

# Shervin Bagheri

## List of Publications by Citations

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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.

44  
papers

2,436  
citations

23  
h-index

49  
g-index

51  
ext. papers

3,085  
ext. citations

4.2  
avg, IF

5.39  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 44 | Spectral analysis of nonlinear flows. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 641, 115-127  | 3.7  | 1064      |
| 43 | Koopman-mode decomposition of the cylinder wake. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 726, 596-623   | 3.7  | 163       |
| 42 | Global stability of a jet in crossflow. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 624, 33-44  | 3.7  | 148       |
| 41 | Modal Analysis of Fluid Flows: Applications and Outlook. <i>AIAA Journal</i> , <b>2020</b> , 58, 998-1022   | 2.1  | 124       |
| 40 | Input-Output analysis, model reduction and control of the flat-plate boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 620, 263-298                             | 3.7  | 109       |
| 39 | Input-Output Analysis and Control Design Applied to a Linear Model of Spatially Developing Flows. <i>Applied Mechanics Reviews</i> , <b>2009</b> , 62,                          | 8.6  | 102       |
| 38 | Matrix-Free Methods for the Stability and Control of Boundary Layers. <i>AIAA Journal</i> , <b>2009</b> , 47, 1057-1068   | 2.1  | 67        |
| 37 | Spontaneous symmetry breaking of a hinged flapping filament generates lift. <i>Physical Review Letters</i> , <b>2012</b> , 109, 154502  | 7.4  | 50        |
| 36 | Feedback control of three-dimensional optimal disturbances using reduced-order models. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 677, 63-102                            | 3.7  | 45        |
| 35 | Adaptive and Model-Based Control Theory Applied to Convectively Unstable Flows. <i>Applied Mechanics Reviews</i> , <b>2014</b> , 66,  | 8.6  | 43        |
| 34 | Effects of weak noise on oscillating flows: Linking quality factor, Floquet modes, and Koopman spectrum. <i>Physics of Fluids</i> , <b>2014</b> , 26, 094104                    | 4.4  | 40        |
| 33 | The stabilizing effect of streaks on Tollmien-Schlichting and oblique waves: A parametric study. <i>Physics of Fluids</i> , <b>2007</b> , 19, 078103                            | 4.4  | 40        |
| 32 | Bifurcation and stability analysis of a jet in cross-flow: onset of global instability at a low velocity ratio. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 696, 94-121   | 3.7  | 38        |
| 31 | A framework for computing effective boundary conditions at the interface between free fluid and a porous medium. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 812, 866-889 | 3.7  | 35        |
| 30 | Passive appendages generate drift through symmetry breaking. <i>Nature Communications</i> , <b>2014</b> , 5, 5310   | 17.4 | 35        |
| 29 | Model Reduction of the Nonlinear Complex Ginzburg-Landau Equation. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2010</b> , 9, 1284-1302                                | 2.8  | 31        |
| 28 | Secondary threshold amplitudes for sinuous streak breakdown. <i>Physics of Fluids</i> , <b>2011</b> , 23, 074103  | 4.4  | 31        |

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|----|--|------|----|
| 27 | Transition delay using control theory. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2011</b> , 369, 1365-81                             | 3    | 30 |
| 26 | Transition delay in a boundary layer flow using active control. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 731, 288-311   | 3.7  | 28 |
| 25 | Self-sustained global oscillations in a jet in crossflow. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2011</b> , 25, 129-146  | 2.3  | 28 |
| 24 | On the role of adaptivity for robust laminar flow control. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 767,  | 3.7  | 25 |
| 23 | Transfer of mass and momentum at rough and porous surfaces. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 884,   | 3.7  | 24 |
| 22 | A stable fluid-structure-interaction solver for low-density rigid bodies using the immersed boundary projection method. <i>Journal of Computational Physics</i> , <b>2016</b> , 305, 300-318 | 4.1  | 23 |
| 21 | Reduced-order models for flow control: balanced models and Koopman modes. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , <b>2010</b> , 43-50                           | 0.3  | 13 |
| 20 | Energy efficiency and performance limitations of linear adaptive control for transition delay. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 810, 60-81                                  | 3.7  | 10 |
| 19 | A computational continuum model of poroelastic beds. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2017</b> , 473, 20160932                | 2.4  | 9  |
| 18 | In-flight active wave cancelation with delayed-x-LMS control algorithm in a laminar boundary layer. <i>Experiments in Fluids</i> , <b>2016</b> , 57, 1                                       | 2.5  | 9  |
| 17 | Computational Hydrodynamic Stability and Flow Control Based on Spectral Analysis of Linear Operators. <i>Archives of Computational Methods in Engineering</i> , <b>2012</b> , 19, 341-379    | 7.8  | 8  |
| 16 | Modeling waves in fluids flowing over and through poroelastic media. <i>International Journal of Multiphase Flow</i> , <b>2019</b> , 110, 148-164  | 3.6  | 8  |
| 15 | Steady moving contact line of water over a no-slip substrate. <i>European Physical Journal: Special Topics</i> , <b>2020</b> , 229, 1897-1921  | 2.3  | 7  |
| 14 | Interaction between hairy surfaces and turbulence for different surface time scales. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 861, 556-584  | 3.7  | 6  |
| 13 | Stabilizing effect of porosity on a flapping filament. <i>Journal of Fluids and Structures</i> , <b>2016</b> , 61, 362-375   | 3.1  | 5  |
| 12 | Fluid interfacial energy drives the emergence of three-dimensional periodic structures in micropillar scaffolds. <i>Nature Physics</i> , <b>2021</b> , 17, 794-800                           | 16.2 | 4  |
| 11 | A Soft Material Flow Sensor for Micro Air Vehicles. <i>Soft Robotics</i> , <b>2021</b> , 8, 119-127  | 9.2  | 4  |
| 10 | Centralised Versus Decentralised Active Control of Boundary Layer Instabilities. <i>Flow, Turbulence and Combustion</i> , <b>2014</b> , 93, 537-553  | 2.5  | 3  |

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|---|--|-----|---|
| 9 | Passive control of a falling sphere by elliptic-shaped appendages. <i>Physical Review Fluids</i> , <b>2017</b> , 2,  | 2.8 | 3 |
| 8 | Higher-Order Homogenized Boundary Conditions for Flows Over Rough and Porous Surfaces. <i>Transport in Porous Media</i> , <b>2021</b> , 136, 1-42                          | 3.1 | 3 |
| 7 | Experimental study of a three-dimensional cylinder-filament system. <i>Experiments in Fluids</i> , <b>2015</b> , 56, 1   | 2.5 | 2 |
| 6 | Edge state modulation by mean viscosity gradients. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 838, 379-403  | 3.7 | 2 |
| 5 | Roughness on liquid-infused surfaces induced by capillary waves. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 915,  | 3.7 | 2 |
| 4 | Droplet leaping governs microstructured surface wetting. <i>Soft Matter</i> , <b>2019</b> , 15, 9528-9536  | 3.6 | 2 |
| 3 | Linear control of 3D disturbances on a flat-plate. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , <b>2010</b> , 373-378                              | 0.3 | 1 |
| 2 | Droplet Impact on Surfaces with Asymmetric Microscopic Features. <i>Langmuir</i> , <b>2021</b> , 37, 10849-10858   | 4   | 1 |
| 1 | Experimental Characterization and Mathematical Modeling of the Adsorption of Proteins and Cells on Biomimetic Hydroxyapatite.. <i>ACS Omega</i> , <b>2022</b> , 7, 908-920 | 3.9 | 0 |