

David Kay

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

35
papers

1,618
citations

19
h-index

35
g-index

35
ext. papers

1,855
ext. citations

3.8
avg, IF

4.75
L-index

#	Paper	IF	Citations
35	Preconditioning nonlocal multi-phase flow. <i>Journal of Computational Physics</i> , 2021 , 424, 109715	4.1	
34	Increased ventilation heterogeneity in asthma can be attributed to proximal bronchioles. <i>European Respiratory Journal</i> , 2020 , 55,	13.6	5
33	Chaste: Cancer, Heart and Soft Tissue Environment. <i>Journal of Open Source Software</i> , 2020 , 5, 1848	5.2	22
32	Lung Computational Models and the Role of the Small Airways in Asthma. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2019 , 200, 982-991	10.2	44
31	Functional CT imaging for identification of the spatial determinants of small-airways disease in adults with asthma. <i>Journal of Allergy and Clinical Immunology</i> , 2019 , 144, 83-93	11.5	19
30	A computationally tractable scheme for simulation of the human pulmonary system. <i>Journal of Computational Physics</i> , 2019 , 388, 371-393	4.1	5
29	Modelling the effect of gravity on inert-gas washout outputs. <i>Physiological Reports</i> , 2018 , 6, e13709	2.6	10
28	A computational comparison of the multiple-breath washout and forced oscillation technique as markers of bronchoconstriction. <i>Respiratory Physiology and Neurobiology</i> , 2017 , 240, 61-69	2.8	18
27	A stabilized finite element method for finite-strain three-field poroelasticity. <i>Computational Mechanics</i> , 2017 , 60, 51-68	4	15
26	Modelling responses of the inert-gas washout and MRI to bronchoconstriction. <i>Respiratory Physiology and Neurobiology</i> , 2017 , 235, 8-17	2.8	8
25	A poroelastic model coupled to a fluid network with applications in lung modelling. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016 , 32, e02731	2.6	23
24	VEGF signals induce trailblazer cell identity that drives neural crest migration. <i>Developmental Biology</i> , 2015 , 407, 12-25	3.1	57
23	Dynamic flow characteristics in normal and asthmatic lungs. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2015 , 31,	2.6	19
22	Neural crest migration is driven by a few trailblazer cells with a unique molecular signature narrowly confined to the invasive front. <i>Development (Cambridge)</i> , 2015 , 142, 2014-25	6.6	86
21	Development and Analysis of Patient-Based Complete Conducting Airways Models. <i>PLoS ONE</i> , 2015 , 10, e0144105	3.7	34
20	Fourier spectral methods for fractional-in-space reaction-diffusion equations. <i>BIT Numerical Mathematics</i> , 2014 , 54, 937-954	1.7	215
19	Fractional diffusion models of cardiac electrical propagation: role of structural heterogeneity in dispersion of repolarization. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140352	4.1	132

18	Efficient simulation of cardiac electrical propagation using high-order finite elements II: Adaptive p-version. <i>Journal of Computational Physics</i> , 2013 , 253, 443-470	4.1	11
17	Efficient simulation of cardiac electrical propagation using high order finite elements. <i>Journal of Computational Physics</i> , 2012 , 231, 3946-3962	4.1	33
16	An Efficient Implicit FEM Scheme for Fractional-in-Space Reaction-Diffusion Equations. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A2145-A2172	2.6	141
15	Incorporating chemical signalling factors into cell-based models of growing epithelial tissues. <i>Journal of Mathematical Biology</i> , 2012 , 65, 441-63	2	28
14	Multi-cellular rosettes in the mouse visceral endoderm facilitate the ordered migration of anterior visceral endoderm cells. <i>PLoS Biology</i> , 2012 , 10, e1001256	9.7	86
13	Scalable parallel preconditioners for an open source cardiac electrophysiology simulation package. <i>Procedia Computer Science</i> , 2011 , 4, 821-830	1.6	9
12	A Preconditioner for the Finite Element Approximation to the Arbitrary Lagrangian-Eulerian Navier-Stokes Equations. <i>SIAM Journal of Scientific Computing</i> , 2010 , 32, 521-543	2.6	14
11	Stimulus protocol determines the most computationally efficient preconditioner for the bidomain equations. <i>IEEE Transactions on Biomedical Engineering</i> , 2010 , 57, 2806-15	5	8
10	Finite element approximation of a Cahn-Hilliard-Navier-Stokes system. <i>Interfaces and Free Boundaries</i> , 2008 , 15-43	0.7	72
9	Efficient Numerical Solution of Cahn-Hilliard-Navier-Stokes Fluids in 2D. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 2241-2257	2.6	45
8	A multigrid finite element solver for the Cahn-Hilliard equation. <i>Journal of Computational Physics</i> , 2006 , 212, 288-304	4.1	79
7	A Block Preconditioner for High-Order Mixed Finite Element Approximations to the Navier-Stokes Equations. <i>SIAM Journal of Scientific Computing</i> , 2006 , 27, 1867-1880	2.6	1
6	A Preconditioner for the Steady-State Navier-Stokes Equations. <i>SIAM Journal of Scientific Computing</i> , 2002 , 24, 237-256	2.6	147
5	Efficient preconditioning of the linearized Navier-Stokes equations for incompressible flow. <i>Journal of Computational and Applied Mathematics</i> , 2001 , 128, 261-279	2.4	131
4	Efficient preconditioning of the linearized Navier-Stokes equations for incompressible flow 2001 , 261-279		3
3	Approximation theory for the hp-version finite element method and application to the non-linear Laplacian. <i>Applied Numerical Mathematics</i> , 2000 , 34, 329-344	2.5	18
2	The approximation theory for the p-version finite element method and application to non-linear elliptic PDEs. <i>Numerische Mathematik</i> , 1999 , 82, 351-388	2.2	24
1	A Posteriori Error Estimation for Stabilized Mixed Approximations of the Stokes Equations. <i>SIAM Journal of Scientific Computing</i> , 1999 , 21, 1321-1336	2.6	56

