Lik Chuan Lee

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Optimization of cardiac resynchronization therapy based on a cardiac electromechanics-perfusion computational model. Computers in Biology and Medicine, 2022, 141, 105050.	3.9	5
2	Mechanical Stimuli for Left Ventricular Growth During Pressure Overload. Experimental Mechanics, 2021, 61, 131-146.	1.1	8
3	Left Ventricular Geometry, Tissue Composition, and Residual Stress in High Fat Diet Dahl-Salt Sensitive Rats. Experimental Mechanics, 2021, 61, 191-201.	1.1	3
4	Biomechanics of Human Fetal Hearts with Critical Aortic Stenosis. Annals of Biomedical Engineering, 2021, 49, 1364-1379.	1.3	13
5	Role of coronary flow regulation and cardiac-coronary coupling in mechanical dyssynchrony associated with right ventricular pacing. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H1037-H1054.	1.5	10
6	Computational Modeling Studies of the Roles of Left Ventricular Geometry, Afterload, and Muscle Contractility on Myocardial Strains in Heart Failure with Preserved Ejection Fraction. Journal of Cardiovascular Translational Research, 2021, 14, 1131-1145.	1.1	20
7	Transmural Distribution of Coronary Perfusion and Myocardial Work Density Due to Alterations in Ventricular Loading, Geometry and Contractility. Frontiers in Physiology, 2021, 12, 744855.	1.3	8
8	Effects of Mechanical Dyssynchrony on Coronary Flow: Insights From a Computational Model of Coupled Coronary Perfusion With Systemic Circulation. Frontiers in Physiology, 2020, 11, 915.	1.3	10
9	Overview of mathematical modeling of myocardial blood flow regulation. American Journal of Physiology - Heart and Circulatory Physiology, 2020, 318, H966-H975.	1.5	5
10	Multiscale Modeling Framework of Ventricular-Arterial Bi-directional Interactions in the Cardiopulmonary Circulation. Frontiers in Physiology, 2020, 11, 2.	1.3	16
11	Three-dimensional biventricular strains in pulmonary arterial hypertension patients using hyperelastic warping. Computer Methods and Programs in Biomedicine, 2020, 189, 105345.	2.6	7
12	Force-dependent recruitment from myosin OFF-state increases end-systolic pressureâ€“volume relationship in left ventricle. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2683-2692.	1.4	9
13	Patient-Specific Computational Analysis of Hemodynamics and Wall Mechanics and Their Interactions in Pulmonary Arterial Hypertension. Frontiers in Bioengineering and Biotechnology, 2020, 8, 611149.	2.0	8
14	Computational quantification of patient-specific changes in ventricular dynamics associated with pulmonary hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H1363-H1375.	1.5	16
15	Model of Anisotropic Reverse Cardiac Growth in Mechanical Dyssynchrony. Scientific Reports, 2019, 9, 12670.	1.6	21
16	Validation of Equilibrated Warpingâ€"Image Registration with Mechanical Regularizationâ€"On 3D Ultrasound Images. Lecture Notes in Computer Science, 2019, , 334-341.	1.0	9
17	Microstructure-based finite element model of left ventricle passive inflation. Acta Biomaterialia, 2019, 90, 241-253.	4.1	5
18	In-silico assessment of the effects of right ventricular assist device on pulmonary arterial hypertension using an image based biventricular modeling framework. Mechanics Research Communications, 2019, 97, 101-111.	1.0	20

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19	Contribution of left ventricular residual stress by myocytes and collagen: existence of inter-constituent mechanical interaction. Biomechanics and Modeling in Mechanobiology, 2018, 17, 985-999.	1.4	9
20	Image-based computational assessment of vascular wall mechanics and hemodynamics in pulmonary arterial hypertension patients. Journal of Biomechanics, 2018, 68, 84-92.	0.9	44
21	Efficient estimation of personalized biventricular mechanical function employing gradientâ€based optimization. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2982.	1.0	30
22	Quantification of Biventricular Strains in Heart Failure With Preserved Ejection Fraction Patient Using Hyperelastic Warping Method. Frontiers in Physiology, 2018, 9, 1295.	1.3	12
23	Equilibrated warping: Finite element image registration with finite strain equilibrium gap regularization. Medical Image Analysis, 2018, 50, 1-22.	7.0	34
24	High Spatial Resolution Multi-Organ Finite Element Modeling of Ventricular-Arterial Coupling. Frontiers in Physiology, 2018, 9, 119.	1.3	28
25	Organâ€level validation of a crossâ€bridge cycling descriptor in a left ventricular finite element model: effects of ventricular loading on myocardial strains. Physiological Reports, 2017, 5, e13392.	0.7	33
26	Mathematical modeling of cardiac growth and remodeling. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2016, 8, 211-226.	6.6	37
27	Patient-Specific Computational Analysis of Ventricular Mechanics in Pulmonary Arterial Hypertension. Journal of Biomechanical Engineering, 2016, 138, .	0.6	32
28	Physics-based computer simulation of the long-term effects of cardiac regenerative therapies. Technology, 2016, 04, 23-29.	1.4	1
29	An integrated electromechanical-growth heart model for simulating cardiac therapies. Biomechanics and Modeling in Mechanobiology, 2016, 15, 791-803.	1.4	50
30	Modeling Pathologies of Diastolic and Systolic Heart Failure. Annals of Biomedical Engineering, 2016, 44, 112-127.	1.3	73
31	A Novel Method for Quantifying Smooth Regional Variations in Myocardial Contractility Within an Infarcted Human Left Ventricle Based on Delay-Enhanced Magnetic Resonance Imaging. Journal of Biomechanical Engineering, 2015, 137, 081009.	0.6	29
32	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
33	Heterogeneous growth-induced prestrain in the heart. Journal of Biomechanics, 2015, 48, 2080-2089.	0.9	75
34	Utility of high-resolution electroanatomic mapping of the left ventricle using a multispline basket catheter in a swine model of chronic myocardial infarction. Heart Rhythm, 2015, 12, 144-154.	0.3	36
35	A computational model that predicts reverse growth in response to mechanical unloading. Biomechanics and Modeling in Mechanobiology, 2015, 14, 217-229.	1.4	39
36	Applications of Computational Modeling in Cardiac Surgery. Journal of Cardiac Surgery, 2014, 29, 293-302.	0.3	38

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37	Distribution of normal human left ventricular myofiber stress at end diastole and end systole: a target for in silico design of heart failure treatments. Journal of Applied Physiology, 2014, 117, 142-152.	1.2	117
38	Invited Commentary. Annals of Thoracic Surgery, 2014, 98, 80.	0.7	0
39	Patient-specific finite element modeling of the Cardiokinetix ParachuteÂ® device: effects on left ventricular wall stress and function. Medical and Biological Engineering and Computing, 2014, 52, 557-566.	1.6	38
40	Bioinjection treatment: Effects of post-injection residual stress on left ventricular wall stress. Journal of Biomechanics, 2014, 47, 3115-3119.	0.9	23
41	Analysis of patient-specific surgical ventricular restoration: importance of an ellipsoidal left ventricular geometry for diastolic and systolic function. Journal of Applied Physiology, 2013, 115, 136-144.	1.2	36
42	Algisyl-LVRâ„¢ with coronary artery bypass grafting reduces left ventricular wall stress and improves function in the failing human heart. International Journal of Cardiology, 2013, 168, 2022-2028.	0.8	86
43	Reduction in Left Ventricular Wall Stress and Improvement in Function in Failing Hearts using Algisyl-LVR. Journal of Visualized Experiments, 2013, , .	0.2	26
44	Algisyl-LVR Reduces Left Ventricular Wall Stress and Improves Function in the Failing Human Heart. Journal of Cardiac Failure, 2012, 18, S57-S58.	0.7	2
45	First Evidence of Depressed Contractility in the Border Zone of a Human Myocardial Infarction. Annals of Thoracic Surgery, 2012, 93, 1188-1193.	0.7	53
46	Patient-Specific Finite Elementâ€"Based Analysis of Ventricular Myofiber Stress After Coapsys: Importance of Residual Stress. Annals of Thoracic Surgery, 2012, 93, 1964-1971.	0.7	34
47	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
48	A Novel Method for Quantifying In-Vivo Regional Left Ventricular Myocardial Contractility in the Border Zone of a Myocardial Infarction. Journal of Biomechanical Engineering, 2011, 133, 094506.	0.6	23