

# Vasily Kantsler

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

24  
papers

1,520  
citations

18  
h-index

28  
g-index

28  
ext. papers

1,774  
ext. citations

6.8  
avg, IF

4.88  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 24 | Curved ratchets improve bacteria rectification in microfluidic devices. <i>Physical Review E</i> , <b>2021</b> , 104, 014602  | 4.9  | 1         |
| 23 | Green algae scatter off sharp viscosity gradients. <i>Scientific Reports</i> , <b>2021</b> , 11, 399  | 4.9  | 5         |
| 22 | Pattern Engineering of Living Bacterial Colonies Using Meniscus-Driven Fluidic Channels. <i>ACS Synthetic Biology</i> , <b>2020</b> , 9, 1277-1283  | 5.7  | 8         |
| 21 | The effect of flow on swimming bacteria controls the initial colonization of curved surfaces. <i>Nature Communications</i> , <b>2020</b> , 11, 2851   | 17.4 | 22        |
| 20 | Geometric control of bacterial surface accumulation. <i>Physical Review E</i> , <b>2019</b> , 99, 052607  | 2.4  | 12        |
| 19 | Disorder-induced topological transition in porous media flow networks. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2019</b> , 268, 66-74   | 2.7  | 2         |
| 18 | Scattering of biflagellate microswimmers from surfaces. <i>Physical Review E</i> , <b>2017</b> , 96, 023102   | 2.4  | 48        |
| 17 | Entrainment dominates the interaction of microalgae with micron-sized objects. <i>Nature Communications</i> , <b>2016</b> , 7, 12518  | 17.4 | 48        |
| 16 | Microalgae Scatter off Solid Surfaces by Hydrodynamic and Contact Forces. <i>Physical Review Letters</i> , <b>2015</b> , 115, 258102  | 7.4  | 49        |
| 15 | Bimodal rheotactic behavior reflects flagellar beat asymmetry in human sperm cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 15904-9 | 11.5 | 63        |
| 14 | Rheotaxis facilitates upstream navigation of mammalian sperm cells. <i>ELife</i> , <b>2014</b> , 3, e02403  | 8.9  | 141       |
| 13 | Author response: Rheotaxis facilitates upstream navigation of mammalian sperm cells <b>2014</b> ,   |      | 3         |
| 12 | Membrane viscosity determined from shear-driven flow in giant vesicles. <i>Physical Review Letters</i> , <b>2013</b> , 111, 038103  | 7.4  | 59        |
| 11 | Ciliary contact interactions dominate surface scattering of swimming eukaryotes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 1187-92    | 11.5 | 196       |
| 10 | Fluctuations, dynamics, and the stretch-coil transition of single actin filaments in extensional flows. <i>Physical Review Letters</i> , <b>2012</b> , 108, 038103                                      | 7.4  | 70        |
| 9  | Human spermatozoa migration in microchannels reveals boundary-following navigation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 8007-10 | 11.5 | 193       |
| 8  | Fluid velocity fluctuations in a suspension of swimming protists. <i>Physical Review Letters</i> , <b>2010</b> , 105, 188101  | 10.1 | 28        |

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|---|---|---------|
| 7 | Phase diagram of single vesicle dynamical states in shear flow. <i>Physical Review Letters</i> , <b>2009</b> , 102, 118105.4  | 88      |
| 6 | Dynamics of a vesicle in general flow. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 11444-7                                  | 11.5 89 |
| 5 | Dynamics of interacting vesicles and rheology of vesicle suspension in shear flow. <i>Europhysics Letters</i> , <b>2008</b> , 82, 58005   | 1.6 60  |
| 4 | Vesicle dynamics in time-dependent elongation flow: wrinkling instability. <i>Physical Review Letters</i> , <b>2007</b> , 99, 178102  | 7.4 68  |
| 3 | Continuous particle size separation and size sorting using ultrasound in a microchannel. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2006</b> , 2006, P01012-P01012 | 1.9 68  |
| 2 | Orientation and dynamics of a vesicle in tank-treading motion in shear flow. <i>Physical Review Letters</i> , <b>2005</b> , 95, 258101  | 7.4 178 |
| 1 | The effect of flow on swimming bacteria controls the initial colonization of curved surfaces  | 1       |