

Jc Klewicki

List of Publications by Year in descending order

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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	Stress equation based scaling framework for adverse pressure gradient turbulent boundary layers. <i>International Journal of Heat and Fluid Flow</i> , 2022, 93, 108885.	2.4	5
2	Approach to the 4/3 law for turbulent pipe and channel flows examined through a reformulated scale-by-scale energy budget. <i>Journal of Fluid Mechanics</i> , 2022, 931, .	3.4	5
3	Properties of the inertial sublayer in adverse pressure-gradient turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2022, 937, .	3.4	8
4	Bounded dissipation predicts finite asymptotic state of near-wall turbulence. <i>Journal of Fluid Mechanics</i> , 2022, 940, .	3.4	4
5	Probing the high mixing efficiency events in a lock-exchange flow through simultaneous velocity and temperature measurements. <i>Physics of Fluids</i> , 2021, 33, .	4.0	13
6	Statistical properties of streamline geometry in turbulent wall-flows. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	1
7	Properties of turbulent channel flow similarity solutions. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	5
8	Laboratory realization of an asymptotic wall flow. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	3.4	1
9	Experimental Assessment of Symmetry Induced Higher-Moment Scaling Laws in Turbulent Pipe Flow. <i>Springer Proceedings in Physics</i> , 2021, , 167-172.	0.2	0
10	A heat transfer model of fully developed turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	3.4	4
11	Downstream evolution of junction flow three-component velocity fluctuations through the lens of the diagnostic plot. <i>International Journal of Heat and Fluid Flow</i> , 2020, 85, 108665.	2.4	3
12	A self-sustaining process theory for uniform momentum zones and internal shear layers in high Reynolds number shear flows. <i>Journal of Fluid Mechanics</i> , 2020, 901, .	3.4	13
13	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. <i>Journal of Fluid Mechanics</i> , 2019, 871, 377-400.	3.4	28
14	A comparative study of the velocity and vorticity structure in pipes and boundary layers at friction Reynolds numbers up to. <i>Journal of Fluid Mechanics</i> , 2019, 869, 182-213.	3.4	14
15	The transient force profile of low-speed droplet impact: measurements and model. <i>Journal of Fluid Mechanics</i> , 2019, 867, 300-322.	3.4	38
16	A uniform momentum zone "vortical fissure" model of the turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2019, 858, 609-633.	3.4	19
17	High-fidelity measurements in channel flow with polymer wall injection. <i>Journal of Fluid Mechanics</i> , 2019, 859, 851-886.	3.4	9
18	Properties of the scalar variance transport equation in turbulent channel flow. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	4

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19	Normal impact force of Rayleigh jets. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	20
20	Properties of the mean momentum balance in polymer drag-reduced channel flow. <i>Journal of Fluid Mechanics</i> , 2018, 834, 409-433.	3.4	17
21	An invariant representation of mean inertia: theoretical basis for a log law in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2017, 813, 594-617.	3.4	19
22	A self-sustaining process model of inertial layer dynamics in high Reynolds number turbulent wall flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160090.	3.4	8
23	Statistical evidence of an asymptotic geometric structure to the momentum transporting motions in turbulent boundary layers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160084.	3.4	6
24	Design and implementation of a hot-wire probe for simultaneous velocity and vorticity vector measurements in boundary layers. <i>Experiments in Fluids</i> , 2017, 58, 1.	2.4	9
25	Efficacy of single-component MTV to measure turbulent wall-flow velocity derivative profiles at high resolution. <i>Experiments in Fluids</i> , 2017, 58, 1.	2.4	16
26	Experimental Investigation of Droplet Impact on Metal Surfaces in Reduced Ambient Pressure. <i>Procedia Manufacturing</i> , 2017, 10, 730-736.	1.9	9
27	Mean equation based scaling analysis of fully-developed turbulent channel flow with uniform heat generation. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 50-61.	4.8	15
28	Reynolds number scaling of pocket events in the viscous sublayer. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	2
29	High-order generalisation of the diagnostic scaling for turbulent boundary layers. <i>Journal of Turbulence</i> , 2016, 17, 664-677.	1.4	18
30	Properties of the kinetic energy budgets in wall-bounded turbulent flows. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	2
31	Scaling properties of the mean wall-normal velocity in zero-pressure-gradient boundary layers. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	24
32	Finite Reynolds number properties of a turbulent channel flow similarity solution. <i>Physics of Fluids</i> , 2015, 27, .	4.0	17
33	Temporally optimized spanwise vorticity sensor measurements in turbulent boundary layers. <i>Experiments in Fluids</i> , 2015, 56, 1.	2.4	24
34	An investigation of channel flow with a smooth air-water interface. <i>Experiments in Fluids</i> , 2015, 56, 1.	2.4	2
35	Comparison of thermal scaling properties between turbulent pipe and channel flows via DNS. <i>International Journal of Thermal Sciences</i> , 2015, 89, 43-57.	4.9	12
36	Self-similarity in the inertial region of wall turbulence. <i>Physical Review E</i> , 2014, 90, 063015.	2.1	22

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37	Reynolds-number-dependent turbulent inertia and onset of log region in pipe flows. <i>Journal of Fluid Mechanics</i> , 2014, 757, 747-769.	3.4	53
38	Scaling properties of the equation for passive scalar transport in wall-bounded turbulent flows. <i>International Journal of Heat and Mass Transfer</i> , 2014, 70, 779-792.	4.8	11
39	Statistical structure and mean dynamics of developing turbulent shear-wake flows. <i>Experiments in Fluids</i> , 2013, 54, 1.	2.4	0
40	On the Singular Nature of Turbulent Boundary Layers. <i>Procedia IUTAM</i> , 2013, 9, 69-78.	1.2	7
41	Streamwise velocity statistics in turbulent boundary layers that spatially develop to high Reynolds number. <i>Experiments in Fluids</i> , 2013, 54, 1.	2.4	57
42	Influences of boundary layer scale separation on the vorticity transport contribution to turbulent inertia. <i>Physics of Fluids</i> , 2013, 25, 015108.	4.0	18
43	Emergence of the four layer dynamical regime in turbulent pipe flow. <i>Physics of Fluids</i> , 2012, 24, 045107.	4.0	22
44	Towards Reconciling the Large-Scale Structure of Turbulent Boundary Layers in the Atmosphere and Laboratory. <i>Boundary-Layer Meteorology</i> , 2012, 145, 273-306.	2.3	212
45	Re-examining the logarithmic dependence of the mean velocity distribution in polymer drag reduced wall-bounded flow. <i>Physics of Fluids</i> , 2012, 24, .	4.0	43
46	Mean dynamics of transitional channel flow. <i>Journal of Fluid Mechanics</i> , 2011, 678, 451-481.	3.4	17
47	Mean dynamics of transitional boundary-layer flow. <i>Journal of Fluid Mechanics</i> , 2011, 682, 617-651.	3.4	27
48	THIRD MOMENTS AND THE ROLE OF ANISOTROPY FROM VELOCITY SHEAR IN THE SOLAR WIND. <i>Astrophysical Journal</i> , 2011, 736, 44.	4.5	31
49	Mean flow structure in high aspect ratio microchannel flows. <i>Experimental Thermal and Fluid Science</i> , 2010, 34, 1077-1088.	2.7	11
50	Mean momentum balance analysis of rough-wall turbulent boundary layers. <i>Physica D: Nonlinear Phenomena</i> , 2010, 239, 1329-1337.	2.8	15
51	Reynolds Number Dependence, Scaling, and Dynamics of Turbulent Boundary Layers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2010, 132, .	1.5	89
52	Modified Hierarchy Structure of Rough-Wall Flows. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2010, , 135-141.	0.2	0
53	On the logarithmic mean profile. <i>Journal of Fluid Mechanics</i> , 2009, 638, 73-93.	3.4	99
54	Time averaging in turbulence settings may reveal an infinite hierarchy of length scales. <i>Discrete and Continuous Dynamical Systems</i> , 2009, 24, 781-807.	0.9	35

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55	On the Lamb vector divergence in Navier–Stokes flows. <i>Journal of Fluid Mechanics</i> , 2008, 610, 261-284.	3.4	86
56	Near-surface particle image velocimetry measurements in a transitionally rough-wall atmospheric boundary layer. <i>Journal of Fluid Mechanics</i> , 2007, 580, 319-338.	3.4	57
57	On scaling the mean momentum balance and its solutions in turbulent Couette–Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2007, 573, 371-398.	3.4	19
58	Wall-Bounded Flows. , 2007, , 871-907.		9
59	Overview of a Methodology for Scaling the Indeterminate Equations of Wall Turbulence. <i>AIAA Journal</i> , 2006, 44, 2475-2481.	2.6	5
60	Scaling heat transfer in fully developed turbulent channel flow. <i>International Journal of Heat and Mass Transfer</i> , 2005, 48, 5284-5296.	4.8	34
61	Mesoscaling of Reynolds Shear Stress in Turbulent Channel and Pipe Flows.. <i>AIAA Journal</i> , 2005, 43, 2350-2353.	2.6	21
62	Multiscaling in the Presence of Indeterminacy: Wall-Induced Turbulence. <i>Multiscale Modeling and Simulation</i> , 2005, 4, 936-959.	1.6	49
63	Flow field characteristics in the near field region of particle-laden coaxial jets. <i>Experiments in Fluids</i> , 2005, 39, 885-894.	2.4	13
64	Stress gradient balance layers and scale hierarchies in wall-bounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2005, 532, 165-189.	3.4	54
65	Properties of the mean momentum balance in turbulent boundary layer, pipe and channel flows. <i>Journal of Fluid Mechanics</i> , 2005, 522, 303-327.	3.4	199
66	Overview of a Methodology for Scaling the Indeterminate Equations of Wall Turbulence (invited). , 2005, , .		1
67	Study of Near-field Dispersion through Large Groups of Obstacles. <i>Journal of Asian Architecture and Building Engineering</i> , 2004, 3, 305-309.	2.0	0
68	An experimental investigation of the near-field flow development in coaxial jets. <i>Physics of Fluids</i> , 2003, 15, 1233-1246.	4.0	48
69	Evaluation of annual radiation and windiness over a playa: possibility of harvesting the solar and wind energies. <i>Journal of Arid Environments</i> , 2002, 52, 555-564.	2.4	5
70	A fast data reduction algorithm for molecular tagging velocimetry: the decoupled spatial correlation technique. <i>Measurement Science and Technology</i> , 2000, 11, 1282-1288.	2.6	15
71	The use of photoactivatable fluorophores in the study of turbulent pipe mixing: effects of inlet geometry. <i>Measurement Science and Technology</i> , 2000, 11, 1235-1250.	2.6	17
72	Experimental study of turbulent Poiseuille–Couette flow. <i>Physics of Fluids</i> , 2000, 12, 865-875.	4.0	35

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73	Spin-up in a tank induced by a rotating bluff body. <i>Journal of Fluid Mechanics</i> , 1999, 388, 49-68.	3.4	6
74	Connecting vortex regeneration with near-wall stress transport. , 1998, , .		4
75	Spatial Structure of Negative $\hat{u}\hat{w}/\hat{y}$ in a Low Ri Turbulent Boundary Layer. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1998, 120, 772-777.	1.5	8
76	Time Resolved Torque of Three-Dimensional Rotating Bluff Bodies in a Cylindrical Tank. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1998, 120, 23-28.	1.5	4
77	Effect of inlet conditions on scalar statistics in pipe mixing. <i>AIChE Journal</i> , 1997, 43, 1947-1954.	3.6	4
78	Viscous wall region structure in high and low Reynolds number turbulent boundary layers. , 1996, , .		4
79	Spanwise vorticity structure in turbulent boundary layers. <i>International Journal of Heat and Fluid Flow</i> , 1996, 17, 363-376.	2.4	25