

# On Shun Pak

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7904163/publications.pdf>

Version: 2024-02-01

45  
papers

2,453  
citations

393982

19  
h-index

243296

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. <i>Physical Review Applied</i> , 2022, 17, .                                       | 1.5  | 2         |
| 2  | The effect of particle geometry on squirming through a shear-thinning fluid. <i>Journal of Fluid Mechanics</i> , 2022, 938, .                          | 1.4  | 12        |
| 3  | Viscoelastic levitation. <i>Journal of Fluid Mechanics</i> , 2022, 943, .  | 1.4  | 1         |
| 4  | Gait switching and targeted navigation of microswimmers via deep reinforcement learning. <i>Communications Physics</i> , 2022, 5, .                    | 2.0  | 21        |
| 5  | Propulsion of an elastic filament in a shear-thinning fluid. <i>Soft Matter</i> , 2021, 17, 3829-3839.   | 1.2  | 8         |
| 6  | Mechanical rotation at low Reynolds number via reinforcement learning. <i>Physics of Fluids</i> , 2021, 33, .  | 1.6  | 13        |
| 7  | A 3D-Printed Self-Learning Three-Linked-Sphere Robot for Autonomous Confined-Space Navigation. <i>Advanced Intelligent Systems</i> , 2021, 3, 2100039. | 3.3  | 5         |
| 8  | Wall-induced translation of a rotating particle in a shear-thinning fluid. <i>Journal of Fluid Mechanics</i> , 2021, 927, .                            | 1.4  | 5         |
| 9  | 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       |
| 10 | A note on a swirling squirmer in a shear-thinning fluid. <i>Physics of Fluids</i> , 2020, 32, .  | 1.6  | 11        |
| 11 | Helical locomotion in a porous medium. <i>Physical Review E</i> , 2020, 102, 043111.   | 0.8  | 10        |
| 12 | Roads to Smart Artificial Microswimmers. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900137.   | 3.3  | 67        |
| 13 | Medical micro/nanorobots in complex media. <i>Chemical Society Reviews</i> , 2020, 49, 8088-8112.  | 18.7 | 180       |
| 14 | Squirming in a viscous fluid enclosed by a Brinkman medium. <i>Physical Review E</i> , 2020, 101, 063105.  | 0.8  | 11        |
| 15 | Realization of a push-me-pull-you swimmer at low Reynolds numbers. <i>Bioinspiration and Biomimetics</i> , 2020, 15, 064001.                           | 1.5  | 5         |
| 16 | Self-learning how to swim at low Reynolds number. <i>Physical Review Fluids</i> , 2020, 5, .   | 1.0  | 46        |
| 17 | Nonlocal shear-thinning effects substantially enhance helical propulsion. <i>Physical Review Fluids</i> , 2020, 5, .                                   | 1.0  | 10        |
| 18 | Sorting by interfacial tension (SIFT): Label-free enzyme sorting using droplet microfluidics. <i>Analytica Chimica Acta</i> , 2019, 1089, 108-114.     | 2.6  | 17        |

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|----|--|-----|-----------|
| 19 | Effects of surfactant transport on electrodeformation of a viscous drop. <i>Physical Review E</i> , 2019, 99, 063104.  | 0.8 | 9         |
| 20 | Flow around a squirmer in a shear-thinning fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 268, 101-110.  | 1.0 | 23        |
| 21 | Hydrodynamic Capture and Release of Passively Driven Particles by Active Particles Under Hele-Shaw Flows. <i>Journal of Nonlinear Science</i> , 2018, 28, 1379-1396.       | 1.0 | 2         |
| 22 | A Rapid and Low-Cost Pathogen Detection Platform by Using a Molecular Agglutination Assay. <i>ACS Central Science</i> , 2018, 4, 1485-1494.                                | 5.3 | 15        |
| 23 | Squirming motion in a Brinkman medium. <i>Journal of Fluid Mechanics</i> , 2018, 855, 554-573.   | 1.4 | 23        |
| 24 | Ellipsoidal Brownian self-driven particles in a magnetic field. <i>Physical Review E</i> , 2017, 95, 032605.   | 0.8 | 11        |
| 25 | Maximizing propulsive thrust of a driven filament at low Reynolds number via variable flexibility. <i>Soft Matter</i> , 2017, 13, 2339-2347.                               | 1.2 | 16        |
| 26 | Propulsion via flexible flapping in granular media. <i>Physical Review E</i> , 2017, 96, 012907.   | 0.8 | 6         |
| 27 | Swimming efficiency in a shear-thinning fluid. <i>Physical Review E</i> , 2017, 96, 062606.  | 0.8 | 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. <i>Physics of Fluids</i> , 2016, 28, .   | 1.6 | 9         |
| 30 | On the gating of mechanosensitive channels by fluid shear stress. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 1012-1022.   | 1.5 | 11        |
| 31 | Squirming through shear-thinning fluids. <i>Journal of Fluid Mechanics</i> , 2015, 784, .  | 1.4 | 80        |
| 32 | Gating of a mechanosensitive channel due to cellular flows. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9822-9827. | 3.3 | 27        |
| 33 | A note on the breathing mode of an elastic sphere in Newtonian and complex fluids. <i>Physics of Fluids</i> , 2015, 27, .  | 1.6 | 38        |
| 34 | Filaments in curved streamlines: rapid formation of <i>Staphylococcus aureus</i> biofilm streamers. <i>New Journal of Physics</i> , 2014, 16, 065024.                      | 1.2 | 50        |
| 35 | Viscous Marangoni migration of a drop in a Poiseuille flow at low surface Péclet numbers. <i>Journal of Fluid Mechanics</i> , 2014, 753, 535-552.                          | 1.4 | 54        |
| 36 | Generalized squirring motion of a sphere. <i>Journal of Engineering Mathematics</i> , 2014, 88, 1-28.  | 0.6 | 129       |

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|----|--|-----|-----------|
| 37 | Hydrodynamics of the double-wave structure of insect spermatozoa flagella. <i>Journal of the Royal Society Interface</i> , 2012, 9, 1908-1924.             | 1.5 | 12        |
| 38 | Micropropulsion and microrheology in complex fluids via symmetry breaking. <i>Physics of Fluids</i> , 2012, 24, .  | 1.6 | 79        |
| 39 | Cargoâ€Towing Fuelâ€Free Magnetic Nanoswimmers for Targeted Drug Delivery. <i>Small</i> , 2012, 8, 460-467.  | 5.2 | 393       |
| 40 | Extensibility enables locomotion under isotropic drag. <i>Physics of Fluids</i> , 2011, 23, 081702.  | 1.6 | 5         |
| 41 | High-speed propulsion of flexible nanowire motors: Theory and experiments. <i>Soft Matter</i> , 2011, 7, 8169.   | 1.2 | 195       |
| 42 | The transient swimming of a waving sheet. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 107-126. | 1.0 | 38        |
| 43 | Pumping by flapping in a viscoelastic fluid. <i>Physical Review E</i> , 2010, 81, 036312.  | 0.8 | 48        |
| 44 | Two-dimensional flagellar synchronization in viscoelastic fluids. <i>Journal of Fluid Mechanics</i> , 2010, 646, 505-515.                                  | 1.4 | 42        |
| 45 | Dissipative Solitons in Coupled Complex Ginzburgâ€Landau Equations. <i>Journal of the Physical Society of Japan</i> , 2009, 78, 084001.                    | 0.7 | 11        |