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List of Publications by Year
in descending order

79 papers	1,885 citations	304743 22 h-index	276875 41 g-index
82 all docs	82 docs citations	82 times ranked	908 citing authors

#	Article	IF	Citations
1	Towards Reconciling the Large-Scale Structure of Turbulent Boundary Layers in the Atmosphere and Laboratory. Boundary-Layer Meteorology, 2012, 145, 273-306.	2.3	212
2	Properties of the mean momentum balance in turbulent boundary layer, pipe and channel flows. Journal of Fluid Mechanics, 2005, 522, 303-327.	3.4	199
3	On the logarithmic mean profile. Journal of Fluid Mechanics, 2009, 638, 73-93.	3.4	99
4	Reynolds Number Dependence, Scaling, and Dynamics of Turbulent Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	1.5	89
5	On the Lamb vector divergence in Navierâ€“Stokes flows. Journal of Fluid Mechanics, 2008, 610, 261-284.	3.4	86
6	Near-surface particle image velocimetry measurements in a transitionally rough-wall atmospheric boundary layer. Journal of Fluid Mechanics, 2007, 580, 319-338.	3.4	57
7	Streamwise velocity statistics in turbulent boundary layers that spatially develop to high Reynolds number. Experiments in Fluids, 2013, 54, 1.	2.4	57
8	Stress gradient balance layers and scale hierarchies in wall-bounded turbulent flows. Journal of Fluid Mechanics, 2005, 532, 165-189.	3.4	54
9	Reynolds-number-dependent turbulent inertia and onset of log region in pipe flows. Journal of Fluid Mechanics, 2014, 757, 747-769.	3.4	53
10	Multiscaling in the Presence of Indeterminacy: Wall-Induced Turbulence. Multiscale Modeling and Simulation, 2005, 4, 936-959.	1.6	49
11	An experimental investigation of the near-field flow development in coaxial jets. Physics of Fluids, 2003, 15, 1233-1246.	4.0	48
12	Re-examining the logarithmic dependence of the mean velocity distribution in polymer drag reduced wall-bounded flow. Physics of Fluids, 2012, 24, .	4.0	43
13	The transient force profile of low-speed droplet impact: measurements and model. Journal of Fluid Mechanics, 2019, 867, 300-322.	3.4	38
14	Experimental study of turbulent Poiseuilleâ€“Couette flow. Physics of Fluids, 2000, 12, 865-875.	4.0	35
15	Time averaging in turbulence settings may reveal an infinite hierarchy of length scales. Discrete and Continuous Dynamical Systems, 2009, 24, 781-807.	0.9	35
16	Scaling heat transfer in fully developed turbulent channel flow. International Journal of Heat and Mass Transfer, 2005, 48, 5284-5296.	4.8	34
17	THIRD MOMENTS AND THE ROLE OF ANISOTROPY FROM VELOCITY SHEAR IN THE SOLAR WIND. Astrophysical Journal, 2011, 736, 44.	4.5	31
18	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. Journal of Fluid Mechanics, 2019, 871, 377-400.	3.4	28

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19	Mean dynamics of transitional boundary-layer flow. Journal of Fluid Mechanics, 2011, 682, 617-651.	3.4	27
20	Spanwise vorticity structure in turbulent boundary layers. International Journal of Heat and Fluid Flow, 1996, 17, 363-376.	2.4	25
21	Temporally optimized spanwise vorticity sensor measurements in turbulent boundary layers. Experiments in Fluids, 2015, 56, 1.	2.4	24
22	Scaling properties of the mean wall-normal velocity in zero-pressure-gradient boundary layers. Physical Review Fluids, 2016, 1, .	2.5	24
23	Emergence of the four layer dynamical regime in turbulent pipe flow. Physics of Fluids, 2012, 24, 045107.	4.0	22
24	Self-similarity in the inertial region of wall turbulence. Physical Review E, 2014, 90, 063015.	2.1	22
25	Mesoscaling of Reynolds Shear Stress in Turbulent Channel and Pipe Flows.. AIAA Journal, 2005, 43, 2350-2353.	2.6	21
26	Normal impact force of Rayleigh jets. Physical Review Fluids, 2019, 4, .	2.5	20
27	On scaling the mean momentum balance and its solutions in turbulent Couetteâ€“Poiseuille flow. Journal of Fluid Mechanics, 2007, 573, 371-398.	3.4	19
28	An invariant representation of mean inertia: theoretical basis for a log law in turbulent boundary layers. Journal of Fluid Mechanics, 2017, 813, 594-617.	3.4	19
29	A uniform momentum zoneâ€“vortical fissure model of the turbulent boundary layer. Journal of Fluid Mechanics, 2019, 858, 609-633.	3.4	19
30	Influences of boundary layer scale separation on the vorticity transport contribution to turbulent inertia. Physics of Fluids, 2013, 25, 015108.	4.0	18
31	High-order generalisation of the diagnostic scaling for turbulent boundary layers. Journal of Turbulence, 2016, 17, 664-677.	1.4	18
32	The use of photoactivatable fluorophores in the study of turbulent pipe mixing: effects of inlet geometry. Measurement Science and Technology, 2000, 11, 1235-1250.	2.6	17
33	Mean dynamics of transitional channel flow. Journal of Fluid Mechanics, 2011, 678, 451-481.	3.4	17
34	Finite Reynolds number properties of a turbulent channel flow similarity solution. Physics of Fluids, 2015, 27, .	4.0	17
35	Properties of the mean momentum balance in polymer drag-reduced channel flow. Journal of Fluid Mechanics, 2018, 834, 409-433.	3.4	17
36	Efficacy of single-component MTV to measure turbulent wall-flow velocity derivative profiles at high resolution. Experiments in Fluids, 2017, 58, 1.	2.4	16

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37	A fast data reduction algorithm for molecular tagging velocimetry: the decoupled spatial correlation technique. Measurement Science and Technology, 2000, 11, 1282-1288.	2.6	15
38	Mean momentum balance analysis of rough-wall turbulent boundary layers. Physica D: Nonlinear Phenomena, 2010, 239, 1329-1337.	2.8	15
39	Mean equation based scaling analysis of fully-developed turbulent channel flow with uniform heat generation. International Journal of Heat and Mass Transfer, 2017, 115, 50-61.	4.8	15
40	A comparative study of the velocity and vorticity structure in pipes and boundary layers at friction Reynolds numbers up to. Journal of Fluid Mechanics, 2019, 869, 182-213.	3.4	14
41	Flow field characteristics in the near field region of particle-laden coaxial jets. Experiments in Fluids, 2005, 39, 885-894.	2.4	13
42	A self-sustaining process theory for uniform momentum zones and internal shear layers in high Reynolds number shear flows. Journal of Fluid Mechanics, 2020, 901, .	3.4	13
43	Probing the high mixing efficiency events in a lock-exchange flow through simultaneous velocity and temperature measurements. Physics of Fluids, 2021, 33, .	4.0	13
44	Comparison of thermal scaling properties between turbulent pipe and channel flows via DNS. International Journal of Thermal Sciences, 2015, 89, 43-57.	4.9	12
45	Mean flow structure in high aspect ratio microchannel flows. Experimental Thermal and Fluid Science, 2010, 34, 1077-1088.	2.7	11
46	Scaling properties of the equation for passive scalar transport in wall-bounded turbulent flows. International Journal of Heat and Mass Transfer, 2014, 70, 779-792.	4.8	11
47	Design and implementation of a hot-wire probe for simultaneous velocity and vorticity vector measurements in boundary layers. Experiments in Fluids, 2017, 58, 1.	2.4	9
48	Experimental Investigation of Droplet Impact on Metal Surfaces in Reduced Ambient Pressure. Procedia Manufacturing, 2017, 10, 730-736.	1.9	9
49	High-fidelity measurements in channel flow with polymer wall injection. Journal of Fluid Mechanics, 2019, 859, 851-886.	3.4	9
50	Wall-Bounded Flows. , 2007, , 871-907.		9
51	Spatial Structure of Negative â^,uËœ/â^,y in a Low RÎ¸ Turbulent Boundary Layer. Journal of Fluids Engineering, Transactions of the ASME, 1998, 120, 772-777.	1.5	8
52	A self-sustaining process model of inertial layer dynamics in high Reynolds number turbulent wall flows. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160090.	3.4	8
53	Properties of the inertial sublayer in adverse pressure-gradient turbulent boundary layers. Journal of Fluid Mechanics, 2022, 937, .	3.4	8
54	On the Singular Nature of Turbulent Boundary Layers. Procedia IUTAM, 2013, 9, 69-78.	1.2	7

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55	Spin-up in a tank induced by a rotating bluff body. Journal of Fluid Mechanics, 1999, 388, 49-68.	3.4	6
56	Statistical evidence of anasymptotic geometric structure to the momentum transporting motions in turbulent boundary layers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160084.	3.4	6
57	Evaluation of annual radiation and windiness over a playa: possibility of harvesting the solar and wind energies. Journal of Arid Environments, 2002, 52, 555-564.	2.4	5
58	Overview of a Methodology for Scaling the Indeterminate Equations of Wall Turbulence. AIAA Journal, 2006, 44, 2475-2481.	2.6	5
59	Properties of turbulent channel flow similarity solutions. Journal of Fluid Mechanics, 2021, 915, .	3.4	5
60	Stress equation based scaling framework for adverse pressure gradient turbulent boundary layers. International Journal of Heat and Fluid Flow, 2022, 93, 108885.	2.4	5
61	Approach to the 4/3 law for turbulent pipe and channel flows examined through a reformulated scale-by-scale energy budget. Journal of Fluid Mechanics, 2022, 931, .	3.4	5
62	Viscous wall region structure in high and low Reynolds number turbulent boundary layers. , 1996, , .		4
63	Effect of inlet conditions on scalar statistics in pipe mixing. AIChE Journal, 1997, 43, 1947-1954.	3.6	4
64	Connecting vortex regeneration with near-wall stress transport. , 1998, , .		4
65	A heat transfer model of fully developed turbulent channel flow. Journal of Fluid Mechanics, 2020, 884, .	3.4	4
66	Properties of the scalar variance transport equation in turbulent channel flow. Physical Review Fluids, 2019, 4, .	2.5	4
67	Time Resolved Torque of Three-Dimensional Rotating Bluff Bodies in a Cylindrical Tank. Journal of Fluids Engineering, Transactions of the ASME, 1998, 120, 23-28.	1.5	4
68	Bounded dissipation predicts finite asymptotic state of near-wall turbulence. Journal of Fluid Mechanics, 2022, 940, .	3.4	4
69	Downstream evolution of junction flow three-component velocity fluctuations through the lens of the diagnostic plot. International Journal of Heat and Fluid Flow, 2020, 85, 108665.	2.4	3
70	An investigation of channel flow with a smooth airâ€“water interface. Experiments in Fluids, 2015, 56, 1.	2.4	2
71	Properties of the kinetic energy budgets in wall-bounded turbulent flows. Physical Review Fluids, 2016, 1, .	2.5	2
72	Reynolds number scaling of pocket events in the viscous sublayer. Physical Review Fluids, 2017, 2, .	2.5	2

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73	Overview of a Methodology for Scaling the Indeterminate Equations of Wall Turbulence (invited). , 2005, , .		1
74	Statistical properties of streamline geometry in turbulent wall-flows. Physical Review Fluids, 2021, 6, .	2.5	1
75	Laboratory realization of an asymptotic wall flow. Journal of Fluid Mechanics, 2021, 918, .	3.4	1
76	Study of Near-field Dispersion through Large Groups of Obstacles. Journal of Asian Architecture and Building Engineering, 2004, 3, 305-309.	2.0	0
77	Statistical structure and mean dynamics of developing turbulent shear-wake flows. Experiments in Fluids, 2013, 54, 1.	2.4	0
78	Experimental Assessment of Symmetry Induced Higher-Moment Scaling Laws inÂTurbulent Pipe Flow. Springer Proceedings in Physics, 2021, , 167-172.	0.2	0
79	Modified Hierarchy Structure of Rough-Wall Flows. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 135-141.	0.2	0