

Bin Liu

List of Publications by Year in descending order

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Version: 2024-02-01

24
papers

1,660
citations

623574

14
h-index

580701

25
g-index

25
all docs

25
docs citations

25
times ranked

1612
citing authors

#	ARTICLE	IF	CITATIONS
1	Origami structures with a critical transition to bistability arising from hidden degrees of freedom. <i>Nature Materials</i> , 2015, 14, 389-393.	13.3	382
2	Propulsion of microorganisms by a helical flagellum. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E338-47.	3.3	186
3	Force-free swimming of a model helical flagellum in viscoelastic fluids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 19516-19520.	3.3	170
4	Topological Mechanics of Origami and Kirigami. <i>Physical Review Letters</i> , 2016, 116, 135501.	2.9	156
5	3D Pixel Mechanical Metamaterials. <i>Advanced Materials</i> , 2019, 31, e1900548.	11.1	145
6	Locomotion of Helical Bodies in Viscoelastic Fluids: Enhanced Swimming at Large Helical Amplitudes. <i>Physical Review Letters</i> , 2013, 111, 068101.	2.9	139
7	Helical motion of the cell body enhances <i>Caulobacter crescentus</i> motility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11252-11256.	3.3	75
8	Topological kinematics of origami metamaterials. <i>Nature Physics</i> , 2018, 14, 811-815.	6.5	74
9	Advances in mechanics of hierarchical composite materials. <i>Composites Science and Technology</i> , 2021, 214, 108970.	3.8	72
10	Speed of a swimming sheet in Newtonian and viscoelastic fluids. <i>Physical Review E</i> , 2013, 87, 013015.	0.8	56
11	Propulsion by a helical flagellum in a capillary tube. <i>Physics of Fluids</i> , 2014, 26, .	1.6	39
12	Focused Force Transmission through an Aqueous Suspension of Granules. <i>Physical Review Letters</i> , 2010, 105, 188301.	2.9	38
13	Self-Induced Cyclic Reorganization of Free Bodies through Thermal Convection. <i>Physical Review Letters</i> , 2008, 100, 244501.	2.9	20
14	Hovering of a rigid pyramid in an oscillatory airflow. <i>Journal of Fluid Mechanics</i> , 2010, 650, 415-425.	1.4	17
15	Intrinsic Stability of a Body Hovering in an Oscillating Airflow. <i>Physical Review Letters</i> , 2012, 108, 068103.	2.9	14
16	Implicit density-functional theory. <i>Physical Review A</i> , 2006, 74, .	1.0	13
17	Helical swimming in Stokes flow using a novel boundary-element method. <i>Physics of Fluids</i> , 2013, 25, .	1.6	13
18	Geometric effects induce anomalous size-dependent active transport in structured environments. <i>Physical Review Fluids</i> , 2022, 7, .	1.0	12

#	ARTICLE	IF	CITATIONS
19	Self-propelling and rolling of a sessile-motile aggregate of the bacterium <i>Caulobacter crescentus</i> . <i>Communications Biology</i> , 2020, 3, 587.	2.0	7
20	The critical temperature of two-dimensional and three-dimensional Ising models. <i>American Journal of Physics</i> , 2003, 71, 806-808.	0.3	6
21	Oscillations of a layer of viscoelastic fluid under steady forcing. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012, 175-176, 38-43.	1.0	5
22	Propulsive matrix of a helical flagellum. <i>Chinese Physics B</i> , 2014, 23, 114703.	0.7	5
23	Bundled slender-body theory for elongated geometries in swimming bacteria. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	2
24	Symmetry-based nonperturbative micromanipulation in a three-dimensional microfluidic device. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	2