On Shun Pak

List of Publications by Year
in descending order

45 papers	2,453 citations	394421 19 h-index	243625 44 g-index
47 all docs	47 docs citations	47 times ranked	2632 citing authors

#	Article	IF	Citations
1	Pore Dynamics of Lipid Vesicles Under Light-Induced Osmotic Stress. Physical Review Applied, 2022, 17, .	3.8	2
2	The effect of particle geometry on squirming through a shear-thinning fluid. Journal of Fluid Mechanics, 2022, 938, .	3.4	12
3	Viscoelastic levitation. Journal of Fluid Mechanics, 2022, 943, .	3.4	1
4	Gait switching and targeted navigation of microswimmers via deep reinforcement learning. Communications Physics, 2022, 5, .	5.3	21
5	Propulsion of an elastic filament in a shear-thinning fluid. Soft Matter, 2021, 17, 3829-3839.	2.7	8
6	Mechanical rotation at low Reynolds number via reinforcement learning. Physics of Fluids, 2021, 33, .	4.0	13
7	A 3Dâ€Printed Selfâ€Learning Threeâ€Linkedâ€Sphere Robot for Autonomous Confinedâ€Space Navigation. Advanced Intelligent Systems, 2021, 3, 2100039.	6.1	5
8	Wall-induced translation of a rotating particle in a shear-thinning fluid. Journal of Fluid Mechanics, 2021, 927, .	3.4	5
9	A laser-engraved wearable sensor for sensitive detection of uric acid and tyrosine in sweat. Nature Biotechnology, 2020, 38, 217-224.	17.5	683
10	A note on a swirling squirmer in a shear-thinning fluid. Physics of Fluids, 2020, 32, .	4.0	11
11	Helical locomotion in a porous medium. Physical Review E, 2020, 102, 043111.	2.1	10
12	Roads to Smart Artificial Microswimmers. Advanced Intelligent Systems, 2020, 2, 1900137.	6.1	67
13	Medical micro/nanorobots in complex media. Chemical Society Reviews, 2020, 49, 8088-8112.	38.1	180
14	Squirming in a viscous fluid enclosed by a Brinkman medium. Physical Review E, 2020, 101, 063105.	2.1	11
15	Realization of a push-me-pull-you swimmer at low Reynolds numbers. Bioinspiration and Biomimetics, 2020, 15, 064001.	2.9	5
16	Self-learning how to swim at low Reynolds number. Physical Review Fluids, 2020, 5, .	2.5	46
17	Nonlocal shear-thinning effects substantially enhance helical propulsion. Physical Review Fluids, 2020, 5, .	2.5	10
18	Sorting by interfacial tension (SIFT): Label-free enzyme sorting using droplet microfluidics. Analytica Chimica Acta, 2019, 1089, 108-114.	5.4	17

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19	Effects of surfactant transport on electrodeformation of a viscous drop. Physical Review E, 2019, 99, 063104.	2.1	9
20	Flow around a squirmer in a shear-thinning fluid. Journal of Non-Newtonian Fluid Mechanics, 2019, 268, 101-110.	2.4	23
21	Hydrodynamic Capture and Release of Passively Driven Particles by Active Particles Under Hele-Shaw Flows. Journal of Nonlinear Science, 2018, 28, 1379-1396.	2.1	2
22	A Rapid and Low-Cost Pathogen Detection Platform by Using a Molecular Agglutination Assay. ACS Central Science, 2018, 4, 1485-1494.	11.3	15
23	Squirming motion in a Brinkman medium. Journal of Fluid Mechanics, 2018, 855, 554-573.	3.4	23
24	Ellipsoidal Brownian self-driven particles in a magnetic field. Physical Review E, 2017, 95, 032605.	2.1	11
25	Maximizing propulsive thrust of a driven filament at low Reynolds number via variable flexibility. Soft Matter, 2017, 13, 2339-2347.	2.7	16
26	Propulsion via flexible flapping in granular media. Physical Review E, 2017, 96, 012907.	2.1	6
27	Swimming efficiency in a shear-thinning fluid. Physical Review E, 2017, 96, 062606.	2.1	18
28	Quantification of a latex agglutination assay for bacterial pathogen detection in a low-cost capillary-driven fluidic platform. , 2016, , .		0
29	Characteristics of undulatory locomotion in granular media. Physics of Fluids, 2016, 28, .	4.0	9
30	On the gating of mechanosensitive channels by fluid shear stress. Acta Mechanica Sinica/Lixue Xuebao, 2016, 32, 1012-1022.	3.4	11
31	Squirming through shear-thinning fluids. Journal of Fluid Mechanics, 2015, 784, .	3.4	80
32	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
33	A note on the breathing mode of an elastic sphere in Newtonian and complex fluids. Physics of Fluids, 2015, 27, .	4.0	38
34	Filaments in curved streamlines: rapid formation ofStaphylococcus aureusbiofilm streamers. New Journal of Physics, 2014, 16, 065024.	2.9	50
35	Viscous Marangoni migration of a drop in a Poiseuille flow at low surface PÃ©clet numbers. Journal of Fluid Mechanics, 2014, 753, 535-552.	3.4	54
36	Generalized squirming motion of a sphere. Journal of Engineering Mathematics, 2014, 88, 1-28.	1.2	129

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37	Hydrodynamics of the double-wave structure of insect spermatozoa flagella. Journal of the Royal Society Interface, 2012, 9, 1908-1924.	3.4	12
38	Micropropulsion and microrheology in complex fluids via symmetry breaking. Physics of Fluids, 2012, 24, .	4.0	79
39	Cargoâ€Towing Fuelâ€Free Magnetic Nanoswimmers for Targeted Drug Delivery. Small, 2012, 8, 460-467.	10.0	393
40	Extensibility enables locomotion under isotropic drag. Physics of Fluids, 2011, 23, 081702.	4.0	5
41	High-speed propulsion of flexible nanowire motors: Theory and experiments. Soft Matter, 2011, 7, 8169.	2.7	195
42	The transient swimming of a waving sheet. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 107-126.	2.1	38
43	Pumping by flapping in a viscoelastic fluid. Physical Review E, 2010, 81, 036312.	2.1	48
44	Two-dimensional flagellar synchronization in viscoelastic fluids. Journal of Fluid Mechanics, 2010, 646, 505-515.	3.4	42
45	Dissipative Solitons in Coupled Complex Ginzburgâ€“Landau Equations. Journal of the Physical Society of Japan, 2009, 78, 084001.	1.6	11