Mohamed Gad-el-Hak

List of Publications by Year
in descending order

94 papers	5,669 citations	101496 36 h-index	85498 71 g-index
95 all docs	95 docs citations	95 times ranked	3164 citing authors

#	Article	IF	Citations
1	Slippery surfaces: A decade of progress. Physics of Fluids, 2021, 33, .	1.6	43
2	Activated carbon-doped polystyrene fibers for direct contact membrane desalination. Emergent Materials, 2020, 3, 807-814.	3.2	13
3	Academic Malaise: Bring Back the Groves of Academe. Academic Questions, 2019, 32, 384-391.	0.0	2
4	Aerodynamic heating in transitional hypersonic boundary layers: Role of second-mode instability. Physics of Fluids, 2018, 30, .	1.6	103
5	Newly identified principle for aerodynamic heating in hypersonic flows. Journal of Fluid Mechanics, 2018, 855, 152-180.	1.4	66
6	Editorial: In defense of scienceâ€"What would John do?. Physics of Fluids, 2017, 29, 020602.	1.6	2
7	Flow Control. , 2016, , 32-1-32-21.		0
8	Transition in Hypersonic Boundary Layers: Role of Dilatational Waves. AIAA Journal, 2016, 54, 3039-3049.	1.5	85
9	Book Review - Essentials of Micro- and Nanofluidics: With Applications to the Biological and Chemical Sciences. A. Terrence Conlisk. Cambridge University Press, 2013. 537 pages. ISBN 978-0-521-88168-5.. Journal of Fluid Mechanics, 2015, 779, 859-860.	1.4	2
10	Transition in hypersonic boundary layers. AIP Advances, 2015, 5, .	0.6	50
11	Polymeric Slippery Coatings: Nature and Applications. Polymers, 2014, 6, 1266-1311.	2.0	42
12	Monologues of Learning. Academic Questions, 2014, 27, 310-312.	0.0	1
13	Bring back The Groves of Academe. Engineering Education Letters, 2014, 2015, .	0.0	0
14	Novel method to characterize superhydrophobic coatings. Journal of Colloid and Interface Science, 2013, 395, 315-321.	5.0	17
15	Comment on â€œExperimental study of skin friction drag reduction on superhydrophobic flat plates in high Reynolds number boundary layer flowâ€• [Phys. Fluids 25, 025103 (2013)]. Physics of Fluids, 2013, 25, 079101.	1.6	5
16	Convective Mass Transfer From Submerged Superhydrophobic Surfaces. International Journal of Flow Control, 2013, 5, 79-88.	0.4	10
17	Convective Mass Transfer From Submerged Superhydrophobic Surfaces: Turbulent Flow. International Journal of Flow Control, 2013, 5, 143-152.	0.4	6
18	Salinity effects on the degree of hydrophobicity and longevity for superhydrophobic fibrous coatings. Journal of Applied Polymer Science, 2012, 124, 5021-5026.	1.3	8

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19	Sustainability of superhydrophobicity under pressure. Physics of Fluids, 2012, 24, .	1.6	61
20	Superhydrophobic surfaces: From the lotus leaf to the submarine. Comptes Rendus - Mecanique, 2012, 340, 18-34.	2.1	167
21	Scaling of statistics in wall-bounded turbulent flows. Comptes Rendus - Mecanique, 2012, 340, 420-433.	2.1	8
22	Influence of Flow on Longevity of Superhydrophobic Coatings. Langmuir, 2012, 28, 9759-9766.	1.6	97
23	Effects of hydrostatic pressure on the drag reduction of submerged aerogel-particle coatings. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 399, 62-70.	2.3	32
24	Fabrication of superhydrophobic fiber coatings by DCâ€biased ACâ€electrospinning. Journal of Applied Polymer Science, 2012, 123, 1112-1119.	1.3	36
25	<i>In situ</i>, noninvasive characterization of superhydrophobic coatings. Review of Scientific Instruments, 2011, 82, 045109.	0.6	44
26	Effects of Outer Scales on the Peaks of Near-Wall Reynolds Stresses. , 2011, , .		1
27	Turbulent boundary layers: is the wall falling or merely wobbling?. Acta Mechanica, 2011, 218, 309-318.	1.1	8
28	Modeling drag reduction and meniscus stability of superhydrophobic surfaces comprised of random roughness. Physics of Fluids, 2011, 23, .	1.6	84
29	Normal and cross-flow Reynolds stresses: differences between confined and semi-confined flows. Experiments in Fluids, 2010, 49, 213-223.	1.1	16
30	Kolmogorov scaling of turbulent flow in the vicinity of the wall. Physica D: Nonlinear Phenomena, 2010, 239, 1288-1295.	1.3	7
31	The Glut of Academic Publishing: A Call for a New Culture. Academic Questions, 2010, 23, 276-286.	0.0	8
32	Facets and Scope of Large-Scale Disasters. Natural Hazards Review, 2010, 11, 1-6.	0.8	4
33	Suppression of absolute instabilities in the flow inside a compliant tube. Communications in Numerical Methods in Engineering, 2009, 25, 505-531.	1.3	7
34	Near-wall behavior of turbulent wall-bounded flows. International Journal of Heat and Fluid Flow, 2009, 30, 993-1006.	1.1	42
35	Evidence of Nonlogarithmic Behavior of Turbulent Channel and Pipe Flow. AIAA Journal, 2009, 47, 535-541.	1.5	14
36	Flow Control and the Energy Crisis. International Journal of Flow Control, 2009, 1, 175-178.	0.4	0

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37	Flow in Compliant Tubes: Control and Stabilization by Multilayered Coatings. International Journal of Flow Control, 2009, 1, 199-211.	0.4	2
38	Near-Wall Behavior of Turbulent Wall-Bounded Flows. , 2008, , .		2
39	Challenges in Modeling Liquid and Gas Flows in Micro/Nano Devices. Computational and Experimental Methods in Structures, 2008, , 1-36.	0.2	0
40	Tsunamis: manifestation and aftermath. , 2008, , 258-292.		15
41	Curvature Law of the Wall for Swirling Axial Flows in Rotating Machinery. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 169-178.	0.8	0
42	The Taming of the Shrew: Why Is It so Difficult to Control Turbulence?. , 2007, , 1-24.		6
43	Recent developments in scaling of wall-bounded flows. Progress in Aerospace Sciences, 2006, 42, 419-467.	6.3	49
44	Gas and Liquid Transport at the Microscale. Heat Transfer Engineering, 2006, 27, 13-29.	1.2	44
45	Structure of the Canonical Turbulent Wall-Bounded Flow. AIAA Journal, 2006, 44, 2500-2504.	1.5	5
46	Mean-Velocity Profile of Turbulent Boundary Layers Approaching Separation. AIAA Journal, 2006, 44, 2465-2474.	1.5	18
47	Liquids: The holy grail of microfluidic modeling. Physics of Fluids, 2005, 17, 100612.	1.6	25
48	Preface: Transport phenomena in micro- and nanodevices. Physics of Fluids, 2005, 17, 100501.	1.6	1
49	Structure of Turbulent Boundary Layers with Zero Pressure Gradient (invited). , 2005, , .		2
50	COMPLIANT COATINGS: THE SIMPLER ALTERNATIVE. Lecture Notes Series, Institute for Mathematical Sciences, 2005, , 357-404.	0.2	0
51	Transport phenomena in microdevices. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2004, 84, 494-498.	0.9	14
52	Comments on â€œcritical view on new results in micro-fluid mechanicsâ€• International Journal of Heat and Mass Transfer, 2003, 46, 3941-3945.	2.5	36
53	Debate Concerning the Mean-Velocity Profile of a Turbulent Boundary Layer. AIAA Journal, 2003, 41, 565-572.	1.5	67
54	Generalized Logarithmic Law and Its Consequences. AIAA Journal, 2003, 41, 40-48.	1.5	63

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55	Micropumps, microturbines, and flow physics in microdevices. , 2003, 5055, 242.		3
56	Compliant coatings for drag reduction. Progress in Aerospace Sciences, 2002, 38, 77-99.	6.3	79
57	An analytical asymptotic solution to a conjugate heat transfer problem. International Journal of Heat and Mass Transfer, 2002, 45, 2485-2500.	2.5	19
58	Micro-Air-Vehicles: Can They be Controlled Better?. Journal of Aircraft, 2001, 38, 419-429.	1.7	81
59	Flow Control: The Future. Journal of Aircraft, 2001, 38, 402-418.	1.7	121
60	MEMS applications in turbulence and flow control. Progress in Aerospace Sciences, 1999, 35, 101-203.	6.3	118
61	The Fluid Mechanics of Microdevicesâ€"The Freeman Scholar Lecture. Journal of Fluids Engineering, Transactions of the ASME, 1999, 121, 5-33.	0.8	1,111
62	MEMS-based pressure and shear stress sensors for turbulent flows. Measurement Science and Technology, 1999, 10, 665-686.	1.4	136
63	Flow control: Current status and future prospects. Experimental Thermal and Fluid Science, 1998, 16, 157-164.	1.5	1
64	Compliant coatings: The simpler alternative. Experimental Thermal and Fluid Science, 1998, 16, 141-156.	1.5	25
65	New Approach to Constrained Shape Optimization Using Genetic Algorithms. AIAA Journal, 1998, 36, 51-61.	1.5	21
66	Frontiers of Flow Control. , 1998, , 109-153.		4
67	Flow and load characteristics of microbearings with slip. Journal of Micromechanics and Microengineering, 1997, 7, 55-64.	1.5	30
68	Reflections on Fifty Years. Applied Mechanics Reviews, 1997, 50, T1-T2.	4.5	1
69	The Last Conundrum. Applied Mechanics Reviews, 1997, 50, i-ii.	4.5	3
70	Navier-Stokes Simulations of a Novel Viscous Pump. Journal of Fluids Engineering, Transactions of the ASME, 1997, 119, 372-382.	0.8	54
71	A Novel Pump for MEMS Applications. Journal of Fluids Engineering, Transactions of the ASME, 1996, 118, 624-627.	0.8	109
72	Fluid Mechanics in the Next Century. Applied Mechanics Reviews, 1996, 49, iii-iv.	4.5	0

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73	Compliant Coatings: A Decade of Progress. Applied Mechanics Reviews, 1996, 49, S147-S157.	4.5	53
74	Modern Developments in Flow Control. Applied Mechanics Reviews, 1996, 49, 365-379.	4.5	245
75	Questions in Fluid Mechanics: Stokesâ€™ Hypothesis for a Newtonian, Isotropic Fluid. Journal of Fluids Engineering, Transactions of the ASME, 1995, 117, 3-5.	0.8	69
76	Reynolds Number Effects in Wall-Bounded Turbulent Flows. Applied Mechanics Reviews, 1994, 47, 307-365.	4.5	218
77	Interactive control of turbulent boundary layers - A futuristic overview. AIAA Journal, 1994, 32, 1753-1765.	1.5	105
78	Splendor of fluids in motion. Progress in Aerospace Sciences, 1992, 29, 81-123.	6.3	6
79	Separation Control: Review. Journal of Fluids Engineering, Transactions of the ASME, 1991, 113, 5-30.	0.8	310
80	Flow Control by Suction. , 1990, , 357-360.		4
81	Selective suction for controlling bursting events in a boundary layer. AIAA Journal, 1989, 27, 308-314.	1.5	66
82	The Art and Science of Flow Control. Lecture Notes in Engineering, 1989, , 211-290.	0.1	5
83	Visualization Techniques for Unsteady Flows: An Overview. Journal of Fluids Engineering, Transactions of the ASME, 1988, 110, 231-243.	0.8	18
84	Unsteady Separation on Lifting Surfaces. Applied Mechanics Reviews, 1987, 40, 441-453.	4.5	23
85	Simulation of large-eddy structures in a turbulent boundary layer. AIAA Journal, 1987, 25, 1207-1215.	1.5	13
86	A drag reduction method for turbulent boundary layers. , 1987, , .		10
87	Boundary Layer Interactions With Compliant Coatings: An Overview. Applied Mechanics Reviews, 1986, 39, 511-524.	4.5	62
88	The Response of Elastic and Viscoelastic Surfaces to a Turbulent Boundary Layer. Journal of Applied Mechanics, Transactions ASME, 1986, 53, 206-212.	1.1	57
89	Coherent structures in a turbulent boundary layer. Part 1: Generation of â€˜â€˜artificialâ€™â€™ bursts. Physics of Fluids, 1986, 29, 2124.	1.4	36
90	The pitching delta wing. AIAA Journal, 1985, 23, 1660-1665.	1.5	102

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91	The Dynamics of Turbulent Spots. , 1985, , 123-155.		43
92	On the interaction of compliant coatings with boundary-layer flows. Journal of Fluid Mechanics, 1984, 140, 257-280.	1.4	123
93	On the stability of the decelerating laminar boundary layer. Journal of Fluid Mechanics, 1984, 138, 297-323.	1.4	27
94	On the growth of turbulent regions in laminar boundary layers. Journal of Fluid Mechanics, 1981, 110, 73-95.	1.4	205