Anton J Prassl

List of Publications by Year
in descending order

24 papers	1,270 citations	430874 18 h-index	713466 21 g-index
25 all docs	25 docs citations	25 times ranked	962 citing authors

#	Article	IF	Citations
1	Generation of histo-anatomically representative models of the individual heart: tools and application. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2257-2292.	3.4	135
2	Automatically Generated, Anatomically Accurate Meshes for Cardiac Electrophysiology Problems. IEEE Transactions on Biomedical Engineering, 2009, 56, 1318-1330.	4.2	124
3	Anatomically accurate high resolution modeling of human whole heart electromechanics: A strongly scalable algebraic multigrid solver method for nonlinear deformation. Journal of Computational Physics, 2016, 305, 622-646.	3.8	115
4	Imageâ€based models of cardiac structure in health and disease. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 489-506.	6.6	113
5	Efficient computation of electrograms and ECGs in human whole heart simulations using a reaction-eikonal model. Journal of Computational Physics, 2017, 346, 191-211.	3.8	109
6	The openCARP simulation environment for cardiac electrophysiology. Computer Methods and Programs in Biomedicine, 2021, 208, 106223.	4.7	84
7	A Framework for the generation of digital twins of cardiac electrophysiology from clinical 12-leads ECGs. Medical Image Analysis, 2021, 71, 102080.	11.6	72
8	Universal ventricular coordinates: A generic framework for describing position within the heart and transferring data. Medical Image Analysis, 2018, 45, 83-93.	11.6	66
9	A publicly available virtual cohort of four-chamber heart meshes for cardiac electro-mechanics simulations. PLoS ONE, 2020, 15, e0235145.	2.5	59
10	An Efficient Finite Element Approach for Modeling Fibrotic Clefts in the Heart. IEEE Transactions on Biomedical Engineering, 2014, 61, 900-910.	4.2	56
11	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.	2.1	54
12	A Macro Finite-Element Formulation for Cardiac Electrophysiology Simulations Using Hybrid Unstructured Grids. IEEE Transactions on Biomedical Engineering, 2011, 58, 1055-1065.	4.2	41
13	Stochastic spontaneous calcium release events trigger premature ventricular complexes by overcoming electrotonic load. Cardiovascular Research, 2015, 107, 175-183.	3.8	41
14	Automating image-based mesh generation and manipulation tasks in cardiac modeling workflows using Meshtool. SoftwareX, 2020, 11, 100454.	2.6	41
15	Patient-specific modeling of left ventricular electromechanics as a driver for haemodynamic analysis. Europace, 2016, 18, iv121-iv129.	1.7	32
16	Towards a Computational Framework for Modeling the Impact of Aortic Coarctations Upon Left Ventricular Load. Frontiers in Physiology, 2018, 9, 538.	2.8	24
17	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.	2.5	24
18	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.	2.1	23

#	Article	IF	Citations
19	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.	3.4	23
20	Arterial hypertension drives arrhythmia progression via specific structural remodeling in a porcine model of atrial fibrillation. Heart Rhythm, 2018, 15, 1328-1336.	0.7	19
21	openCARP: An Open Sustainable Framework for In-Silico Cardiac Electrophysiology Research. , 0, , .		8
22	Predicting arrhythmia recurrence following catheter ablation for ventricular tachycardia using late gadolinium enhancement magnetic resonance imaging: Implications of varying scar ranges. Heart Rhythm, 2022, 19, 1604-1610.	0.7	4
23	Influence of Electrode Placement on the Morphology of In Silico 12 Lead Electrocardiograms. , 2021, , .		1
24	<i>In-vitro</i> experiments to characterize ventricular electromechanics. Current Directions in Biomedical Engineering, 2016, 2, 263-266.	0.4	0