

Jichao Zhao

List of Publications by Year in descending order

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109
papers

3,177
citations

159358

30
h-index

168136

53
g-index

113
all docs

113
docs citations

113
times ranked

3275
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic 3D Surface Reconstruction of the Left Atrium From Clinically Mapped Point Clouds Using Convolutional Neural Networks. <i>Frontiers in Physiology</i> , 2022, 13, 880260.	1.3	5
2	Enhancing the detection of atrial fibrillation from wearable sensors with neural style transfer and convolutional recurrent networks. <i>Computers in Biology and Medicine</i> , 2022, 146, 105551.	3.9	8
3	Intracardiac Inverse Potential Mapping Using the Method of Fundamental Solutions. <i>Frontiers in Physiology</i> , 2022, 13, .	1.3	3
4	Identifying locations susceptible to micro-anatomical reentry using a spatial network representation of atrial fibre maps. <i>PLoS ONE</i> , 2022, 17, e0267166.	1.1	0
5	Comprehensive evaluation of electrophysiological and 3D structural features of human atrial myocardium with insights on atrial fibrillation maintenance mechanisms. <i>Journal of Molecular and Cellular Cardiology</i> , 2021, 151, 56-71.	0.9	11
6	A global benchmark of algorithms for segmenting the left atrium from late gadolinium-enhanced cardiac magnetic resonance imaging. <i>Medical Image Analysis</i> , 2021, 67, 101832.	7.0	150
7	Mechanisms underlying pro-arrhythmic abnormalities arising from Pitx2-induced electrical remodelling: an in silico intersubject variability study. <i>Annals of Translational Medicine</i> , 2021, 9, 106-106.	0.7	3
8	In Silico Assessment of Class I Antiarrhythmic Drug Effects on Pitx2-Induced Atrial Fibrillation: Insights from Populations of Electrophysiological Models of Human Atrial Cells and Tissues. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1265.	1.8	9
9	Toward Patient-Specific Prediction of Ablation Strategies for Atrial Fibrillation Using Deep Learning. <i>Frontiers in Physiology</i> , 2021, 12, 674106.	1.3	13
10	HIPPO-MST1/2 Act Through BUB3 and FOXO to Sustain Increased Proliferation and Survival of Pulmonary Vascular Cells in Pulmonary Arterial Hypertension. , 2021, , .		0
11	Modulated Calcium Homeostasis and Release Events Under Atrial Fibrillation and Its Risk Factors: A Meta-Analysis. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 662914.	1.1	5
12	Understanding PITX2-Dependent Atrial Fibrillation Mechanisms through Computational Models. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7681.	1.8	6
13	A novel system for mapping regional electrical properties and characterizing arrhythmia in isolated intact rat atria. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2021, 321, H412-H421.	1.5	2
14	B-PO05-017 IN VIVO TO EX VIVO HIGH RESOLUTION OPTICAL MAPPING AND CONTRAST ENHANCED MAGNETIC RESONANCE IMAGING TO REVEAL ATRIAL FIBRILLATION DRIVERS AND IMPROVE IDENTIFICATION OF ARRHYTHMOGENIC STRUCTURAL SUBSTRATES IN PERSISTENT ATRIAL FIBRILLATION CANINE MODEL. <i>Heart Rhythm</i> , 2021, 18, S377-S378.	0.3	0
15	Unmasking Arrhythmogenic Hubs of Reentry Driving Persistent Atrial Fibrillation for Patient-Specific Treatment. <i>Journal of the American Heart Association</i> , 2020, 9, e017789.	1.6	18
16	In Silico Assessment of Genetic Variation in PITX2 Reveals the Molecular Mechanisms of Calcium-Mediated Cellular Triggered Activity in Atrial Fibrillation*. , 2020, 2020, 2353-2356.		4
17	PITX2 upregulation increases the risk of chronic atrial fibrillation in a dose-dependent manner by modulating IKs and ICaL—insights from human atrial modelling. <i>Annals of Translational Medicine</i> , 2020, 8, 191-191.	0.7	12
18	Afterdepolarizations and abnormal calcium handling in atrial myocytes with modulated SERCA uptake: a sensitivity analysis of calcium handling channels. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190557.	1.6	6

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19	Mini Review: Deep Learning for Atrial Segmentation From Late Gadolinium-Enhanced MRIs. <i>Frontiers in Cardiovascular Medicine</i> , 2020, 7, 86.	1.1	23
20	In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. <i>PLoS Computational Biology</i> , 2020, 16, e1007678.	1.5	21
21	Impaired neuronal sodium channels cause intranodal conduction failure and reentrant arrhythmias in human sinoatrial node. <i>Nature Communications</i> , 2020, 11, 512.	5.8	39
22	Two-Stage 2D CNN for Automatic Atrial Segmentation from LGE-MRIs. <i>Lecture Notes in Computer Science</i> , 2020, , 81-89.	1.0	3
23	Comparison of 2D Echocardiography and Cardiac Cine MRI in the Assessment of Regional Left Ventricular Wall Thickness. <i>Lecture Notes in Computer Science</i> , 2020, , 52-62.	1.0	2
24	Abstract 15311: Drivers Associated With Dense Fibrotic Regions Are Critical Targets in Extra-Pulmonary Vein Ablation in Persistent Atrial Fibrillation. <i>Circulation</i> , 2020, 142, .	1.6	0
25	Abstract 16340: Atrial Wall Thickness Features Predefine Human Right Atrial Driver: Insights Gained From Novel Structural Analysis. <i>Circulation</i> , 2020, 142, .	1.6	0
26	Abstract 14900: Human Atrial Fibrillation Drivers Revealed by Machine Learning Using Multicomponent Electrograms and 3D CE-MRI Structural Features. <i>Circulation</i> , 2020, 142, .	1.6	0
27	Abstract 14897: Activation Dyssynchrony Between Contact Multielectrode Mapping and Subsurface Near-Infrared Optical Mapping During Human Atrial Fibrillation. <i>Circulation</i> , 2020, 142, .	1.6	0
28	In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. , 2020, 16, e1007678.		0
29	In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. , 2020, 16, e1007678.		0
30	In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. , 2020, 16, e1007678.		0
31	In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. , 2020, 16, e1007678.		0
32	Fully Automatic Left Atrium Segmentation From Late Gadolinium Enhanced Magnetic Resonance Imaging Using a Dual Fully Convolutional Neural Network. <i>IEEE Transactions on Medical Imaging</i> , 2019, 38, 515-524.	5.4	90
33	Editorial: Recent Advances in Understanding the Basic Mechanisms of Atrial Fibrillation Using Novel Computational Approaches. <i>Frontiers in Physiology</i> , 2019, 10, 1065.	1.3	5
34	Proarrhythmia in the p.Met207Val PITX2c-Linked Familial Atrial Fibrillation-Insights From Modeling. <i>Frontiers in Physiology</i> , 2019, 10, 1314.	1.3	11
35	Diet-Induced Metabolic Syndrome Reduced Heart Rate Variability and Increased Irregularity and Complexity of Short-Term RR Time Series in Rabbits. <i>Animals</i> , 2019, 9, 572.	1.0	2
36	A robust computational framework for estimating 3D Bi-Atrial chamber wall thickness. <i>Computers in Biology and Medicine</i> , 2019, 114, 103444.	3.9	16

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37	Standard Quasi-Conformal Flattening of the Right and Left Atria. Lecture Notes in Computer Science, 2019, , 85-93.	1.0	3
38	Ensemble of Convolutional Neural Networks for Heart Segmentation. Lecture Notes in Computer Science, 2019, , 282-291.	1.0	0
39	HECT E3 Ubiquitin Ligase Smurf2 Regulates $\frac{1}{4}$ -Opioid Receptor Degradation in Lung Epithelial Cells. , 2019, , .		0
40	Empagliflozin, a sodium glucose co-transporter-2 inhibitor, alleviates atrial remodeling and improves mitochondrial function in high-fat diet/streptozotocin-induced diabetic rats. Cardiovascular Diabetology, 2019, 18, 165.	2.7	170
41	Canine and human sinoatrial node: differences and similarities in the structure, function, molecular profiles, and arrhythmia. Journal of Veterinary Cardiology, 2019, 22, 2-19.	0.3	38
42	Cancer antigen-125 and risk of atrial fibrillation: a systematic review and meta-analysis. Heart Asia, 2018, 10, e010970.	1.1	17
43	Absence of rotational activity detected using 2-dimensional phase mapping in the corresponding 3-dimensional phase maps in human persistent atrial fibrillation. Heart Rhythm, 2018, 15, 182-192.	0.3	20
44	Transient Rotor Activity During Prolonged 3-Dimensional Phase Mapping in Human Persistent Atrial Fibrillation. JACC: Clinical Electrophysiology, 2018, 4, 72-83.	1.3	15
45	Ionic and cellular mechanisms underlying TBX5/PITX2 insufficiency-induced atrial fibrillation: Insights from mathematical models of human atrial cells. Scientific Reports, 2018, 8, 15642.	1.6	24
46	Loss of Side-to-Side Connections Affects the Relative Contributions of the Sodium and Calcium Current to Transverse Propagation Between Strands of Atrial Myocytes. Frontiers in Physiology, 2018, 9, 1212.	1.3	6
47	Human Atrial Fibrillation Drivers Resolved With Integrated Functional and Structural Imaging to Benefit Clinical Mapping. JACC: Clinical Electrophysiology, 2018, 4, 1501-1515.	1.3	51
48	Morphological Substrates for Atrial Arrhythmogenesis in a Heart With Atrioventricular Septal Defect. Frontiers in Physiology, 2018, 9, 1071.	1.3	3
49	Segmentation of histological images and fibrosis identification with a convolutional neural network. Computers in Biology and Medicine, 2018, 98, 147-158.	3.9	41
50	High-Resolution Contrast-Enhanced Micro-Computed Tomography to Identify the Cardiac Conduction System in Congenitally Malformed Hearts. JACC: Cardiovascular Imaging, 2018, 11, 1706-1712.	2.3	15
51	A Machine Learning Aided Systematic Review and Meta-Analysis of the Relative Risk of Atrial Fibrillation in Patients With Diabetes Mellitus. Frontiers in Physiology, 2018, 9, 835.	1.3	80
52	ECG signal classification for the detection of cardiac arrhythmias using a convolutional recurrent neural network. Physiological Measurement, 2018, 39, 094006.	1.2	110
53	Telemonitoring and hemodynamic monitoring to reduce hospitalization rates in heart failure: a systematic review and meta-analysis of randomized controlled trials and real-world studies. Journal of Geriatric Cardiology, 2018, 15, 298-309.	0.2	18
54	Novel application of 3D contrast-enhanced CMR to define fibrotic structure of the human sinoatrial node in vivo. European Heart Journal Cardiovascular Imaging, 2017, 18, 862-869.	0.5	35

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55	Fibrosis and Atrial Fibrillation: Computerized and Optical Mapping. <i>JACC: Clinical Electrophysiology</i> , 2017, 3, 531-546.	1.3	77
56	Redundant and diverse intranodal pacemakers and conduction pathways protect the human sinoatrial node from failure. <i>Science Translational Medicine</i> , 2017, 9, .	5.8	76
57	Three-dimensional Integrated Functional, Structural, and Computational Mapping to Define the Structural "Fingerprints" of Heart-specific Atrial Fibrillation Drivers in Human Heart Ex Vivo. <i>Journal of the American Heart Association</i> , 2017, 6, .	1.6	120
58	Machine Learning for Fully Automatic 3D Atria Segmentation and Reconstruction from Gadolinium Enhanced MRIs. <i>Heart Lung and Circulation</i> , 2017, 26, S33.	0.2	1
59	Transient Rotor Activity Using Novel Prolonged 3D Phase Mapping in Human Persistent Atrial Fibrillation. <i>Heart Lung and Circulation</i> , 2017, 26, S175.	0.2	0
60	High resolution 3-Dimensional imaging of the human cardiac conduction system from microanatomy to mathematical modeling. <i>Scientific Reports</i> , 2017, 7, 7188.	1.6	104
61	Effects of pharmacological gap junction and sodium channel blockade on S1S2 restitution properties in Langendorff-perfused mouse hearts. <i>Oncotarget</i> , 2017, 8, 85341-85352.	0.8	7
62	Maintenance of Atrial Fibrillation. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2016, 9, .	2.1	37
63	Extended High Density Epicardial Phase Mapping of Persistent Atrial Fibrillation in the Human Left Atrium: High Prevalence of Transient Rotational Activity. <i>Heart Lung and Circulation</i> , 2016, 25, S145.	0.2	0
64	Adenosine-Induced Atrial Fibrillation. <i>Circulation</i> , 2016, 134, 486-498.	1.6	85
65	Insights from echocardiography, magnetic resonance imaging, and microcomputed tomography relative to the mid-myocardial left ventricular echogenic zone. <i>Echocardiography</i> , 2016, 33, 1546-1556.	0.3	19
66	The functional architecture of skeletal compared to cardiac musculature: Myocyte orientation, lamellar unit morphology, and the helical ventricular myocardial band. <i>Clinical Anatomy</i> , 2016, 29, 316-332.	1.5	24
67	Human sinoatrial node structure: 3D microanatomy of sinoatrial conduction pathways. <i>Progress in Biophysics and Molecular Biology</i> , 2016, 120, 164-178.	1.4	81
68	Probucol prevents atrial ion channel remodeling in an alloxan-induced diabetes rabbit model. <i>Oncotarget</i> , 2016, 7, 83850-83858.	0.8	12
69	Progressive modification of rotors in persistent atrial fibrillation by stepwise linear ablation. <i>HeartRhythm Case Reports</i> , 2015, 1, 22-26.	0.2	13
70	Atrial fibrillation driven by micro-anatomic intramural re-entry revealed by simultaneous sub-epicardial and sub-endocardial optical mapping in explanted human hearts. <i>European Heart Journal</i> , 2015, 36, 2390-2401.	1.0	347
71	Integration of High-Resolution Optical Mapping and 3-Dimensional Micro-Computed Tomographic Imaging to Resolve the Structural Basis of Atrial Conduction in the Human Heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015, 8, 1514-1517.	2.1	51
72	Fibrosis: a structural modulator of sinoatrial node physiology and dysfunction. <i>Frontiers in Physiology</i> , 2015, 6, 37.	1.3	93

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73	Optimization of Catheter Ablation of Atrial Fibrillation: Insights Gained from Clinically-Derived Computer Models. <i>International Journal of Molecular Sciences</i> , 2015, 16, 10834-10854.	1.8	33
74	Computational Modelling of Low Voltage Resonant Drift of Scroll Waves in the Realistic Human Atria. <i>Lecture Notes in Computer Science</i> , 2015, , 421-429.	1.0	14
75	Abstract 18402: Human Atrial Fibrillation Drivers Seen Simultaneously by Focal Impulse and Rotor Mapping and High-resolution Optical Mapping. <i>Circulation</i> , 2015, 132, .	1.6	15
76	INTEGRATION OF GADOLINIUM-ENHANCED MRI AND SIMULTANEOUS EPICARDIAL-“ENDOCARDIAL OPTICAL MAPPING REVEALS MICROANATOMIC SUBSTRATES ANCHORING REENTRANT DRIVERS DURING SUSTAINED ATRIAL FIBRILLATION IN HUMAN HEART. <i>Heart Rhythm</i> , 2014, 11, 2131-2132.	0.3	1
77	HUMAN ATRIAL FIBRILLATION TERMINATED BY TARGETED ABLATION OF LOCALIZED REENTRANT DRIVERS GUIDED BY DUAL-SIDED SIMULTANEOUS EPICARDIAL AND ENDOCARDIAL OPTICAL MAPPING. <i>Heart Rhythm</i> , 2014, 11, 2129-2130.	0.3	2
78	Leading Reentry Circuit(s) in the Right Atrial Free Wall Underlies Adenosine-Induced Atrial Fibrillation in Coronary Perfused Human Hearts. <i>Heart Rhythm</i> , 2013, 10, 1745.	0.3	1
79	Compact finite difference methods for high order integro-differential equations. <i>Applied Mathematics and Computation</i> , 2013, 221, 66-78.	1.4	16
80	Image-Based Model of Atrial Anatomy and Electrical Activation: A Computational Platform for Investigating Atrial Arrhythmia. <i>IEEE Transactions on Medical Imaging</i> , 2013, 32, 18-27.	5.4	38
81	Application of Micro-Computed Tomography With Iodine Staining to Cardiac Imaging, Segmentation, and Computational Model Development. <i>IEEE Transactions on Medical Imaging</i> , 2013, 32, 8-17.	5.4	106
82	Three-Dimensional Impulse Propagation in Myocardium. <i>Circulation Research</i> , 2013, 112, 834-848.	2.0	66
83	A novel computational sheep atria model for the study of atrial fibrillation. <i>Interface Focus</i> , 2013, 3, 20120067.	1.5	29
84	Heterogeneous and anisotropic integrative model of pulmonary veins: computational study of arrhythmogenic substrate for atrial fibrillation. <i>Interface Focus</i> , 2013, 3, 20120069.	1.5	34
85	Atrial Fibrosis and Atrial Fibrillation: A Computer Simulation in the Posterior Left Atrium. <i>Lecture Notes in Computer Science</i> , 2013, , 400-408.	1.0	3
86	Determination of Atrial Myofibre Orientation Using Structure Tensor Analysis for Biophysical Modelling. <i>Lecture Notes in Computer Science</i> , 2013, , 425-432.	1.0	10
87	Novel Methods for Characterization of Paroxysmal Atrial Fibrillation in Human Left Atria. <i>Open Biomedical Engineering Journal</i> , 2013, 7, 29-40.	0.7	7
88	An Image-Based Model of Atrial Muscular Architecture. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2012, 5, 361-370.	2.1	112
89	Myofiber orientation and electrical activation in human and sheep atrial models. , 2012, 2012, 6365-8.		6
90	Arrhythmogenic substrate for atrial fibrillation: Insights from an integrative computational model of pulmonary veins. , 2012, 2012, 203-6.		5

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91	Electropathological substrate detection of persistent atrial fibrillation — A novel method to analyze unipolar electrograms of noncontact mapping. , 2011, 2011, 1471-4.		2
92	Identification of the Crucial Substrates of Persistent Atrial Fibrillation by Isochronal Spectrum Analysis. Journal of Arrhythmia, 2011, 27, PE4_018.	0.5	0
93	A computer study of the effects of branching dimension on safety factor distribution and propagation in a cardiac conduction network. , 2009, 2009, 3278-81.		0
94	A Tissue-Specific Model of Reentry in the Right Atrial Appendage. Journal of Cardiovascular Electrophysiology, 2009, 20, 675-684.	0.8	30
95	Structure specific models of electrical function in the right atrial appendage. , 2008, 2008, 145-8.		2
96	Compact finite difference method for American option pricing. Journal of Computational and Applied Mathematics, 2007, 206, 306-321.	1.1	65
97	Highly accurate compact mixed methods for two point boundary value problems. Applied Mathematics and Computation, 2007, 188, 1402-1418.	1.4	18
98	Financial Applications of Symbolically Generated Compact Finite Difference Formulae. , 2007, , 361-374.		0
99	Compact finite difference method for integro-differential equations. Applied Mathematics and Computation, 2006, 177, 271-288.	1.4	90
100	Convergence of the compact finite difference method for second-order elliptic equations. Applied Mathematics and Computation, 2006, 182, 1454-1469.	1.4	19
101	Pyk2 and FAK differentially regulate progression of the cell cycle. Journal of Cell Science, 2000, 113, 3063-3072.	1.2	67
102	Pyk2 and FAK differentially regulate progression of the cell cycle. Journal of Cell Science, 2000, 113 () Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.2	34
103	Robust ECG Signal Classification for the Detection of Atrial Fibrillation Using Novel Neural Networks. , 0, , .		87
104	Analysis of Panoramic Propagation Patterns Mapped from Patients With Persistent Atrial Fibrillation. , 0, , .		0
105	Atrial Electro-anatomic Mapping with a Novel Noncontact Approach. , 0, , .		1
106	A High Resolution Bi-atrial Optical Mapping System for the Analysis of Arrhythmia in the Hypertensive Heart. , 0, , .		0
107	Structural Basis of Atrial Arrhythmogenesis in Metabolic Syndrome. , 0, , .		1
108	The Ionic Mechanisms of Triggered Atrial Activity under a TBX5-Driven Regulatory Network. , 0, , .		1

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109	Non-Contact Intracardiac Potential Mapping Using Mesh-Based and Meshless Inverse Solvers. Frontiers in Physiology, 0, 13, .	1.3	0