Kevin L Sack

List of Publications by Year
in descending order

21 papers	449 citations	759233 12 h-index	752698 20 g-index
22 all docs	22 docs citations	22 times ranked	461 citing authors

#	Article	IF	Citations
1	In-silico study of the cardiac arrhythmogenic potential of biomaterial injection therapy. Scientific Reports, 2020, 10, 12990.	3.3	9
2	Impact of Aortic Stenosis on Myofiber Stress: Translational Application of Left Ventricle-Aortic Coupling Simulation. Frontiers in Physiology, 2020, 11, 574211.	2.8	13
3	On the Role of Ionic Modeling on the Signature of Cardiac Arrhythmias for Healthy and Diseased Hearts. Mathematics, 2020, 8, 2242.	2.2	10
4	Intra-myocardial alginate hydrogel injection acts as a left ventricular mid-wall constraint in swine. Acta Biomaterialia, 2020, 111, 170-180.	8.3	22
5	Application of feed forward and recurrent neural networks in simulation of left ventricular mechanics. Scientific Reports, 2020, 10, 22298.	3.3	9
6	Method for Calibration of Left Ventricle Material Properties Using Three-Dimensional Echocardiography Endocardial Strains. Journal of Biomechanical Engineering, 2019, 141, .	1.3	14
7	Prediction of Left Ventricular Mechanics Using Machine Learning. Frontiers in Physics, 2019, 7, .	2.1	37
8	Cell focal adhesion clustering leads to decreased and homogenized basal strains. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3260.	2.1	5
9	Multiscale characterization of heart failure. Acta Biomaterialia, 2019, 86, 66-76.	8.3	29
10	Using machine learning to characterize heart failure across the scales. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1987-2001.	2.8	53
11	Tricuspid valve regurgitation decreases after mitraclip implantation: Fluid structure interaction simulation. Mechanics Research Communications, 2019, 97, 96-100.	1.8	14
12	Kinematic boundary conditions substantially impact in silico ventricular function. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3151.	2.1	19
13	Intramyocardial Injections to De-Stiffen the Heart: A Subject-Specific in Silico Approach. MCB Molecular and Cellular Biomechanics, 2019, 16, 185-197.	0.7	4
14	Relationship of Transmural Variations in Myofiber Contractility to Left Ventricular Ejection Fraction: Implications for Modeling Heart Failure Phenotype With Preserved Ejection Fraction. Frontiers in Physiology, 2018, 9, 1003.	2.8	22
15	Endothelial cells on an aged subendothelial matrix display heterogeneous strain profiles in silico. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1405-1414.	2.8	5
16	Investigating the Role of Interventricular Interdependence in Development of Right Heart Dysfunction During LVAD Support: A Patient-Specific Methods-Based Approach. Frontiers in Physiology, 2018, 9, 520.	2.8	40
17	Construction and Validation of Subject-Specific Biventricular Finite-Element Models of Healthy and Failing Swine Hearts From High-Resolution DT-MRI. Frontiers in Physiology, 2018, 9, 539.	2.8	56
18	Effect of intra-myocardial Algisyl-LVRâ„¢ injectates on fibre structure in porcine heart failure. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 172-179.	3.1	6

#	Article	IF	Citations
19	Partial LVAD Restores Ventricular Outputs and Normalizes LV but not RV Stress Distributions in the Acutely Failing Heart in Silico. International Journal of Artificial Organs, 2016, 39, 421-430.	1.4	32
20	Personalised computational cardiology: Patient-specific modelling in cardiac mechanics and biomaterial injection therapies for myocardial infarction. Heart Failure Reviews, 2016, 21, 815-826.	3.9	31
21	Biological tissue mechanics with fibres modelled as one-dimensional Cosserat continua. Applications to cardiac tissue. International Journal of Solids and Structures, 2016, 81, 84-94.	2.7	19