R Ã–rlÃ¼

List of Publications by Year
in descending order

141 papers	4,081 citations	136950 32 h-index	123424 61 g-index
152 all docs	152 docs citations	152 times ranked	1718 citing authors

#	Article	IF	Citations
1	Assessment of direct numerical simulation data of turbulent boundary layers. Journal of Fluid Mechanics, 2010, 659, 116-126.	3.4	690
2	Turbulent boundary layers up to Reî¸=2500 studied through simulation and experiment. Physics of Fluids, 2009, 21, .	4.0	217
3	Turbulent boundary layers at moderate Reynolds numbers: inflow length and tripping effects. Journal of Fluid Mechanics, 2012, 710, 5-34.	3.4	210
4	Simulation and validation of a spatially evolving turbulent boundary layer up to. International Journal of Heat and Fluid Flow, 2014, 47, 57-69.	2.4	148
5	A new scaling for the streamwise turbulence intensity in wall-bounded turbulent flows and what it tells us about the â€œouterâ€•peak. Physics of Fluids, 2011, 23, .	4.0	111
6	Quantifying the interaction between large and small scales in wall-bounded turbulent flows: A note of caution. Physics of Fluids, 2010, 22, .	4.0	110
7	History effects and near equilibrium in adverse-pressure-gradient turbulent boundary layers. Journal of Fluid Mechanics, 2017, 820, 667-692.	3.4	105
8	On the fluctuating wall-shear stress in zero pressure-gradient turbulent boundary layer flows. Physics of Fluids, 2011, 23, .	4.0	101
9	Rare backflow and extreme wall-normal velocity fluctuations in near-wall turbulence. Physics of Fluids, 2012, 24, .	4.0	89
10	Effect of uniform blowing/suction in a turbulent boundary layer at moderate Reynolds number. International Journal of Heat and Fluid Flow, 2015, 55, 132-142.	2.4	89
11	On near wall measurements of wall bounded flowsâ€”The necessity of an accurate determination of the wall position. Progress in Aerospace Sciences, 2010, 46, 353-387.	12.1	85
12	Turbulent pipe flow downstream a 90Â° pipe bend with and without superimposed swirl. International Journal of Heat and Fluid Flow, 2013, 41, 103-111.	2.4	72
13	Obtaining accurate mean velocity measurements in high Reynolds number turbulent boundary layers using Pitot tubes. Journal of Fluid Mechanics, 2013, 715, 642-670.	3.4	71
14	On determining characteristic length scales in pressure-gradient turbulent boundary layers. Physics of Fluids, 2016, 28, .	4.0	71
15	Revival of Classical Vortex Generators Now for Transition Delay. Physical Review Letters, 2012, 109, 074501.	7.8	69
16	Turbulent Flows in Curved Pipes: Recent Advances in Experiments and Simulations. Applied Mechanics Reviews, 2016, 68, .	10.1	65
17	The diagnostic plot â€” a litmus test for wall bounded turbulence data. European Journal of Mechanics, B/Fluids, 2010, 29, 403-406.	2.5	64
18	Hairpin vortices in turbulent boundary layers. Physics of Fluids, 2015, 27, .	4.0	64

#	Article	IF	Citations
19	On the near-wall vortical structures at moderate Reynolds numbers. European Journal of Mechanics, B/Fluids, 2014, 48, 75-93.	2.5	62
20	A new formulation for the streamwise turbulence intensity distribution in wall-bounded turbulent flows. European Journal of Mechanics, B/Fluids, 2012, 36, 167-175.	2.5	58
21	On spatial resolution issues related to time-averaged quantities using hot-wire anemometry. Experiments in Fluids, 2010, 49, 101-110.	2.4	51
22	Scaling of streamwise boundary layer streaks and their ability to reduce skin-friction drag. Journal of Fluid Mechanics, 2013, 733, 1-32.	3.4	50
23	Adverse-Pressure-Gradient Effects on Turbulent Boundary Layers: Statistics and Flow-Field Organization. Flow, Turbulence and Combustion, 2017, 99, 589-612.	2.6	48
24	A method to estimate turbulence intensity and transverse Taylor microscale in turbulent flows from spatially averaged hot-wire data. Experiments in Fluids, 2011, 51, 693-700.	2.4	47
25	Reynolds stress scaling in pipe flow turbulenceâ€"first results from CICLoPE. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160187.	3.4	47
26	The viscous sublayer revisitedâ€“exploiting self-similarity to determine the wall position and friction velocity. Experiments in Fluids, 2011, 51, 271-280.	2.4	45
27	Comparison of experiments and simulations for zero pressure gradient turbulent boundary layers at moderate Reynolds numbers. Experiments in Fluids, 2013, 54, 1.	2.4	44
28	On the identification of well-behaved turbulentÂboundaryÂlayers. Journal of Fluid Mechanics, 2017, 822, 109-138.	3.4	43
29	Quantification of amplitude modulation in wall-bounded turbulence. Fluid Dynamics Research, 2019, 51, 011408.	1.3	40
30	The three-dimensional structure of swirl-switching in bent pipe flow. Journal of Fluid Mechanics, 2018, 835, 86-101.	3.4	38
31	An Experimental Study of the Near-Field Mixing Characteristics of a Swirling Jet. Flow, Turbulence and Combustion, 2008, 80, 323-350.	2.6	36
32	POD analysis of the turbulent flow downstream a mild and sharp bend. Experiments in Fluids, 2015, 56, 1.	2.4	36
33	Direct numerical simulation of a turbulent 90Â° bend pipe flow. International Journal of Heat and Fluid Flow, 2018, 73, 199-208.	2.4	33
34	Characterisation of backflow events over a wing section. Journal of Turbulence, 2017, 18, 170-185.	1.4	32
35	Revisiting History Effects in Adverse-Pressure-Gradient Turbulent Boundary Layers. Flow, Turbulence and Combustion, 2017, 99, 565-587.	2.6	32
36	Passive boundary layer control of oblique disturbances by finite-amplitude streaks. Journal of Fluid Mechanics, 2014, 749, 1-36.	3.4	29

#	Article	IF	Citations
37	Modal instability of the flow in a toroidal pipe. Journal of Fluid Mechanics, 2016, 792, 894-909.	3.4	28
38	Comment on the scaling of the near-wall streamwise variance peak in turbulent pipe flows. Experiments in Fluids, 2013, 54, 1.	2.4	26
39	Combined hot-wire and PIV measurements of a swirling turbulent flow at the exit of a 90Â° pipe bend. Journal of Visualization, 2016, 19, 261-273.	1.8	26
40	Simulations of turbulent asymptotic suction boundary layers. Journal of Turbulence, 2016, 17, 157-180.	1.4	26
41	Dean vortices in turbulent flows: rocking or rolling?. Journal of Visualization, 2012, 15, 37-38.	1.8	25
42	Uncertainty analysis of the von KÃ¡rmÃ¡n constant. Experiments in Fluids, 2013, 54, 1.	2.4	25
43	Plasma Streamwise Vortex Generators for Flow Separation Control on Trucks. Flow, Turbulence and Combustion, 2018, 100, 1101-1109.	2.6	22
44	Reynolds number dependence of large-scale friction control in turbulent channel flow. Physical Review Fluids, 2016, 1, .	2.5	22
45	Consecutive turbulence transition delay with reinforced passive control. Physical Review E, 2014, 89, 061001.	2.1	21
46	On Large-Scale Friction Control in Turbulent Wall Flow in Low Reynolds Number Channels. Flow, Turbulence and Combustion, 2016, 97, 811-827.	2.6	21
47	Experimental investigation of the heat transfer from the helical coil heat exchanger using bubble injection for cold thermal energy storage system. Applied Thermal Engineering, 2022, 200, 117559.	6.0	21
48	Instantaneous wall-shear-stress measurements: advances and application to near-wall extreme events. Measurement Science and Technology, 2020, 31, 112001.	2.6	21
49	Separation control by means of plasma actuation on a half cylinder approached by a turbulent boundary layer. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 145, 318-326.	3.9	20
50	Characterisation of the steady, laminar incompressible flow in toroidal pipes covering the entire curvature range. International Journal of Heat and Fluid Flow, 2017, 66, 95-107.	2.4	20
51	Investigation of the small-scale statistics of turbulence in the Modane S1MA wind tunnel. CEAS Aeronautical Journal, 2018, 9, 269-281.	1.7	20
52	Vortical patterns in turbulent flow downstream a 90Â° curved pipe at high Womersley numbers. International Journal of Heat and Fluid Flow, 2013, 44, 692-699.	2.4	19
53	Flow separation control behind a cylindrical bump using dielectric-barrier-discharge vortex generator plasma actuators. Journal of Fluid Mechanics, 2018, 835, 852-879.	3.4	19
54	Experimental and theoretical study of swept-wing boundary-layer instabilities. Unsteady crossflow instability. Physics of Fluids, 2019, 31, .	4.0	19

#	Article	IF	Citations
55	Characterization of very-large-scale motions in high-Re pipe flows. Experimental Thermal and Fluid Science, 2019, 104, 1-8.	2.7	19
56	High-order generalisation of the diagnostic scaling for turbulent boundary layers. Journal of Turbulence, 2016, 17, 664-677.	1.4	18
57	Experimental realisation of near-equilibrium adverse-pressure-gradient turbulent boundary layers. Experimental Thermal and Fluid Science, 2020, 112, 109975.	2.7	18
58	Time-resolved measurements with a vortex flowmeter in a pulsating turbulent flow using wavelet analysis. Measurement Science and Technology, 2010, 21, 123001.	2.6	17
59	Correcting hot-wire spatial resolution effects in third- and fourth-order velocity moments in wall-bounded turbulence. Experiments in Fluids, 2013, 54, 1.	2.4	17
60	Separating adverse-pressure-gradient and Reynolds-number effects in turbulent boundary layers. Physical Review Fluids, 2020, 5, .	2.5	17
61	Drag reduction in spatially developing turbulent boundary layers by spatially intermittent blowing at constant mass-flux. Journal of Turbulence, 2016, 17, 913-929.	1.4	16
62	A flow facility for the characterization of pulsatile flows. Flow Measurement and Instrumentation, 2012, 26, 10-17.	2.0	15
63	Towards a theoretical model of heat transfer for hot-wire anemometry close to solid walls. International Journal of Heat and Fluid Flow, 2017, 68, 248-256.	2.4	15
64	Simulation of a Large-Eddy-Break-up Device (LEBU) in a Moderate Reynolds Number Turbulent Boundary Layer. Flow, Turbulence and Combustion, 2017, 98, 445-460.	2.6	15
65	Backflow events under the effect of secondary flow of Prandtl's first kind. Physical Review Fluids, 2020, 5, .	2.5	14
66	Large-Eddy BreakUp Devices â€“ a 40 Years Perspective from a Stockholm Horizon. Flow, Turbulence and Combustion, 2018, 100, 877-888.	2.6	13
67	Flow separation control by dielectric barrier discharge plasma actuation via pulsed momentum injection. AIP Advances, 2018, 8, .	1.3	13
68	Experimental investigation on the steady and unsteady disturbances in a flat plate boundary layer. Physics of Fluids, 2014, 26, .	4.0	12
69	Experimental and theoretical study of swept-wing boundary-layer instabilities. Three-dimensional Tollmien-Schlichting instability. Physics of Fluids, 2019, 31, 114104.	4.0	12
70	Modal decomposition of flow fields and convective heat transfer maps: An application to wall-proximity square ribs. Experimental Thermal and Fluid Science, 2019, 102, 517-527.	2.7	12
71	Turbulent asymptotic suction boundary layers studied by simulation. Journal of Physics: Conference Series, 2011, 318, 022020.	0.4	11
72	On the scaling of streamwise streaks and their efficiency to attenuate Tollmienâ€“Schlichting waves. Experiments in Fluids, 2015, 56, 1.	2.4	11

#	Article	IF	Citations
73	Turbulent boundary layers over flat plates and rotating disksâ€"The legacy of von KÃ¡rmÃ¡n: A Stockholm perspective. European Journal of Mechanics, B/Fluids, 2013, 40, 17-29.	2.5	10
74	A note on the effect of the separation wall in the initial mixing of coaxial jets. Experiments in Fluids, 2013, 54, 1.	2.4	9
75	Critical Point for Bifurcation Cascades and Featureless Turbulence. Physical Review Letters, 2020, 124, 014501.	7.8	9
76	Thermal anemometry. , 2017, , 257-304.		9
77	Experimental investigation on the effect of pulsations on exhaust manifold-related flows aiming at improved efficiency. , 2012, , 377-387.		8
78	Flow organization in the wake of a rib in a turbulent boundary layer with pressure gradient. Experimental Thermal and Fluid Science, 2019, 108, 115-124.	2.7	8
79	Comment on â€œEvolution of wall shear stress with Reynolds number in fully developed turbulent channel flow experimentsâ€• Physical Review Fluids, 2020, 5, .	2.5	8
80	Design and Tests of Wind-Tunnel Sidewalls for Receptivity Experiments on a Swept Wing. Applied Mechanics and Materials, 0, 390, 96-102.	0.2	7
81	The influence of temperature fluctuations on hot-wire measurements in wall-bounded turbulence. Experiments in Fluids, 2014, 55, 1.	2.4	7
82	A description of turbulence intensity profiles for boundary layers with adverse pressure gradient. European Journal of Mechanics, B/Fluids, 2020, 84, 470-477.	2.5	7
83	Efficiency assessment of a single surface dielectric barrier discharge plasma actuator with an optimized Suzenâ€"Huang model. Physics of Fluids, 2022, 34, 047110.	4.0	7
84	Large-eddy simulations of adverse pressure gradient turbulent boundary layers. Journal of Physics: Conference Series, 2016, 708, 012012.	0.4	6
85	Influence of a Large-Eddy-Breakup-Device on the Turbulent Interface of Boundary Layers. Flow, Turbulence and Combustion, 2017, 99, 823-835.	2.6	6
86	Techniques for Turbulence Tripping of Boundary Layers in RANS Simulations. Flow, Turbulence and Combustion, 2022, 108, 661-682.	2.6	6
87	Ridge-type roughness: from turbulent channel flow to internal combustion engine. Experiments in Fluids, 2022, 63, 1.	2.4	6
88	Hot-Wire Calibration at Low Velocities: Revisiting the Vortex Shedding Method. Advances in Mechanical Engineering, 2013, 5, 241726.	1.6	5
89	Pulsatile Turbulent Flow in Straight and Curved Pipes â€“ Interpretation and Decomposition of Hot-Wire Signals. Flow, Turbulence and Combustion, 2015, 94, 305-321.	2.6	5
90	On determining characteristic length scales in pressure gradient turbulent boundary layers. Journal of Physics: Conference Series, 2016, 708, 012014.	0.4	5

#	Article	IF	Citations
91	Flow topology of rare back flow events and critical points in turbulent channels and toroidal pipes. Journal of Physics: Conference Series, 2018, 1001, 012002.	0.4	5
92	The skin-friction coefficient of a turbulent boundary layer modified by a large-eddy break-up device. Physics of Fluids, 2021, 33, .	4.0	5
93	Pulsatile turbulent flow through pipe bends at high Dean and Womersley numbers. Journal of Physics: Conference Series, 2011, 318, 092023.	0.4	4
94	Inflow length and tripping effects in turbulent boundary layers. Journal of Physics: Conference Series, 2011, 318, 022018.	0.4	4
95	The life of a vortex in an axisymmetric jet. Journal of Visualization, 2011, 14, 5-6.	1.8	4
96	Characteristics of 3D instability of a 35-degree swept wing to CF and TS modes. Experiment and theory. AIP Conference Proceedings, 2016, , .	0.4	4
97	Near wall coherence in wall-bounded flows and implications for flow control. International Journal of Heat and Fluid Flow, 2020, 86, 108683.	2.4	4
98	Large-scale and small-scale contribution to the skin friction reduction in a modified turbulent boundary layer by a large-eddy break-up device. Physical Review Fluids, 2022, 7, .	2.5	4
99	RANS Modelling of a NACA4412 Wake Using Wind Tunnel Measurements. Fluids, 2022, 7, 153.	1.7	4
100	Mastering nonlinear flow dynamics for laminar flow control. Physical Review E, 2016, 94, 021103.	2.1	3
101	Spanwise boundary layer modulations using finite discrete suction for transition delay. Experiments in Fluids, 2017, 58, 1.	2.4	3
102	Generation of unsteady CF-instability modes by vibrational and vibration-vortex localized receptivity mechanisms. AIP Conference Proceedings, 2018, , .	0.4	3
103	Aerodynamic Free-Flight Conditions in Wind Tunnel Modelling through Reduced-Order Wall Inserts. Fluids, 2021, 6, 265.	1.7	3
104	Spatial resolution issues in rough wall turbulence. Experiments in Fluids, 2022, 63, 1.	2.4	3
105	A method to correct third and fourth order moments in turbulent flows. Journal of Physics: Conference Series, 2011, 318, 042023.	0.4	2
106	Negative streamwise velocities and other rare events near the wall in turbulent flows. Journal of Physics: Conference Series, 2011, 318, 022013.	0.4	2
107	A new formulation for the streamwise turbulence intensity distribution. Journal of Physics: Conference Series, 2011, 318, 022002.	0.4	2
108	Experimental analysis of turbocharger interaction with a pulsatile flow through time-resolved flow measurements upstream and downstream of the turbine. , 2012, , 405-415.		2

#	Article	IF	Citations
109	Turbulent Boundary-Layer Flow: Comparing Experiments with DNS. Springer Proceedings in Physics, 2012, , 213-216.	0.2	2
110	Turbulent Boundary Layer Upstream, Over and Downstream a Cylindrical 2D Bump. Springer Proceedings in Physics, 2016, , 279-283.	0.2	2
111	Turbulent Pipe Flow Near-Wall Statistics. Springer Proceedings in Physics, 2017, , 89-94.	0.2	2
112	The Diagnostic Plotâ€"A Tutorial withÂaÂTen Year Perspective. Springer Proceedings in Physics, 2021, , 125-135.	0.2	2
113	Turbulence Enhancement in Coaxial Jet Flows by Means of Vortex Shedding. Springer Proceedings in Physics, 2009, , 235-238.	0.2	1
114	Advanced Fluid Research On Drag reduction In Turbulence Experiments â€"AFRODITEâ€". Journal of Physics: Conference Series, 2011, 318, 032007.	0.4	1
115	Quantitative study of localized mechanisms of excitation of cross-flow instability modes in a swept-wing boundary layer. Journal of Physics: Conference Series, 2018, 1129, 012008.	0.4	1
116	Excitation of 3D TS-waves in a swept-wing boundary layer by surface vibrations and freestream vortices. AIP Conference Proceedings, 2018, , .	0.4	1
117	Experimental evaluation of the mean momentum and kinetic energy balance equations in turbulent pipe flows at high Reynolds number. Journal of Turbulence, 2019, 20, 285-299.	1.4	1
118	Transition to Turbulence Delay Using Miniature Vortex Generators â€" AFRODITE â€". Springer Proceedings in Physics, 2014, , 71-74.	0.2	1
119	Revisiting the Near-Wall Scaling of the Streamwise Variance in Turbulent Pipe Flows. Springer Proceedings in Physics, 2014, , 113-119.	0.2	1
120	Binormal cooling errors in single hot-wire measurements. Journal of Theoretical and Applied Mechanics, 0, , 305.	0.5	1
121	Unsteady Compressible Flow Calculations with Least-Square Mesh-less Method. Journal of Applied Fluid Mechanics, 2016, 9, 233-241.	0.2	1
122	Inter-scale interaction in pipe flows at high Reynolds numbers. Experimental Thermal and Fluid Science, 2022, 131, 110529.	2.7	1
123	Vibration suppression of a flexible shaft system using indirect adaptive control. , 2013, , .		0
124	The Characteristics of Turbulence in Curved Pipes under Highly Pulsatile Flow Conditions. Springer Proceedings in Physics, 2014, , 183-187.	0.2	0
125	Turbulent Boundary Layers in Long Computational Domains. Springer Proceedings in Physics, 2014, , 91-96.	0.2	0
126	Effects of Uniform Blowing or Suction on the Amplitude Modulation in Spatially Developing Turbulent Boundary Layers. , 2016, , 185-194.		0

#	Article	IF	Citations
127	Flow visualization of an oblique impinging jet: vortices like it downhill, not uphill. Journal of Visualization, 2016, 19, 7-9.	1.8	0
128	Temperature Effects in Hot-Wire Measurements on Higher-Order Moments in Wall Turbulence. Springer Proceedings in Physics, 2016, , 185-189.	0.2	0
129	Receptivity coefficients of vortex-vibrational type at excitation of 3D Tollmien-Schlichting waves in a boundary layer on a swept wing. AIP Conference Proceedings, 2019, , .	0.4	0
130	On Stability and Transition in Bent Pipes. ERCOFTAC Series, 2019, , 531-536.	0.1	0
131	Passive Scalar Flux Measurements in the Near-Field Region of a Swirling Jet. Heat Transfer Research, 2008, 39, 597-607.	1.6	0
132	The Effect of Oblique Waves on Jet Turbulence. Springer Proceedings in Physics, 2009, , 231-234.	0.2	0
133	The diagnostic plot - a new way to appraise turbulent boundary-layer data. Springer Proceedings in Physics, 2009, , 609-612.	0.2	0
134	Turbulent Boundary Layers in Long Computational Domains. ERCOFTAC Series, 2015, , 267-274.	0.1	0
135	Aeroelastic Analysis of a Typical Section using Euler and Navier-Stokes Mesh-less Method. Scientia Iranica, 2016, 23, 194-205.	0.4	0
136	Scaling of Adverse-Pressure-Gradient Turbulent Boundary Layers in Near-Equilibrium Conditions. Springer Proceedings in Physics, 2017, , 73-78.	0.2	0
137	Transitional and Turbulent Bent Pipes. Springer Proceedings in Physics, 2017, , 81-87.	0.2	0
138	Identifying Well-Behaved Turbulent Boundary Layers. Springer Proceedings in Physics, 2017, , 67-72.	0.2	0
139	Assessment of Wall Vibrations in the Long Pipe Facility at CICLoPE. Springer Proceedings in Physics, 2019, , 203-208.	0.2	0
140	Large-Scale Energy in Turbulent Boundary Layers: Reynolds-Number and Pressure-Gradient Effects. Springer Proceedings in Physics, 2019, , 69-74.	0.2	0
141	10.1063/5.0087395.1. , 2022, , .		0