

Lailai Zhu

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,785
citations

471061

17
h-index

264894

42
g-index

48
all docs

48
docs citations

48
times ranked

1964
citing authors

#	ARTICLE	IF	CITATIONS
1	An efficient multilayer RBF neural network and its application to regression problems. <i>Neural Computing and Applications</i> , 2022, 34, 4133-4150.	3.2	24
2	Self-peeling of frozen water droplets upon impacting a cold surface. <i>Communications Physics</i> , 2022, 5, .	2.0	13
3	Viscoelastic levitation. <i>Journal of Fluid Mechanics</i> , 2022, 943, .	1.4	1
4	Optimizing low-Reynolds-number predation via optimal control and reinforcement learning. <i>Journal of Fluid Mechanics</i> , 2022, 944, .	1.4	12
5	Propulsion of an elastic filament in a shear-thinning fluid. <i>Soft Matter</i> , 2021, 17, 3829-3839.	1.2	8
6	Non-unique bubble dynamics in a vertical capillary with an external flow. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	5
7	Rayleigh-Taylor instability of viscous liquid films under a temperature-controlled inclined substrate. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	9
8	Low-Reynolds-number, biflagellated Quincke swimmers with multiple forms of motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	12
9	Upcoming flow promotes the bundle formation of bacterial flagella. <i>Biophysical Journal</i> , 2021, 120, 4391-4398.	0.2	4
10	A low-Reynolds-number actuator driven by instability: rotating or oscillating. <i>Nonlinear Dynamics</i> , 2021, 106, 2005.	2.7	0
11	Multilayer perceptron neural network activated by adaptive Gaussian radial basis function and its application to predict lid-driven cavity flow. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2021, 37, 1757-1772.	1.5	6
12	A laser-engraved wearable sensor for sensitive detection of uric acid and tyrosine in sweat. <i>Nature Biotechnology</i> , 2020, 38, 217-224.	9.4	683
13	A note on a swirling squirmer in a shear-thinning fluid. <i>Physics of Fluids</i> , 2020, 32, .	1.6	11
14	Squirming in a viscous fluid enclosed by a Brinkman medium. <i>Physical Review E</i> , 2020, 101, 063105.	0.8	11
15	Harnessing elasticity to generate self-oscillation via an electrohydrodynamic instability. <i>Journal of Fluid Mechanics</i> , 2020, 888, .	1.4	15
16	Effects of the intrinsic curvature of elastic filaments on the propulsion of a flagellated microrobot. <i>Physics of Fluids</i> , 2020, 32, .	1.6	15
17	Particle motion nearby rough surfaces. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	17
18	Actuating a curved elastic filament for bidirectional propulsion. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	6

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19	Film thickness distribution in gravity-driven pancake-shaped droplets rising in a Hele-Shaw cell. <i>Journal of Fluid Mechanics</i> , 2019, 874, 1021-1040.	1.4	12
20	Inertial gravity current produced by the drainage of a cylindrical reservoir from an outer or inner edge. <i>Journal of Fluid Mechanics</i> , 2019, 874, 185-209.	1.4	6
21	Sorting by interfacial tension (SIFT): Label-free enzyme sorting using droplet microfluidics. <i>Analytica Chimica Acta</i> , 2019, 1089, 108-114.	2.6	17
22	Flow around a squirmer in a shear-thinning fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 268, 101-110.	1.0	23
23	The Hydrodynamics of a Micro-Rocket Propelled by a Deformable Bubble. <i>Fluids</i> , 2019, 4, 48.	0.8	6
24	Propulsion driven by self-oscillation via an electrohydrodynamic instability. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	17
25	Pattern formation in oil-in-water emulsions exposed to a salt gradient. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	1
26	Inertial manipulation of bubbles in rectangular microfluidic channels. <i>Lab on A Chip</i> , 2018, 18, 1035-1046.	3.1	30
27	Time-dependent motion of a confined bubble in a tube: transition between two steady states. <i>Journal of Fluid Mechanics</i> , 2018, 857, .	1.4	10
28	Viscous Taylor droplets in axisymmetric and planar tubes: from Bretherton's theory to empirical models. <i>Microfluidics and Nanofluidics</i> , 2018, 22, 1.	1.0	35
29	Rotation of a low-Reynolds-number watermill: theory and simulations. <i>Journal of Fluid Mechanics</i> , 2018, 849, 57-75.	1.4	2
30	Swimming with a cage: low-Reynolds-number locomotion inside a droplet. <i>Soft Matter</i> , 2017, 13, 3161-3173.	1.2	27
31	Bifurcation Dynamics of a Particle-Encapsulating Droplet in Shear Flow. <i>Physical Review Letters</i> , 2017, 119, 064502.	2.9	17
32	Laboratory layered latte. <i>Nature Communications</i> , 2017, 8, 1960.	5.8	20
33	A pancake droplet translating in a Hele-Shaw cell: lubrication film and flow field. <i>Journal of Fluid Mechanics</i> , 2016, 798, 955-969.	1.4	30
34	The stability of a rising droplet: an inertialess non-modal growth mechanism. <i>Journal of Fluid Mechanics</i> , 2016, 786, .	1.4	8
35	The motion of a deforming capsule through a corner. <i>Journal of Fluid Mechanics</i> , 2015, 770, 374-397.	1.4	28
36	Squirming through shear-thinning fluids. <i>Journal of Fluid Mechanics</i> , 2015, 784, .	1.4	80

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37	Hydrodynamic Focusing of an Elastic Capsule in Stokes flow: An Exploratory Numerical Study. <i>Procedia IUTAM</i> , 2015, 16, 41-49.	1.2	2
38	The dynamics of a capsule in a wall-bounded oscillating shear flow. <i>Physics of Fluids</i> , 2015, 27, .	1.6	16
39	Motion of an elastic capsule in a constricted microchannel. <i>European Physical Journal E</i> , 2015, 38, 134.	0.7	23
40	A microfluidic device to sort capsules by deformability: a numerical study. <i>Soft Matter</i> , 2014, 10, 7705-7711.	1.2	49
41	Rotational propulsion enabled by inertia. <i>European Physical Journal E</i> , 2014, 37, 16.	0.7	4
42	Low-Reynolds-number swimming in a capillary tube. <i>Journal of Fluid Mechanics</i> , 2013, 726, 285-311.	1.4	120
43	HEMOLYSIS ANALYSIS OF AXIAL BLOOD PUMPS WITH VARIOUS STRUCTURE IMPELLERS. <i>Journal of Mechanics in Medicine and Biology</i> , 2013, 13, 1350054.	0.3	8
44	Self-propulsion in viscoelastic fluids: Pushers vs. pullers. <i>Physics of Fluids</i> , 2012, 24, .	1.6	152
45	Micropropulsion and microrheology in complex fluids via symmetry breaking. <i>Physics of Fluids</i> , 2012, 24, .	1.6	79
46	Locomotion by tangential deformation in a polymeric fluid. <i>Physical Review E</i> , 2011, 83, 011901.	0.8	77
47	Shape Optimization of the Diffuser Blade of an Axial Blood Pump by Computational Fluid Dynamics. <i>Artificial Organs</i> , 2010, 34, 185-192.	1.0	34
48	Video: Instability and bifurcation of a particle-encapsulating droplet in creeping shear flow. , 0, , .		0