

Prosenjit Bagchi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9371086/publications.pdf>

Version: 2024-02-01

51
papers

2,509
citations

218677

26
h-index

233421

45
g-index

52
all docs

52
docs citations

52
times ranked

1672
citing authors

#	ARTICLE	IF	CITATIONS
1	A computational study of red blood cell deformability effect on hemodynamic alteration in capillary vessel networks. <i>Scientific Reports</i> , 2022, 12, 4304.	3.3	26
2	A computational study of amoeboid motility in 3D: the role of extracellular matrix geometry, cell deformability, and cell–matrix adhesion. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 167-191.	2.8	14
3	Motion of a capsule in a curved tube. <i>Journal of Fluid Mechanics</i> , 2021, 907, .	3.4	10
4	Investigation of red blood cell partitioning in an in vitro microvascular bifurcation. <i>Artificial Organs</i> , 2021, 45, 1083-1096.	1.9	12
5	Inertial and non-inertial focusing of a deformable capsule in a curved microchannel. <i>Journal of Fluid Mechanics</i> , 2021, 929, .	3.4	7
6	Three-dimensional distribution of wall shear stress and its gradient in red cell-resolved computational modeling of blood flow in in vivo-like microvascular networks. <i>Physiological Reports</i> , 2019, 7, e14067.	1.7	32
7	The cell-free layer in simulated microvascular networks. <i>Journal of Fluid Mechanics</i> , 2019, 864, 768-806.	3.4	26
8	High-fidelity Modeling of Blood Flow in Physiologically Realistic Microvascular Networks. <i>FASEB Journal</i> , 2019, 33, 521.2.	0.5	0
9	Analysis of red blood cell partitioning at bifurcations in simulated microvascular networks. <i>Physics of Fluids</i> , 2018, 30, .	4.0	71
10	A computational model of amoeboid cell motility in the presence of obstacles. <i>Soft Matter</i> , 2018, 14, 5741-5763.	2.7	16
11	A computational approach to modeling cellular-scale blood flow in complex geometry. <i>Journal of Computational Physics</i> , 2017, 334, 280-307.	3.8	76
12	On the shape memory of red blood cells. <i>Physics of Fluids</i> , 2017, 29, .	4.0	25
13	A computational model of amoeboid cell swimming. <i>Physics of Fluids</i> , 2017, 29, .	4.0	27
14	Direct Numerical Simulation of Cellular-Scale Blood Flow in 3D Microvascular Networks. <i>Biophysical Journal</i> , 2017, 113, 2815-2826.	0.5	65
15	Flow of Red Blood Cells in Stenosed Microvessels. <i>Scientific Reports</i> , 2016, 6, 28194.	3.3	44
16	Dynamics of red blood cells in oscillating shear flow. <i>Journal of Fluid Mechanics</i> , 2016, 800, 484-516.	3.4	22
17	Flow-Induced Damage to Blood Cells in Aortic Valve Stenosis. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2724-2736.	2.5	30
18	Microparticle shape effects on margination, near-wall dynamics and adhesion in a three-dimensional simulation of red blood cell suspension. <i>Soft Matter</i> , 2015, 11, 2097-2109.	2.7	84

#	ARTICLE	IF	CITATIONS
19	Intermittency and synchronized motion of red blood cell dynamics in shear flow. <i>Journal of Fluid Mechanics</i> , 2014, 759, 472-488.	3.4	23
20	Comparison of erythrocyte dynamics in shear flow under different stress-free configurations. <i>Physics of Fluids</i> , 2014, 26, .	4.0	69
21	Platelet Dynamics in Three-Dimensional Simulation of Whole Blood. <i>Biophysical Journal</i> , 2014, 106, 2529-2540.	0.5	90
22	Hydrodynamic Interaction Between a Platelet and an Erythrocyte: Effect of Erythrocyte Deformability, Dynamics, and Wall Proximity. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 51002.	1.3	9
23	Orbital drift of capsules and red blood cells in shear flow. <i>Physics of Fluids</i> , 2013, 25, .	4.0	53
24	Influence of membrane viscosity on capsule dynamics in shear flow. <i>Journal of Fluid Mechanics</i> , 2013, 718, 569-595.	3.4	106
25	Analysis of membrane tank-tread of nonspherical capsules and red blood cells. <i>European Physical Journal E</i> , 2012, 35, 103.	1.6	6
26	Three-dimensional numerical simulation of vesicle dynamics using a front-tracking method. <i>Physical Review E</i> , 2012, 85, 056308.	2.1	70
27	Phase diagram and breathing dynamics of a single red blood cell and a biconcave capsule in dilute shear flow. <i>Physical Review E</i> , 2011, 84, 026314.	2.1	87
28	Dynamic rheology of a dilute suspension of elastic capsules: effect of capsule tank-treading, swinging and tumbling. <i>Journal of Fluid Mechanics</i> , 2011, 669, 498-526.	3.4	29
29	Dynamics of microcapsules in oscillating shear flow. <i>Physics of Fluids</i> , 2011, 23, .	4.0	26
30	Tank-treading and tumbling frequencies of capsules and red blood cells. <i>Physical Review E</i> , 2011, 83, 046305.	2.1	53
31	Rheology of a dilute suspension of liquid-filled elastic capsules. <i>Physical Review E</i> , 2010, 81, 056320.	2.1	39
32	Dynamics of nonspherical capsules in shear flow. <i>Physical Review E</i> , 2009, 80, 016307.	2.1	93
33	Three-dimensional computational modeling of multiple deformable cells flowing in microvessels. <i>Physical Review E</i> , 2009, 79, 046318.	2.1	152
34	A computational study of leukocyte adhesion and its effect on flow pattern in microvessels. <i>Journal of Theoretical Biology</i> , 2008, 254, 483-498.	1.7	44
35	Effect of inertia on the hydrodynamic interaction between two liquid capsules in simple shear flow. <i>International Journal of Multiphase Flow</i> , 2008, 34, 375-392.	3.4	39
36	Lateral migration of a capsule in a plane Poiseuille flow in a channel. <i>International Journal of Multiphase Flow</i> , 2008, 34, 966-986.	3.4	157

#	ARTICLE	IF	CITATIONS
37	3D computational modeling and simulation of leukocyte rolling adhesion and deformation. Computers in Biology and Medicine, 2008, 38, 738-753.	7.0	57
38	Effect of freestream isotropic turbulence on heat transfer from a sphere. Physics of Fluids, 2008, 20, .	4.0	21
39	3D Computational Modeling and Simulation of Cell Motion on Adhesive Surfaces in Shear Flow. , 2008, , .		0
40	Capture, Deformation, Rolling and Detachment of a Cell on an Adhesive Surface in a Shear Flow. , 2008, , .		0
41	Direct Numerical Simulation of 1000 Deformable Capsules in a Channel Flow at Finite Inertia. , 2008, , .		0
42	Binary Interaction of Liquid Capsules in a Shear Flow. , 2008, , .		0
43	Rheology of a Suspension of 1000 Liquid Capsules in Channel Flow. , 2008, , .		0
44	Flow Past a Sphere With Surface Blowing and Suction. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1547-1558.	1.5	6
45	Mesoscale Simulation of Blood Flow in Small Vessels. Biophysical Journal, 2007, 92, 1858-1877.	0.5	244
46	Hydrodynamic interaction between erythrocytes and leukocytes affects rheology of blood in microvessels. Biorheology, 2007, 44, 191-215.	0.4	9
47	Computational Fluid Dynamic Simulation of Aggregation of Deformable Cells in a Shear Flow. Journal of Biomechanical Engineering, 2005, 127, 1070.	1.3	143
48	Response of the wake of an isolated particle to an isotropic turbulent flow. Journal of Fluid Mechanics, 2004, 518, 95-123.	3.4	105
49	Inertial and viscous forces on a rigid sphere in straining flows at moderate Reynolds numbers. Journal of Fluid Mechanics, 2003, 481, 105-148.	3.4	48
50	Shear versus vortex-induced lift force on a rigid sphere at moderate Re. Journal of Fluid Mechanics, 2002, 473, 379-388.	3.4	66
51	Steady planar straining flow past a rigid sphere at moderate Reynolds number. Journal of Fluid Mechanics, 2002, 466, 365-407.	3.4	78