Shravan Veerapaneni

List of Publications by Year
in descending order

28	464	687363 13	839539 18
papers	citations	h-index	g-index

29	29	29	386
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Petascale Direct Numerical Simulation of Blood Flow on 200K Cores and Heterogeneous Architectures. , 2010, , .		93
2	Spectrally Accurate Quadratures for Evaluation of Layer Potentials Close to the Boundary for the 2D Stokes and Laplace Equations. SIAM Journal of Scientific Computing, 2015, 37, B519-B542.	2.8	39
3	Simple and efficient representations for the fundamental solutions of Stokes flow in a half-space. Journal of Fluid Mechanics, 2015, 776, .	3.4	31
4	A Fast Algorithm for Simulating Multiphase Flows Through Periodic Geometries of Arbitrary Shape. SIAM Journal of Scientific Computing, 2016, 38, B740-B772.	2.8	31
5	An integral equation formulation for rigid bodies in Stokes flow in three dimensions. Journal of Computational Physics, 2017, 332, 504-519.	3.8	28
6	Gating of a mechanosensitive channel due to cellular flows. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9822-9827.	7.1	27
7	A scalable computational platform for particulate Stokes suspensions. Journal of Computational Physics, 2020, 416, 109524.	3.8	23
8	Optimal slip velocities of micro-swimmers with arbitrary axisymmetric shapes. Journal of Fluid Mechanics, 2021, 910, .	3.4	18
9	Integral Equation Methods for Unsteady Stokes Flow in Two Dimensions. SIAM Journal of Scientific Computing, 2012, 34, A2197-A2219.	2.8	17
10	A Fast Algorithm for Spherical Grid Rotations and Its Application to Singular Quadrature. SIAM Journal of Scientific Computing, 2013, 35, A2738-A2751.	2.8	17
11	Dynamics of a multicomponent vesicle in shear flow. Soft Matter, 2017, 13, 3521-3531.	2.7	15
12	Boundary integral equation analysis for suspension of spheres in Stokes flow. Journal of Computational Physics, 2018, 362, 327-345.	3.8	15
13	Integral equation methods for vesicle electrohydrodynamics in three dimensions. Journal of Computational Physics, 2016, 326, 278-289.	3.8	14
14	A Unified Integral Equation Scheme for Doubly Periodic Laplace and Stokes Boundary Value Problems in Two Dimensions. Communications on Pure and Applied Mathematics, 2018, 71, 2334-2380.	3.1	14
15	Solution of Stokes flow in complex nonsmooth 2D geometries via a linear-scaling high-order adaptive integral equation scheme. Journal of Computational Physics, 2020, 410, 109361.	3.8	14
16	Natural evolution strategies and variational Monte Carlo. Machine Learning: Science and Technology, 2021, 2, 02LT01.	5.0	12
17	Long-wave dynamics of an inextensible planar membrane in an electric field. Journal of Fluid Mechanics, 2014, 751, 406-431.	3.4	8
18	Equilibrium shapes of planar elastic membranes. Physical Review E, 2015, 92, 012405.	2.1	8

#	Article	IF	Citations
19	Hydrodynamics and rheology of a vesicle doublet suspension. Physical Review Fluids, 2019, 4, .	2.5	8
20	Simulating cilia-driven mixing and transport in complex geometries. Physical Review Fluids, 2020, 5, .	2.5	7
21	Electrohydrodynamics of deflated vesicles: budding, rheology and pairwise interactions. Journal of Fluid Mechanics, 2019, 867, 334-347.	3.4	6
22	Shape optimization of Stokesian peristaltic pumps using boundary integral methods. Advances in Computational Mathematics, 2020, 46, 1.	1.6	5
23	Tensor Train Accelerated Solvers for Nonsmooth Rigid Body Dynamics. Applied Mechanics Reviews, 2019, 71, .	10.1	4
24	An Active Learning Framework for Constructing High-Fidelity Mobility Maps. IEEE Transactions on Vehicular Technology, 2021, 70, 9803-9813.	6.3	3
25	Optimal ciliary locomotion of axisymmetric microswimmers. Journal of Fluid Mechanics, 2021, 927, .	3.4	3
26	High-Order Close Evaluation of Laplace Layer Potentials: A Differential Geometric Approach. SIAM Journal of Scientific Computing, 2022, 44, A1381-A1404.	2.8	2
27	Scalable Solvers for Cone Complementarity Problems in Frictional Multibody Dynamics. , 2019, , .		1
28	Continuous-variable optimization with neural network quantum states. Quantum Machine Intelligence, 2022, 4, 1.	4.8	0