

Tamer A Zaki

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.

83

papers

1,881

citations

25

h-index

40

g-index

94

ext. papers

2,461

ext. citations

3.6

avg, IF

5.63

L-index

#	Paper	IF	Citations
83	Mode interaction and the bypass route to transition. <i>Journal of Fluid Mechanics</i> , 2005 , 531, 85-111	3.7	156
82	From Streaks to Spots and on to Turbulence: Exploring the Dynamics of Boundary Layer Transition. <i>Flow, Turbulence and Combustion</i> , 2013 , 91, 451-473	2.5	90
81	Direct numerical simulations of transition in a compressor cascade: the influence of free-stream turbulence. <i>Journal of Fluid Mechanics</i> , 2010 , 665, 57-98	3.7	83
80	Conditional sampling of transitional boundary layers in pressure gradients. <i>Journal of Fluid Mechanics</i> , 2013 , 728, 306-339	3.7	75
79	Effect of wall heating on turbulent boundary layers with temperature-dependent viscosity. <i>Journal of Fluid Mechanics</i> , 2013 , 726, 196-225	3.7	73
78	Turbulence and skin friction modification in channel flow with streamwise-aligned superhydrophobic surface texture. <i>Physics of Fluids</i> , 2014 , 26, 095102	4.4	72
77	Stability of zero-pressure-gradient boundary layer distorted by unsteady Klebanoff streaks. <i>Journal of Fluid Mechanics</i> , 2011 , 681, 116-153	3.7	71
76	Continuous mode transition and the effects of pressure gradient. <i>Journal of Fluid Mechanics</i> , 2006 , 563, 357	3.7	71
75	On shear sheltering and the structure of vortical modes in single- and two-fluid boundary layers. <i>Journal of Fluid Mechanics</i> , 2009 , 626, 111-147	3.7	67
74	Streak instabilities in boundary layers beneath free-stream turbulence. <i>Journal of Fluid Mechanics</i> , 2014 , 741, 280-315	3.7	66
73	Large Eddy Simulation of Transitional Separated Flow over a Flat Plate and a Compressor Blade. <i>Flow, Turbulence and Combustion</i> , 2012 , 88, 19-44	2.5	61
72	Boundary-layer transition by interaction of discrete and continuous modes. <i>Journal of Fluid Mechanics</i> , 2008 , 604, 199-233	3.7	58
71	Inner-outer interactions of large-scale structures in turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2016 , 790, 128-157	3.7	52
70	Linear stability analysis of channel flow of viscoelastic Oldroyd-B and FENE-P fluids. <i>Journal of Fluid Mechanics</i> , 2013 , 737, 249-279	3.7	50
69	Receptivity, instability and breakdown of Görtler flow. <i>Journal of Fluid Mechanics</i> , 2011 , 682, 362-396	3.7	49
68	Signature of large-scale motions on turbulent/non-turbulent interface in boundary layers. <i>Journal of Fluid Mechanics</i> , 2017 , 819, 165-187	3.7	39
67	Effect of Reynolds Number on Turbulent Drag Reduction by Superhydrophobic Surface Textures. <i>Flow, Turbulence and Combustion</i> , 2015 , 95, 277-300	2.5	34

66	Direct Computations of Boundary Layers Distorted by Migrating Wakes in a Linear Compressor Cascade. <i>Flow, Turbulence and Combustion</i> , 2009 , 83, 307-322	2.5	33
65	The equivalence between volume averaging and method of planes definitions of the pressure tensor at a plane. <i>Journal of Chemical Physics</i> , 2011 , 135, 024512	3.9	31
64	Floquet analysis of secondary instability of boundary layers distorted by Klebanoff streaks and Tollmien-Schlichting waves. <i>Physics of Fluids</i> , 2008 , 20, 124102	4.4	30
63	Streak evolution in viscoelastic Couette flow. <i>Journal of Fluid Mechanics</i> , 2014 , 742, 520-551	3.7	29
62	Stability analysis of separated flows subject to control by zero-net-mass-flux jet. <i>Physics of Fluids</i> , 2015 , 27, 024107	4.4	27
61	Simulations of natural transition in viscoelastic channel flow. <i>Journal of Fluid Mechanics</i> , 2017 , 820, 232-262	3.7	25
60	Linear and nonlinear evolution of a localized disturbance in polymeric channel flow. <i>Journal of Fluid Mechanics</i> , 2014 , 760, 278-303	3.7	25
59	Control-volume representation of molecular dynamics. <i>Physical Review E</i> , 2012 , 85, 056705	2.4	25
58	The dynamics of spanwise vorticity perturbations in homogeneous viscoelastic shear flow. <i>Journal of Fluid Mechanics</i> , 2015 , 777, 327-363	3.7	24
57	DeepM&Mnet: Inferring the electroconvection multiphysics fields based on operator approximation by neural networks. <i>Journal of Computational Physics</i> , 2021 , 436, 110296	4.1	22
56	Geometric decomposition of the conformation tensor in viscoelastic turbulence. <i>Journal of Fluid Mechanics</i> , 2018 , 842, 395-427	3.7	20
55	Streak instability in viscoelastic Couette flow. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	18
54	Modal and non-modal stability of boundary layers forced by spanwise wall oscillations. <i>Journal of Fluid Mechanics</i> , 2015 , 778, 389-427	3.7	17
53	Application of a self-organizing map to identify the turbulent-boundary-layer interface in a transitional flow. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	16
52	Turbulence in intermittent transitional boundary layers and in turbulence spots. <i>Journal of Fluid Mechanics</i> , 2019 , 860, 350-383	3.7	16
51	The influence of harmonic wall motion on transitional boundary layers. <i>Journal of Fluid Mechanics</i> , 2014 , 760, 63-94	3.7	15
50	Simulations of rib-roughened rough-to-smooth turbulent channel flows. <i>Journal of Fluid Mechanics</i> , 2018 , 843, 419-449	3.7	14
49	Absolute instability in viscoelastic mixing layers. <i>Physics of Fluids</i> , 2014 , 26, 014103	4.4	13

48	Data-enabled prediction of streak breakdown in pressure-gradient boundary layers. <i>Journal of Fluid Mechanics</i> , 2016 , 801, 43-64	3.7	12
47	The Effect of wake Turbulence Intensity on Transition in a Compressor Cascade. <i>Flow, Turbulence and Combustion</i> , 2014 , 93, 555-576	2.5	12
46	Linear and nonlinear instability waves in spatially developing two-phase mixing layers. <i>Physics of Fluids</i> , 2010 , 22, 052103	4.4	12
45	Perturbative expansions of the conformation tensor in viscoelastic flows. <i>Journal of Fluid Mechanics</i> , 2019 , 858, 377-406	3.7	12
44	The method of planes pressure tensor for a spherical subvolume. <i>Journal of Chemical Physics</i> , 2014 , 140, 054506	3.9	11
43	Flow estimation of boundary layers using DNS-based wall shear information. <i>International Journal of Control</i> , 2011 , 84, 1310-1325	1.5	11
42	Transition induced by linear and nonlinear perturbation growth in flow past a compressor blade. <i>Journal of Fluid Mechanics</i> , 2017 , 820, 604-632	3.7	10
41	Conditional statistics and flow structures in turbulent boundary layers buffeted by free-stream disturbances. <i>Journal of Fluid Mechanics</i> , 2019 , 866, 526-566	3.7	10
40	Two-point stress-strain-rate correlation structure and non-local eddy viscosity in turbulent flows. <i>Journal of Fluid Mechanics</i> , 2021 , 914,	3.7	10
39	Absolute/convective instability of planar viscoelastic jets. <i>Physics of Fluids</i> , 2015 , 27, 014110	4.4	9
38	Viscoelastic shear flow over a wavy surface. <i>Journal of Fluid Mechanics</i> , 2016 , 801, 392-429	3.7	9
37	Phase diagram for viscoelastic Poiseuille flow over a wavy surface. <i>Physics of Fluids</i> , 2018 , 30, 113101	4.4	9
36	Spectral Universality of Elastoinertial Turbulence. <i>Physical Review Letters</i> , 2021 , 127, 074501	7.4	9
35	DeepM&Mnet for hypersonics: Predicting the coupled flow and finite-rate chemistry behind a normal shock using neural-network approximation of operators. <i>Journal of Computational Physics</i> , 2021 , 447, 110698	4.1	9
34	Kriging-enhanced ensemble variational data assimilation for scalar-source identification in turbulent environments. <i>Journal of Computational Physics</i> , 2019 , 398, 108856	4.1	8
33	Discrete adjoint of fractional-step incompressible Navier-Stokes solver in curvilinear coordinates and application to data assimilation. <i>Journal of Computational Physics</i> , 2019 , 396, 427-450	4.1	8
32	Turbulent thermal boundary layers with temperature-dependent viscosity. <i>International Journal of Heat and Fluid Flow</i> , 2014 , 49, 43-52	2.4	8
31	Turbulent flow over a liquid layer revisited: multi-equation turbulence modelling. <i>Journal of Fluid Mechanics</i> , 2011 , 683, 357-394	3.7	8

30	On the relationship between the wall-shear-stress and transient-growth disturbances in a laminar boundary layer. <i>Physics of Fluids</i> , 2010 , 22, 054103	4.4	8
29	Direct Numerical Simulation of By-Pass and Separation-Induced Transition in a Linear Compressor Cascade 2006 , 1421		8
28	Spatial reconstruction of steady scalar sources from remote measurements in turbulent flow. <i>Journal of Fluid Mechanics</i> , 2019 , 870, 316-352	3.7	7
27	Reconstruction of Scalar Source Intensity Based on Sensor Signal in Turbulent Channel Flow. <i>Flow, Turbulence and Combustion</i> , 2016 , 97, 1211-1233	2.5	7
26	Detection algorithm for turbulent interfaces and large-scale structures in intermittent flows. <i>Computers and Fluids</i> , 2018 , 175, 142-158	2.8	7
25	An exact representation of the nonlinear triad interaction terms in spectral space. <i>Journal of Fluid Mechanics</i> , 2014 , 748, 175-188	3.7	7
24	Inertioelastic Poiseuille flow over a wavy surface. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	7
23	Stochastic Lagrangian dynamics of vorticity. Part 1. General theory for viscous, incompressible fluids. <i>Journal of Fluid Mechanics</i> , 2020 , 901,	3.7	7
22	Sensitivity of high-speed boundary-layer stability to base-flow distortion. <i>Journal of Fluid Mechanics</i> , 2019 , 859, 476-515	3.7	7
21	The effect of cube-roughened walls on the response of rough-to-smooth (RTS) turbulent channel flows. <i>International Journal of Heat and Fluid Flow</i> , 2018 , 72, 174-185	2.4	7
20	A nonlinear PSE method for two-fluid shear flows with complex interfacial topology. <i>Journal of Computational Physics</i> , 2011 , 230, 6756-6777	4.1	6
19	Low-frequency selectivity in flat-plate boundary layer with elliptic leading edge. <i>Journal of Fluid Mechanics</i> , 2019 , 866, 239-262	3.7	5
18	A localized momentum constraint for non-equilibrium molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 2015 , 142, 074110	3.9	5
17	Nonlinearly most dangerous disturbance for high-speed boundary-layer transition. <i>Journal of Fluid Mechanics</i> , 2019 , 876, 87-121	3.7	5
16	Identifying Turbulent Spots in Transitional Boundary Layers. <i>Journal of Turbomachinery</i> , 2013 , 135,	1.8	5
15	Instability waves and transition in adverse-pressure-gradient boundary layers. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	5
14	The mean conformation tensor in viscoelastic turbulence. <i>Journal of Fluid Mechanics</i> , 2019 , 865, 363-380	3.7	5
13	The effect of a low-viscosity near-wall film on bypass transition in boundary layers. <i>Journal of Fluid Mechanics</i> , 2015 , 772, 330-360	3.7	4

12	Dilute suspension of neutrally buoyant particles in viscoelastic turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2019 , 875, 286-320	3.7	4
11	Stochastic Lagrangian dynamics of vorticity. Part 2. Application to near-wall channel-flow turbulence. <i>Journal of Fluid Mechanics</i> , 2020 , 901,	3.7	4
10	High-Reynolds-number fractal signature of nascent turbulence during transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 3461-3468	11.5	3
9	Wavy Taylor vortices in molecular dynamics simulation of cylindrical Couette flow. <i>Physical Review E</i> , 2016 , 93, 043107	2.4	3
8	Evolutional deep neural network. <i>Physical Review E</i> , 2021 , 104, 045303	2.4	2
7	Viscoelasticity and the dynamics of concentrated particle suspension in channel flow. <i>Journal of Fluid Mechanics</i> , 2020 , 901,	3.7	2
6	The dynamics of settling particles in vertical channel flows: gravity, lift and particle clusters. <i>Journal of Fluid Mechanics</i> , 2021 , 918,	3.7	2
5	Turbulent Heat-Transfer Enhancement in Boundary Layers Exposed to Free-Stream Turbulence. <i>Flow, Turbulence and Combustion</i> , 2020 , 104, 381-402	2.5	1
4	Disturbance amplification in boundary layers over thin wall films. <i>Physics of Fluids</i> , 2016 , 28, 024108	4.4	1
3	State estimation in turbulent channel flow from limited observations. <i>Journal of Fluid Mechanics</i> , 2021 , 917,	3.7	1
2	Observation-infused simulations of high-speed boundary-layer transition. <i>Journal of Fluid Mechanics</i> , 2021 , 916,	3.7	1
1	Bypass Transition in Three-dimensional Time-dependent Boundary Layers. <i>Procedia IUTAM</i> , 2015 , 14, 274-281		