

Hepeng Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

2,681
citations

236925

25
h-index

302126

39
g-index

40
all docs

40
docs citations

40
times ranked

2958
citing authors

#	ARTICLE	IF	CITATIONS
1	Collective motion and density fluctuations in bacterial colonies. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13626-13630.	7.1	599
2	Jamming transition in emulsions and granular materials. Physical Review E, 2005, 72, 011301.	2.1	272
3	Propulsion of microorganisms by a helical flagellum. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E338-47.	7.1	186
4	Scale-Invariant Correlations in Dynamic Bacterial Clusters. Physical Review Letters, 2012, 108, 148101.	7.8	126
5	Deadly competition between sibling bacterial colonies. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 428-433.	7.1	125
6	Measuring Crowd Collectiveness. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1586-1599.	13.9	118
7	Photochemically Powered AgCl Janus Micromotors as a Model System to Understand Ionic Self-Diffusiophoresis. Langmuir, 2018, 34, 3289-3295.	3.5	112
8	Swarming dynamics in bacterial colonies. Europhysics Letters, 2009, 87, 48011.	2.0	96
9	Hydrodynamic and entropic effects on colloidal diffusion in corrugated channels. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9564-9569.	7.1	95
10	Data-driven quantitative modeling of bacterial active nematics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 777-785.	7.1	89
11	Bimetallic Microswimmers Speed Up in Confining Channels. Physical Review Letters, 2016, 117, 198001.	7.8	75
12	<i>Paenibacillus dendritiformis</i> Bacterial Colony Growth Depends on Surfactant but Not on Bacterial Motion. Journal of Bacteriology, 2009, 191, 5758-5764.	2.2	61
13	Toughening Effect of Strain-Induced Crystallites in Natural Rubber. Physical Review Letters, 2009, 102, 245503.	7.8	57
14	Lethal protein produced in response to competition between sibling bacterial colonies. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6258-6263.	7.1	52
15	Resonant Generation of Internal Waves on a Model Continental Slope. Physical Review Letters, 2008, 100, 244504.	7.8	51
16	Synergistic Speed Enhancement of an Electric-Photochemical Hybrid Micromotor by Tilt Rectification. ACS Nano, 2020, 14, 8658-8667.	14.6	49
17	Experimental study of internal gravity waves generated by supercritical topography. Physics of Fluids, 2007, 19, 096602.	4.0	46
18	Circular swimming motility and disordered hyperuniform state in an algae system. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	38

#	ARTICLE	IF	CITATIONS
19	Tidal flow over three-dimensional topography in a stratified fluid. <i>Physics of Fluids</i> , 2009, 21, .	4.0	37
20	Dynamic clustering in suspension of motile bacteria. <i>Europhysics Letters</i> , 2015, 111, 54002.	2.0	37
21	Dynamics of static friction between steel and silicon. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 13264-13268.	7.1	36
22	Harmonic generation by reflecting internal waves. <i>Physics of Fluids</i> , 2011, 23, 026601.	4.0	34
23	Buoyancy frequency profiles and internal semidiurnal tide turning depths in the oceans. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	33
24	A scalable photonic computer solving the subset sum problem. <i>Science Advances</i> , 2020, 6, eaay5853.	10.3	32
25	Robust boundary flow in chiral active fluid. <i>Physical Review E</i> , 2020, 101, 022603.	2.1	28
26	Asymmetric gear rectifies random robot motion. <i>Europhysics Letters</i> , 2013, 102, 50007.	2.0	27
27	The liquid-glass transition in sugars: Relaxation dynamics in trehalose. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 4464-4474.	3.1	24
28	Brillouin scattering study of salol: Exploring the effects of rotation-translation coupling. <i>Physical Review E</i> , 2004, 70, 011502.	2.1	22
29	Tidal flow over three-dimensional topography generates out-of-plane harmonics. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	20
30	Using confined bacteria as building blocks to generate fluid flow. <i>Lab on A Chip</i> , 2015, 15, 4555-4562.	6.0	19
31	Scaling of crack propagation in rubber sheets. <i>Europhysics Letters</i> , 2011, 96, 36009.	2.0	18
32	Experimental study of a freely falling plate with an inhomogeneous mass distribution. <i>Physical Review E</i> , 2013, 88, 053008.	2.1	18
33	Unraveling the physiochemical nature of colloidal motion waves among silver colloids. <i>Science Advances</i> , 2022, 8, .	10.3	15
34	Controlling Cell Motion and Microscale Flow with Polarized Light Fields. <i>Physical Review Letters</i> , 2021, 126, 058001.	7.8	12
35	Diffusion of colloidal rods in corrugated channels. <i>Physical Review E</i> , 2019, 99, 020601.	2.1	10
36	Propulsive matrix of a helical flagellum. <i>Chinese Physics B</i> , 2014, 23, 114703.	1.4	5

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37	Symmetry properties of fluctuations in an actively driven rotor*. Chinese Physics B, 2020, 29, 060502.	1.4	5
38	Robust propagation of internal coastal Kelvin waves in complex domains. Physical Review Fluids, 2021, 6, .	2.5	1
39	Individual behaviors and dynamic self-assembly of active colloids. Chinese Science Bulletin, 2017, 62, 194-208.	0.7	1
40	Efficient and Fast Immuno-labeling of Clarified Tissues Using Low-Field Enhanced Diffusion. IEEE Transactions on Biomedical Engineering, 2021, 68, 1-1.	4.2	0