Oliver Buxton

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6700947/publications.pdf

Version: 2024-02-01

48 papers	629 citations	566801 15 h-index	642321 23 g-index
49 all docs	49 docs citations	49 times ranked	485 citing authors

#	Article	IF	Citations
1	Amplification of enstrophy in the far field of an axisymmetric turbulent jet. Journal of Fluid Mechanics, 2010, 651, 483-502.	1.4	58
2	A robust post-processing method to determine skin friction in turbulent boundary layers from the velocity profile. Experiments in Fluids, 2015, 56, 1.	1.1	42
3	The effects of resolution and noise on kinematic features of fine-scale turbulence. Experiments in Fluids, 2011, 51, 1417-1437.	1.1	36
4	Experimental estimation of fluctuating velocity and scalar gradients in turbulence. Experiments in Fluids, 2012, 53, 925-942.	1.1	34
5	Mixture fraction, soot volume fraction, and velocity imaging in the soot-inception region of a turbulent non-premixed jet flame. Proceedings of the Combustion Institute, 2017, 36, 899-907.	2.4	31
6	The triple decomposition of a fluctuating velocity field in a multiscale flow. Physics of Fluids, 2015, 27, .	1.6	29
7	Power consumption and form drag of regular and fractalâ€shaped turbines in a stirred tank. AICHE Journal, 2017, 63, 843-854.	1.8	29
8	Influence of coherent structures on the evolution of an axisymmetric turbulent jet. Physics of Fluids, 2018, 30, .	1.6	25
9	Invariants of the velocity-gradient tensor in a spatially developing inhomogeneous turbulentÂflow. Journal of Fluid Mechanics, 2017, 817, 1-20.	1.4	23
10	On the Formation Mechanisms of Artificially Generated High Reynolds Number Turbulent Boundary Layers. Boundary-Layer Meteorology, 2016, 160, 201-224.	1.2	21
11	Turbulent entrainment into a cylinder wake from a turbulent background. Journal of Fluid Mechanics, 2020, 905, .	1.4	21
12	The convection of large and intermediate scale fluctuations in a turbulent mixing layer. Physics of Fluids, 2013, 25, .	1.6	18
13	The interaction between strain-rate and rotation in shear flow turbulence from inertial range to dissipative length scales. Physics of Fluids, 2011, 23, 061704.	1.6	17
14	The role of separation on the forces acting on a circular cylinder with a control rod. Journal of Fluid Mechanics, 2021, 915, .	1.4	16
15	Effect of blade modifications on the torque and flow field of radial impellers in stirred tanks. Physical Review Fluids, 2017, 2, .	1.0	16
16	Concurrent scale interactions in the far-field of a turbulent mixing layer. Physics of Fluids, 2014, 26, .	1.6	15
17	Behaviour of small-scale turbulence in the turbulent/non-turbulent interface region of developing turbulent jets. Journal of Fluid Mechanics, 2019, 879, 187-216.	1.4	15
18	Coherent structures shed by multiscale cut-in trailing edge serrations on lifting wings. Physics of Fluids, 2017, 29, .	1.6	14

#	Article	IF	Citations
19	Scale dependence of the alignment between strain rate and rotation in turbulent shear flow. Physical Review Fluids, 2016, 1, .	1.0	11
20	Near field development of artificially generated high Reynolds number turbulent boundary layers. Physical Review Fluids, 2016, 1, .	1.0	11
21	Interscale energy transfer in the merger of wakes of a multiscale array of rectangular cylinders. Physical Review Fluids, 2017, 2, .	1.0	11
22	On a PLIF quantification methodology in a nonlinear dye response regime. Experiments in Fluids, 2016, 57, 1.	1.1	10
23	Investigation of wakes generated by fractal plates in the compressible flow regime using large-eddy simulations. Physics of Fluids, 2020, 32, 105106.	1.6	10
24	Direct Numerical Simulation of Flow over a Triangular Airfoil Under Martian Conditions. AIAA Journal, 2022, 60, 3961-3972.	1.5	10
25	The kinematics of the reduced velocity gradient tensor in a fully developed turbulent free shear flow. Journal of Fluid Mechanics, 2015, 767, 627-658.	1.4	9
26	On the physical nature of the turbulent/turbulent interface. Journal of Fluid Mechanics, 2022, 942, .	1.4	9
27	Modulation of the velocity gradient tensor by concurrent large-scale velocity fluctuations in a turbulent mixing layer. Journal of Fluid Mechanics, 2015, 777, .	1.4	8
28	Wake of a Lifting Wing with Cut-In Sinusoidal Trailing Edges. AIAA Journal, 2017, 55, 1590-1601.	1.5	8
29	Effects of multiscale geometry on the large-scale coherent structures of an axisymmetric turbulent jet. Journal of Visualization, 2018, 21, 525-532.	1.1	8
30	Importance of small-scale anisotropy in the turbulent/nonturbulent interface region of turbulent free shear flows. Physical Review Fluids, 2019, 4, .	1.0	8
31	The importance of non-normal contributions to velocity gradient tensor dynamics for spatially developing, inhomogeneous, turbulent flows. Journal of Turbulence, 2019, 20, 577-598.	0.5	7
32	PIV measurements of convection velocities in a turbulent mixing layer. Journal of Physics: Conference Series, 2011, 318, 052038.	0.3	6
33	Internal layers in turbulent free-shear flows. Physical Review Fluids, 2021, 6, .	1.0	6
34	Experimental measurement of wall shear stress in strongly disrupted flows. Journal of Turbulence, 2017, 18, 271-290.	0.5	5
35	Near-field coherent structures in circular and fractal orifice jets. Physical Review Fluids, 2021, 6, .	1.0	5
36	Simultaneous Krypton PLIF, LII and PIV Measurements in a Sooting Jet Flame. , 2013, , .		4

#	Article	IF	Citations
37	Flow characteristics and scaling past highly porous wall-mounted fences. Physics of Fluids, 2017, 29, .	1.6	4
38	Near and Far-Field Analysis of an Axisymmetric Fractal-Forced Turbulent Jet. Springer Proceedings in Physics, 2017, , 211-217.	0.1	4
39	Passive scalar dispersion in the near wake of a multi-scale array of rectangular cylinders. Journal of Fluid Mechanics, 2019, 864, 181-220.	1.4	3
40	Influence of strong perturbations on wall-bounded flows. Physical Review Fluids, 2018, 3, .	1.0	3
41	The Classification and Composition of Fine Scale Eddies in a Turbulent Jet. , 2009, , .		2
42	Energy exchanges in the flow past a cylinder with a leeward control rod. Journal of Fluid Mechanics, 2022, 941, .	1.4	2
43	Experimental investigation of the wake of a lifting wing with cut-in sinusoidal trailing edges. , 2016, , .		1
44	Aeroacoustic Characterization of Single- and Multiscale Porous Fences. AIAA Journal, 2018, 56, 264-278.	1.5	1
45	Downstream Evolution of Perturbations in a Zero Pressure Gradient Turbulent Boundary Layer. Springer Proceedings in Physics, 2016, , 133-137.	0.1	1
46	Turbulent/Turbulent Entrainment. Springer Proceedings in Physics, 2021, , 13-19.	0.1	1
47	Concurrent Scale Interactions in the Far-Field of a Turbulent Mixing Layer. Springer Proceedings in Physics, 2016, , 55-58.	0.1	0
48	Inter-scale Energy Transfer in a Multi-scale Flow. Springer Proceedings in Physics, 2019, , 3-8.	0.1	0