

# Rafel M Bordas

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2804940/publications.pdf>

Version: 2024-02-01

20  
papers

1,262  
citations

471371

17  
h-index

752573

20  
g-index

20  
all docs

20  
docs citations

20  
times ranked

1633  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chaste: An Open Source C++ Library for Computational Physiology and Biology. PLoS Computational Biology, 2013, 9, e1002970.	1.5	375
2	Chaste: A test-driven approach to software development for biological modelling. Computer Physics Communications, 2009, 180, 2452-2471.	3.0	207
3	Lung Computational Models and the Role of the Small Airways in Asthma. American Journal of Respiratory and Critical Care Medicine, 2019, 200, 982-991.	2.5	91
4	A numerical guide to the solution of the bidomain equations of cardiac electrophysiology. Progress in Biophysics and Molecular Biology, 2010, 102, 136-155.	1.4	71
5	Rabbit-specific ventricular model of cardiac electrophysiological function including specialized conduction system. Progress in Biophysics and Molecular Biology, 2011, 107, 90-100.	1.4	62
6	Chaste: Cancer, Heart and Soft Tissue Environment. Journal of Open Source Software, 2020, 5, 1848.	2.0	58
7	Ten Simple Rules for a Successful Cross-Disciplinary Collaboration. PLoS Computational Biology, 2015, 11, e1004214.	1.5	46
8	Development and Analysis of Patient-Based Complete Conducting Airways Models. PLoS ONE, 2015, 10, e0144105.	1.1	45
9	Simulation of cardiac electrophysiology on next-generation high-performance computers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1951-1969.	1.6	39
10	A poroelastic model coupled to a fluid network with applications in lung modelling. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02731.	1.0	39
11	Stabilized Lowest-Order Finite Element Approximation for Linear Three-Field Poroelasticity. SIAM Journal of Scientific Computing, 2015, 37, A2222-A2245.	1.3	38
12	Chaste : incorporating a novel multi-scale spatial and temporal algorithm into a large-scale open source library. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1907-1930.	1.6	36
13	A Comparison of Fully Automated Methods of Data Analysis and Computer Assisted Heuristic Methods in an Electrode Kinetic Study of the Pathologically Variable $[Fe(CN)_6]^{4-}$ Process by AC Voltammetry. Analytical Chemistry, 2013, 85, 11780-11787.	3.2	32
14	A Bidomain Model of the Ventricular Specialized Conduction System of the Heart. SIAM Journal on Applied Mathematics, 2012, 72, 1618-1643.	0.8	31
15	Dynamic flow characteristics in normal and asthmatic lungs. International Journal for Numerical Methods in Biomedical Engineering, 2015, 31, .	1.0	26
16	A stabilized finite element method for finite-strain three-field poroelasticity. Computational Mechanics, 2017, 60, 51-68.	2.2	25
17	Quantitative Study of the Effect of Tissue Microstructure on Contraction in a Computational Model of Rat Left Ventricle. PLoS ONE, 2014, 9, e92792.	1.1	20
18	Modelling responses of the inert-gas washout and MRI to bronchoconstriction. Respiratory Physiology and Neurobiology, 2017, 235, 8-17.	0.7	13

#	ARTICLE	IF	CITATIONS
19	The prediction of viscous losses and pressure drop in models of the human airways. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2898.	1.0	5
20	Effect of Fibre Orientation Optimisation in an Electromechanical Model of Left Ventricular Contraction in Rat. Lecture Notes in Computer Science, 2013, , 46-53.	1.0	3