventricular Mechanics Modelling Using MRI of Structure and Function. Lecture Notes in Computer Science, 2008, 11, 814-821.	1.3	7
21	Estimation of in vivo human myocardial fibre strain by integrating diffusion tensor and tagged MRI using FE modelling. , 2012, , .		7
22	Efficient estimation of load–free left ventricular geometry and passive myocardial properties using principal component analysis. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3313.	2.1	7
23	Calibration of a fully coupled electromechanical meshless computational model of the heart with experimental data. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112869.	6.6	6
24	Myocardial Laminar Organization Is Retained in Angiotensin-Converting Enzyme Inhibitor Treated SHRs. Experimental Mechanics, 2021, 61, 31-40.	2.0	6
25	Microstructural Remodelling and Mechanics of Hypertensive Heart Disease. Lecture Notes in Computer Science, 2015, , 382-389.	1.3	5
26	A finite element model of the cardiac ventricles with coupled circulation: Biventricular mesh generation with hexahedral elements, airbags and a functional mockup interface to the circulation. Computers in Biology and Medicine, 2021, 137, 104840.	7.0	4
27	Automated Personalised Human Left Ventricular FE Models to Investigate Heart Failure Mechanics. Lecture Notes in Computer Science, 2013, , 307-316.	1.3	4
28	Mathematical models of cardiac structure and function: mechanistic insights from models of heart failure. , 2011, , 241-250.		4
29	Quantifying passive myocardial stiffness and wall stress in heart failure patients using personalized ventricular mechanics. Journal of Cardiovascular Magnetic Resonance, 2016, 18, O17.	3.3	3
30	Left ventricular geometry during unloading and the end-systolic pressure volume relationship: Measurement with a modified real-time MRI-based method in normal sheep. PLoS ONE, 2020, 15, e0234896.	2.5	3
31	Field-Based Parameterisation of Cardiac Muscle Structure from Diffusion Tensors. Lecture Notes in Computer Science, 2015, , 146-154.	1.3	2
32	Three-Dimensional Quantification of Myocardial Collagen Morphology from Confocal Images. Lecture Notes in Computer Science, 2017, , 3-12.	1.3	2
33	Estimation of In Vivo Myocardial Fibre Strain Using an Architectural Atlas of the Human Heart. Lecture Notes in Computer Science, 2013, , 208-215.	1.3	2
34	Comparison of 2D Echocardiography and Cardiac Cine MRI in the Assessment of Regional Left Ventricular Wall Thickness. Lecture Notes in Computer Science, 2020, , 52-62.	1.3	2
35	Unsupervised segmentation and personalised FE modelling of in vivo human myocardial mechanics based on an MRI atlas. , 2012, , .		1
36	Sensitivity of Myocardial Stiffness Estimates to Inter-observer Variability in LV Geometric Modelling. Lecture Notes in Computer Science, 2021, , 287-295.	1.3	1

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37	Investigating heart failure mechanics using personalised human biophysical models. Journal of Cardiovascular Magnetic Resonance, 2013, 15, E32.	3.3	0
38	Image-Based Computational Cardiology: From Data to Understanding. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-2.	1.3	0
39	Parameterisation of Multi-directional Diffusion Weighted Magnetic Resonance Images of the Heart. Lecture Notes in Computer Science, 2016, , 60-68.	1.3	0
40	A kinematic model-based analysis framework for 3D Cine-DENSE—validation with an axially compressed gel phantom and application in sheep before and after antero-apical myocardial infarction. Magnetic Resonance in Medicine, 2021, 86, 2105-2121.	3.0	0
41	Investigating Heart Failure Using Ventricular Imaging and Modelling. Lecture Notes in Computer Science, 2010, , 164-173.	1.3	0
42	Title is missing!. , 2018, , .		0
43	Abstract 217: $TBX5^{Clover2}/NKX2-5^{TagRFP}$ hiPSCs for Simultaneously Isolating Lineage-Specific Cardiovascular Cells. Circulation Research, 2018, 123, .	4.5	0