Matthias A F Gsell

List of Publications by Year
in descending order

22 papers	520 citations	840585 11 h-index	713332 21 g-index
24 all docs	24 docs citations	24 times ranked	337 citing authors

#	Article	IF	Citations
1	An Integrated Workflow for Building Digital Twins of Cardiac Electromechanicsâ€"A Multi-Fidelity Approach for Personalising Active Mechanics. Mathematics, 2022, 10, 823.	1.1	16
2	Impact of Intraventricular Septal Fiber Orientation on Cardiac Electromechanical Function. American Journal of Physiology - Heart and Circulatory Physiology, 2022, , .	1.5	5
3	An accurate, robust, and efficient finite element framework with applications to anisotropic, nearly and fully incompressible elasticity. Computer Methods in Applied Mechanics and Engineering, 2022, 394, 114887.	3.4	11
4	Robust and efficient fixed-point algorithm for the inverse elastostatic problem to identify myocardial passive material parameters and the unloaded reference configuration. Journal of Computational Physics, 2022, 463, 111266.	1.9	13
5	Diacylglycerols interact with the L2 lipidation site in TRPC3 to induce a sensitized channel state. EMBO Reports, 2022, 23, .	2.0	11
6	Characterization of DAG Binding to TRPC Channels by Target-Dependent cisâ€"trans Isomerization of OptoDArG. Biomolecules, 2022, 12, 799.	1.8	7
7	A coupling strategy for a first 3D-1D model of the cardiovascular system to study the effects of pulse wave propagation on cardiac function. Computational Mechanics, 2022, 70, 703-722.	2.2	4
8	The Effect of Ventricular Myofibre Orientation on Atrial Dynamics. Lecture Notes in Computer Science, 2021, , 659-670.	1.0	3
9	Estimation and Validation of Cardiac Conduction Velocity and Wavefront Reconstruction Using Epicardial and Volumetric Data. IEEE Transactions on Biomedical Engineering, 2021, 68, 3290-3300.	2.5	12
10	Quantifying the spatiotemporal influence of acute myocardial ischemia on volumetric conduction velocity. Journal of Electrocardiology, 2021, 66, 86-94.	0.4	3
11	A Framework for the generation of digital twins of cardiac electrophysiology from clinical 12-leads ECGs. Medical Image Analysis, 2021, 71, 102080.	7.0	72
12	Automated Framework for the Inclusion of a Hisâ€"Purkinje System in Cardiac Digital Twins of Ventricular Electrophysiology. Annals of Biomedical Engineering, 2021, 49, 3143-3153.	1.3	24
13	The openCARP simulation environment for cardiac electrophysiology. Computer Methods and Programs in Biomedicine, 2021, 208, 106223.	2.6	84
14	A computationally efficient physiologically comprehensive 3Dâ€"0D closed-loop model of the heart and circulation. Computer Methods in Applied Mechanics and Engineering, 2021, 386, 114092.	3.4	26
15	Influence of Electrode Placement on the Morphology of In Silico 12 Lead Electrocardiograms. , 2021, , .		1
16	Personalization of electro-mechanical models of the pressure-overloaded left ventricle: fitting of Windkessel-type afterload models. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190342.	1.6	23
17	Automating image-based mesh generation and manipulation tasks in cardiac modeling workflows using Meshtool. SoftwareX, 2020, 11, 100454.	1.2	41
18	A publicly available virtual cohort of four-chamber heart meshes for cardiac electro-mechanics simulations. PLoS ONE, 2020, 15, e0235145.	1.1	59

#	Article	IF	Citations
19	Simulating ventricular systolic motion in a four-chamber heart model with spatially varying robin boundary conditions to model the effect of the pericardium. Journal of Biomechanics, 2020, 101, 109645.	0.9	54
20	Assessment of wall stresses and mechanical heart power in the left ventricle: Finite element modeling versus Laplace analysis. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3147.	1.0	23
21	Towards a Computational Framework for Modeling the Impact of Aortic Coarctations Upon Left Ventricular Load. Frontiers in Physiology, 2018, 9, 538.	1.3	24
22	Domain decomposition methods for nonlinear transmission conditions. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 851-852.	0.2	0