

# Rahul Bale

## List of Publications by Year in descending order

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Version: 2024-02-01

25  
papers

522  
citations

759190

12  
h-index

752679

20  
g-index

25  
all docs

25  
docs citations

25  
times ranked

496  
citing authors

#	ARTICLE	IF	CITATIONS
1	A unified mathematical framework and an adaptive numerical method for fluid–structure interaction with rigid, deforming, and elastic bodies. <i>Journal of Computational Physics</i> , 2013, 250, 446-476.	3.8	119
2	Energy efficiency and allometry of movement of swimming and flying animals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 7517-7521.	7.1	80
3	Undulating fins produce off-axis thrust and flow structures. <i>Journal of Experimental Biology</i> , 2014, 217, 201-13.	1.7	43
4	Convergent Evolution of Mechanically Optimal Locomotion in Aquatic Invertebrates and Vertebrates. <i>PLoS Biology</i> , 2015, 13, e1002123.	5.6	41
5	Separability of drag and thrust in undulatory animals and machines. <i>Scientific Reports</i> , 2014, 4, 7329.	3.3	27
6	Fully resolved immersed electrohydrodynamics for particle motion, electrolocation, and self-propulsion. <i>Journal of Computational Physics</i> , 2014, 256, 88-108.	3.8	25
7	CUBE: A scalable framework for large-scale industrial simulations. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 678-698.	3.7	24
8	Quantifying the COVID19 infection risk due to droplet/aerosol inhalation. <i>Scientific Reports</i> , 2022, 12, .	3.3	23
9	Optimal specific wavelength for maximum thrust production in undulatory propulsion. <i>PLoS ONE</i> , 2017, 12, e0179727.	2.5	20
10	Full Eulerian deformable solid–fluid interaction scheme based on building–cube method for large–scale parallel computing. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 117, 221-248.	2.8	20
11	Gray's paradox: A fluid mechanical perspective. <i>Scientific Reports</i> , 2014, 4, 5904.	3.3	19
12	Framework for simulation of natural convection in practical applications. <i>International Communications in Heat and Mass Transfer</i> , 2016, 75, 52-58.	5.6	18
13	Hydrodynamic optimality of balistiform and gymnotiform locomotion. <i>European Journal of Computational Mechanics</i> , 2017, 26, 31-43.	0.6	13
14	Simulation of droplet dispersion in COVID-19 type pandemics on Fugaku. , 2021, , .		12
15	A Scalable Framework for Numerical Simulation of Combustion in Internal Combustion Engines. , 2020, , .		9
16	The effect of wall heating on instability of channel flow – CORRIGENDUM. <i>Journal of Fluid Mechanics</i> , 2011, 673, 603-605.	3.4	7
17	Stencil Penalty approach based constraint immersed boundary method. <i>Computers and Fluids</i> , 2020, 200, 104457.	2.5	7
18	Transient growth and why we should care about it. <i>Resonance</i> , 2010, 15, 441-457.	0.3	5

#	ARTICLE	IF	CITATIONS
19	Analytical solutions for algebraic growth of disturbances in a stably stratified shear flow. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150267.	2.1	5
20	Optimal energy growth in a stably stratified shear flow. Fluid Dynamics Research, 2018, 50, 011421.	1.8	2
21	A one-sided direct forcing immersed boundary method using moving least squares. Journal of Computational Physics, 2021, 440, 110359.	3.8	2
22	Dynamic Load Balancing for Large-Scale Multiphysics Simulations. Lecture Notes in Computer Science, 2017, , 13-23.	1.3	1
23	A study on efficiency of semi-implicit, density-based solver for simulation of evaporating particle-laden flow. Mechanical Engineering Letters, 2021, 7, 21-00136-21-00136.	0.6	0
24	IMPLICIT PARTICLE-IN-CELL FORMULATION FOR INCOMPRESSIBLE SOLID-FLUID INTERACTION PROBLEM. Journal of Japan Society of Civil Engineers Ser A2 (Applied Mechanics (AM)), 2018, 74, I_253-I_263.	0.1	0
25	Nonlinear Mode Decomposition and Reduced-Order Modeling for Three-Dimensional Cylinder Flow by Distributed Learning on Fugaku. Lecture Notes in Computer Science, 2021, , 122-137.	1.3	0