

Shervin Bagheri

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

3,635
citations

279487

23
h-index

182168

51
g-index

51
all docs

51
docs citations

51
times ranked

2058
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral analysis of nonlinear flows. Journal of Fluid Mechanics, 2009, 641, 115-127.	1.4	1,592
2	Modal Analysis of Fluid Flows: Applications and Outlook. AIAA Journal, 2020, 58, 998-1022.	1.5	301
3	Koopman-mode decomposition of the cylinder wake. Journal of Fluid Mechanics, 2013, 726, 596-623.	1.4	219
4	Global stability of a jet in crossflow. Journal of Fluid Mechanics, 2009, 624, 33-44.	1.4	194
5	Input-Output Analysis and Control Design Applied to a Linear Model of Spatially Developing Flows. Applied Mechanics Reviews, 2009, 62, .	4.5	131
6	Input-output analysis, model reduction and control of the flat-plate boundary layer. Journal of Fluid Mechanics, 2009, 620, 263-298.	1.4	131
7	Matrix-Free Methods for the Stability and Control of Boundary Layers. AIAA Journal, 2009, 47, 1057-1068.	1.5	84
8	Spontaneous Symmetry Breaking of a Hinged Flapping Filament Generates Lift. Physical Review Letters, 2012, 109, 154502.	2.9	65
9	Adaptive and Model-Based Control Theory Applied to Convectively Unstable Flows. Applied Mechanics Reviews, 2014, 66, .	4.5	61
10	A framework for computing effective boundary conditions at the interface between free fluid and a porous medium. Journal of Fluid Mechanics, 2017, 812, 866-889.	1.4	57
11	Feedback control of three-dimensional optimal disturbances using reduced-order models. Journal of Fluid Mechanics, 2011, 677, 63-102.	1.4	56
12	Effects of weak noise on oscillating flows: Linking quality factor, Floquet modes, and Koopman spectrum. Physics of Fluids, 2014, 26, .	1.6	54
13	The stabilizing effect of streaks on Tollmien-Schlichting and oblique waves: A parametric study. Physics of Fluids, 2007, 19, .	1.6	50
14	Bifurcation and stability analysis of a jet in cross-flow: onset of global instability at a low velocity ratio. Journal of Fluid Mechanics, 2012, 696, 94-121.	1.4	48
15	Passive appendages generate drift through symmetry breaking. Nature Communications, 2014, 5, 5310.	5.8	44
16	Model Reduction of the Nonlinear Complex Ginzburg-Landau Equation. SIAM Journal on Applied Dynamical Systems, 2010, 9, 1284-1302.	0.7	43
17	Transition delay in a boundary layer flow using active control. Journal of Fluid Mechanics, 2013, 731, 288-311.	1.4	39
18	Transfer of mass and momentum at rough and porous surfaces. Journal of Fluid Mechanics, 2020, 884, .	1.4	39

#	ARTICLE	IF	CITATIONS
19	Self-sustained global oscillations in a jet in crossflow. Theoretical and Computational Fluid Dynamics, 2011, 25, 129-146.	0.9	38
20	Transition delay using control theory. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 1365-1381.	1.6	35
21	On the role of adaptivity for robust laminar flow control. Journal of Fluid Mechanics, 2015, 767, .	1.4	34
22	A stable fluid-structure-interaction solver for low-density rigid bodies using the immersed boundary projection method. Journal of Computational Physics, 2016, 305, 300-318.	1.9	34
23	Secondary threshold amplitudes for sinuous streak breakdown. Physics of Fluids, 2011, 23, .	1.6	33
24	Steady moving contact line of water over a no-slip substrate. European Physical Journal: Special Topics, 2020, 229, 1897-1921.	1.2	19
25	Energy efficiency and performance limitations of linear adaptive control for transition delay. Journal of Fluid Mechanics, 2017, 810, 60-81.	1.4	17
26	Fluid interfacial energy drives the emergence of three-dimensional periodic structures in micropillar scaffolds. Nature Physics, 2021, 17, 794-800.	6.5	17
27	Reduced-order models for flow control: balanced models and Koopman modes. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 43-50.	0.1	17
28	Higher-Order Homogenized Boundary Conditions for Flows Over Rough and Porous Surfaces. Transport in Porous Media, 2021, 136, 1-42.	1.2	16
29	A computational continuum model of poroelastic beds. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160932.	1.0	13
30	Predicting drag on rough surfaces by transfer learning of empirical correlations. Journal of Fluid Mechanics, 2022, 933, .	1.4	13
31	In-flight active wave cancelation with delayed-x-LMS control algorithm in a laminar boundary layer. Experiments in Fluids, 2016, 57, 1.	1.1	12
32	Interaction between hairy surfaces and turbulence for different surface time scales. Journal of Fluid Mechanics, 2019, 861, 556-584.	1.4	12
33	Modeling waves in fluids flowing over and through poroelastic media. International Journal of Multiphase Flow, 2019, 110, 148-164.	1.6	12
34	Droplet Impact on Asymmetric Hydrophobic Microstructures. Langmuir, 2022, 38, 7956-7964.	1.6	12
35	Computational Hydrodynamic Stability and Flow Control Based on Spectral Analysis of Linear Operators. Archives of Computational Methods in Engineering, 2012, 19, 341-379.	6.0	11
36	Roughness on liquid-infused surfaces induced by capillary waves. Journal of Fluid Mechanics, 2021, 915, .	1.4	11

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37	Nanoscale sheared droplet: volume-of-fluid, phase-field and no-slip molecular dynamics. Journal of Fluid Mechanics, 2022, 940, .	1.4	10
38	Droplet Impact on Surfaces with Asymmetric Microscopic Features. Langmuir, 2021, 37, 10849-10858.	1.6	9
39	A Soft Material Flow Sensor for Micro Air Vehicles. Soft Robotics, 2021, 8, 119-127.	4.6	7
40	Stabilizing effect of porosity on a flapping filament. Journal of Fluids and Structures, 2016, 61, 362-375.	1.5	6
41	Lift induced by slip inhomogeneities in lubricated contacts. Physical Review Fluids, 2020, 5, .	1.0	6
42	Centralised Versus Decentralised Active Control of Boundary Layer Instabilities. Flow, Turbulence and Combustion, 2014, 93, 537-553.	1.4	5
43	Droplet leaping governs microstructured surface wetting. Soft Matter, 2019, 15, 9528-9536.	1.2	5
44	Edge state modulation by mean viscosity gradients. Journal of Fluid Mechanics, 2018, 838, 379-403.	1.4	4
45	Passive control of a falling sphere by elliptic-shaped appendages. Physical Review Fluids, 2017, 2, .	1.0	3
46	Experimental Characterization and Mathematical Modeling of the Adsorption of Proteins and Cells on Biomimetic Hydroxyapatite. ACS Omega, 2022, 7, 908-920.	1.6	3
47	Heat transfer increase by convection in liquid-infused surfaces for laminar and turbulent flows. Journal of Fluid Mechanics, 2022, 941, .	1.4	3
48	Near-wall turbulence alteration with the transpiration-resistance model. Journal of Fluid Mechanics, 2022, 942, .	1.4	3
49	Experimental study of a three-dimensional cylinderâ€‘filament system. Experiments in Fluids, 2015, 56, 1.	1.1	2
50	Linear control of 3D disturbances on a flat-plate. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 373-378.	0.1	2