Alexander J Smits

List of Publications by Year
in descending order

270 papers	14,546 citations	15466 65 h-index	23472 111 g-index
276 all docs	276 docs citations	276 times ranked	5122 citing authors

#	Article	IF	Citations
1	Highâ€“Reynolds Number Wall Turbulence. Annual Review of Fluid Mechanics, 2011, 43, 353-375.	10.8	690
2	Mean-flow scaling of turbulent pipe flow. Journal of Fluid Mechanics, 1998, 373, 33-79.	1.4	629
3	Wall-bounded turbulent flows at high Reynolds numbers: Recent advances and key issues. Physics of Fluids, 2010, 22, .	1.6	577
4	On the logarithmic region in wall turbulence. Journal of Fluid Mechanics, 2013, 716, .	1.4	486
5	ENERGY HARVESTING EEL. Journal of Fluids and Structures, 2001, 15, 629-640.	1.5	479
6	Further observations on the mean velocity distribution in fully developed pipe flow. Journal of Fluid Mechanics, 2004, 501, 135-147.	1.4	257
7	Turbulent Pipe Flow at Extreme Reynolds Numbers. Physical Review Letters, 2012, 108, 094501.	2.9	250
8	The Physics of Supersonic Turbulent Boundary Layers. Annual Review of Fluid Mechanics, 1994, 26, 287-319.	10.8	218
9	Scaling laws for the thrust production of flexible pitching panels. Journal of Fluid Mechanics, 2013, 732, 29-46.	1.4	208
10	Scaling the propulsive performance of heaving flexible panels. Journal of Fluid Mechanics, 2014, 738, 250-267.	1.4	193
11	Scaling of the streamwise velocity component in turbulent pipe flow. Journal of Fluid Mechanics, 2004, 508, 99-131.	1.4	190
12	The wake structure and thrust performance of a rigid low-aspect-ratio pitching panel. Journal of Fluid Mechanics, 2008, 603, 331-365.	1.4	189
13	Experimental study of three shock wave/turbulent boundary layer interactions. Journal of Fluid Mechanics, 1987, 182, 291.	1.4	182
14	Roughness effects in turbulent pipe flow. Journal of Fluid Mechanics, 2006, 564, 267.	1.4	178
15	On the evolution of the wake structure produced by a low-aspect-ratio pitching panel. Journal of Fluid Mechanics, 2006, 546, 433.	1.4	173
16	The Response of Turbulent Boundary Layers to Sudden Perturbations. Annual Review of Fluid Mechanics, 1985, 17, 321-358.	10.8	170
17	Horseshoe vortex systems resulting from the interaction between a laminar boundary layer and a transverse jet. Physics of Fluids, 1995, 7, 153-158.	1.6	164
18	The effect of short regions of high surface curvature on turbulent boundary layers. Journal of Fluid Mechanics, 1979, 94, 209-242.	1.4	160

#	Article	IF	Citations
19	Scaling the propulsive performance of heaving and pitching foils. Journal of Fluid Mechanics, 2017, 822, 386-397.	1.4	153
20	Undulatory and oscillatory swimming. Journal of Fluid Mechanics, 2019, 874, .	1.4	150
21	A new friction factor relationship for fully developed pipe flow. Journal of Fluid Mechanics, 2005, 538, 429.	1.4	146
22	Friction factors for smooth pipe flow. Journal of Fluid Mechanics, 2004, 511, 41-44.	1.4	145
23	Propulsive performance of unsteady tandem hydrofoils in an in-line configuration. Physics of Fluids, 2014, 26, .	1.6	137
24	Constant temperature hot-wire anemometer practice in supersonic flows. Experiments in Fluids, 1983, 1, 83-92.	1.1	130
25	Turbulence measurements using a nanoscale thermal anemometry probe. Journal of Fluid Mechanics, 2010, 663, 160-179.	1.4	129
26	Maximizing the efficiency of a flexible propulsor using experimental optimization. Journal of Fluid Mechanics, 2015, 767, 430-448.	1.4	127
27	Thrust production and wake structure of a batoid-inspired oscillating fin. Journal of Fluid Mechanics, 2006, 562, 415.	1.4	126
28	Turbulent drag reduction over air- and liquid- impregnated surfaces. Physics of Fluids, 2016, 28, .	1.6	125
29	The unsteady three-dimensional wake produced by a trapezoidal pitching panel. Journal of Fluid Mechanics, 2011, 685, 117-145.	1.4	123
30	Unsteady propulsion near a solid boundary. Journal of Fluid Mechanics, 2014, 742, 152-170.	1.4	119
31	Log laws or power laws: The scaling in the overlap region. Physics of Fluids, 1997, 9, 2094-2100.	1.6	117
32	Scaling of the Mean Velocity Profile for Turbulent Pipe Flow. Physical Review Letters, 1997, 78, 239-242.	2.9	111
33	Logarithmic scaling of turbulence in smooth- and rough-wall pipe flow. Journal of Fluid Mechanics, 2013, 728, 376-395.	1.4	108
34	Dynamic stall in vertical axis wind turbines: Comparing experiments and computations. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 163-171.	1.7	106
35	Turbulence structure in a shock wave/turbulent boundary-layer interaction. AIAA Journal, 1989, 27, 862-869.	1.5	103
36	Flexible propulsors in ground effect. Bioinspiration and Biomimetics, 2014, 9, 036008.	1.5	101

#	Article	IF	Citations
37	Low-Reynolds-Number Turbulent Boundary Layers in Zero and Favorable Pressure Gradients. Journal of Ship Research, 1983, 27, 147-157.	0.5	99
38	Propulsive performance of unsteady tandem hydrofoils in a side-by-side configuration. Physics of Fluids, 2014, 26, .	1.6	97
39	Spatial resolution correction for wall-bounded turbulence measurements. Journal of Fluid Mechanics, 2011, 676, 41-53.	1.4	95
40	Spectral scaling in boundary layers and pipes at very high Reynolds numbers. Journal of Fluid Mechanics, 2015, 771, 303-326.	1.4	95
41	Turbulent boundary layer statistics at very high Reynolds number. Journal of Fluid Mechanics, 2015, 779, 371-389.	1.4	94
42	Organized structures in a compressible, turbulent boundary layer. Journal of Fluid Mechanics, 1987, 182, 85.	1.4	90
43	Aero-Optic Distortion in Transonic and Hypersonic Turbulent Boundary Layers. AIAA Journal, 2009, 47, 2158-2168.	1.5	88
44	Turbulence spectra in smooth- and rough-wall pipe flow at extreme Reynolds numbers. Journal of Fluid Mechanics, 2013, 731, 46-63.	1.4	86
45	Efficient cruising for swimming and flying animals is dictated by fluid drag. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8116-8118.	3.3	86
46	Estimating the value of von KÃ¡rmÃ¡nâ€™s constant in turbulent pipe flow. Journal of Fluid Mechanics, 2014, 749, 79-98.	1.4	84
47	Fully resolved measurements of turbulent boundary layer flows up to. Journal of Fluid Mechanics, 2018, 851, 391-415.	1.4	84
48	On the structure of high-Reynolds-number supersonic turbulent boundary layers. Journal of Fluid Mechanics, 1991, 222, 293.	1.4	83
49	Quantitative visualization of compressible turbulent shear flows using condensate-enhanced Rayleigh scattering. Experiments in Fluids, 2004, 37, 438-454.	1.1	83
50	Turbulent flow in smooth and rough pipes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 699-714.	1.6	83
51	Flow in a commercial steel pipe. Journal of Fluid Mechanics, 2008, 595, 323-339.	1.4	83
52	Turbulence measurements in pipe flow using a nano-scale thermal anemometry probe. Experiments in Fluids, 2011, 51, 1521-1527.	1.1	82
53	A comparison of the turbulence structure of subsonic and supersonic boundary layers. Physics of Fluids A, Fluid Dynamics, 1989, 1, 1865-1875.	1.6	81
54	New Experimental Data of STBLI at DNS/LES Accessible Reynolds Numbers. , 2005, , .		81

#	Article	IF	Citations
55	Vortex suppression and drag reduction in the wake of counter-rotating cylinders. Journal of Fluid Mechanics, 2011, 679, 343-382.	1.4	81
56	The intermediate wake of a body of revolution at high Reynolds numbers. Journal of Fluid Mechanics, 2010, 659, 516-539.	1.4	78
57	Substantial drag reduction in turbulent flow using liquid-infused surfaces. Journal of Fluid Mechanics, 2017, 827, 448-456.	1.4	78
58	Temperature corrections for constant temperature and constant current hot-wire anemometers. Measurement Science and Technology, 2010, 21, 105404.	1.4	76
59	A turbulent flow over a curved hill Part 1. Growth of an internal boundary layer. Journal of Fluid Mechanics, 1987, 182, 47.	1.4	74
60	Scaling of near-wall turbulence in pipe flow. Journal of Fluid Mechanics, 2010, 649, 103-113.	1.4	74
61	On the relationship between efficiency and wake structure of a batoid-inspired oscillating fin. Journal of Fluid Mechanics, 2012, 691, 245-266.	1.4	74
62	Visualization of the structure of supersonic turbulent boundary layers. Experiments in Fluids, 1995, 18, 288-302.	1.1	71
63	Obtaining accurate mean velocity measurements in high Reynolds number turbulent boundary layers using Pitot tubes. Journal of Fluid Mechanics, 2013, 715, 642-670.	1.4	71
64	Self-similarity of the large-scale motions in turbulent pipe flow. Journal of Fluid Mechanics, 2016, 792, .	1.4	71
65	Experimental Study of a Mach 3 Compression Ramp Interaction at Re{theta} = 2400. AIAA Journal, 2009, 47, 373-385.	1.5	67
66	Experimental investigation of the structure of large- and very-large-scale motions in turbulent pipe flow. Journal of Fluid Mechanics, 2010, 651, 339-356.	1.4	67
67	Flow speed has little impact on propulsive characteristics of oscillating foils. Physical Review Fluids, 2018, 3, .	1.0	67
68	A supersonic turbulent boundary layer in an adverse pressure gradient. Journal of Fluid Mechanics, 1990, 211, 285-307.	1.4	65
69	The structure of a supersonic turbulent boundary layer subjected to concave surface curvature. Journal of Fluid Mechanics, 1994, 259, 1-24.	1.4	65
70	Wake structures behind a swimming robotic lamprey with a passively flexible tail. Journal of Experimental Biology, 2012, 215, 416-425.	0.8	65
71	The response of a compressible turbulent boundary layer to short regions of concave surface curvature. Journal of Fluid Mechanics, 1987, 175, 343.	1.4	64
72	Visualizing the very-large-scale motions in turbulent pipe flow. Physics of Fluids, 2011, 23, .	1.6	64

#	Article	IF	Citations
73	Azimuthal structure of turbulence in high Reynolds number pipe flow. Journal of Fluid Mechanics, 2008, 615, 121-138.	1.4	63
74	Hydrodynamic wake resonance as an underlying principle of efficient unsteady propulsion. Journal of Fluid Mechanics, 2012, 708, 329-348.	1.4	63
75	Dynamic stall in vertical axis wind turbines: scaling and topological considerations. Journal of Fluid Mechanics, 2018, 841, 746-766.	1.4	63
76	Bioinspired Propulsion Mechanisms Based on Manta Ray Locomotion. Marine Technology Society Journal, 2011, 45, 110-118.	0.3	61
77	Flow Visualization. , 2000, , .		61
78	Turbulence Measurements in a Compressible Reattaching Shear Layer. AIAA Journal, 1984, 22, 889-895.	1.5	59
79	Numerical and Experimental Investigation of Double-Cone Shock Interactions. AIAA Journal, 2000, 38, 2268-2276.	1.5	59
80	Effects of three-dimensionality on thrust production by a pitching panel. Journal of Fluid Mechanics, 2008, 615, 211-220.	1.4	59
81	Turbulent pipe flow downstream of a bend. Journal of Fluid Mechanics, 2013, 735, .	1.4	59
82	Role of body stiffness in undulatory swimming: Insights from robotic and computational models. Physical Review Fluids, 2016, 1, .	1.0	59
83	An energy-efficient pathway to turbulent drag reduction. Nature Communications, 2021, 12, 5805.	5.8	59
84	Compressible boundary-layer density cross sections by UV Rayleigh scattering. Optics Letters, 1989, 14, 916.	1.7	58
85	The rapid expansion of a turbulent boundary layer in a supersonic flow. Theoretical and Computational Fluid Dynamics, 1991, 2, 319-328.	0.9	58
86	The response of a turbulent boundary layer to lateral divergence. Journal of Fluid Mechanics, 1979, 94, 243-268.	1.4	56
87	Using hyperbolic Lagrangian coherent structures to investigate vortices in bioinspired fluid flows. Chaos, 2010, 20, 017510.	1.0	56
88	The effects of certain low frequency phenomena on the calibration of hot wires. Journal of Fluid Mechanics, 1979, 90, 415-431.	1.4	55
89	Static pressure correction in high Reynolds number fully developed turbulent pipe flow. Measurement Science and Technology, 2002, 13, 1608-1614.	1.4	55
90	Flowfield measurements in the wake of a robotic lamprey. Experiments in Fluids, 2007, 43, 683-690.	1.1	55

#	Article	IF	Citations
91	Wall-bounded turbulence. Physics Today, 2013, 66, 25-30.	0.3	54
92	Pitot probe corrections in fully developed turbulent pipe flow. Measurement Science and Technology, 2003, 14, 1449-1458.	1.4	53
93	Particle response analysis for particle image velocimetry in supersonic flows. Physics of Fluids, 2015, 27, .	1.6	51
94	Scaling of a small scale burner fire whirl. Combustion and Flame, 2016, 163, 202-208.	2.8	51
95	Impact of trailing edge shape on the wake and propulsive performance of pitching panels. Physical Review Fluids, 2017, 2, .	1.0	49
96	Experiments on the structure and scaling of hypersonic turbulent boundary layers. Journal of Fluid Mechanics, 2018, 834, 237-270.	1.4	48
97	Effect of periodic blowing on attached and separated supersonic turbulent boundary layers. AIAA Journal, 1991, 29, 1651-1658.	1.5	47
98	Shock unsteadiness in a reattaching shear layer. Journal of Fluid Mechanics, 2001, 429, 155-185.	1.4	47
99	The response to temperature fluctuations of a constant-current hot-wire anemometer. Journal of Physics E: Scientific Instruments, 1978, 11, 909-914.	0.7	46
100	Flow Visualization. , 2012, , .		46
101	Turbulent boundary layer relaxation from convex curvature. Journal of Fluid Mechanics, 1990, 211, 529-556.	1.4	45
102	Delaying transition in Taylorâ€"Couette flow with axial motion of the inner cylinder. Journal of Fluid Mechanics, 1997, 348, 141-151.	1.4	45
103	The evolution of large-scale motions in turbulent pipe flow. Journal of Fluid Mechanics, 2015, 779, 701-715.	1.4	45
104	Drag reduction on grooved cylinders in the critical Reynolds number regime. Experimental Thermal and Fluid Science, 2013, 48, 15-18.	1.5	44
105	The energetic motions in turbulent pipe flow. Physics of Fluids, 2014, 26, .	1.6	44
106	Linear instability mechanisms leading to optimally efficient locomotion with flexible propulsors. Physics of Fluids, 2014, 26, 041905.	1.6	44
107	A direct measure of the frequency response of hot-wire anemometers: temporal resolution issues in wall-bounded turbulence. Experiments in Fluids, 2015, 56, 1.	1.1	44
108	Forces and energetics of intermittent swimming. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 725-732.	1.5	44

#	Article	IF	Citations
109	Reynolds Number Scaling of the Propulsive Performance of a Pitching Airfoil. AIAA Journal, 2019, 57, 2663-2669.	1.5	43
110	Scaling of the wall-normal turbulence component in high-Reynolds-number pipe flow. Journal of Fluid Mechanics, 2007, 576, 457-473.	1.4	42
111	Experimental Investigations of Mach 3 Shock-Wave Turbulent Boundary Layer Interactions. , 2005, , .		41
112	Fabrication and Characterization of a Novel Nanoscale Thermal Anemometry Probe. Journal of Microelectromechanical Systems, 2014, 23, 899-907.	1.7	41
113	Simultaneous measurement of velocity and temperature fluctuations in the boundary layer of a supersonic flow. Experimental Thermal and Fluid Science, 1993, 7, 221-229.	1.5	40
114	Nonsinusoidal gaits for unsteady propulsion. Physical Review Fluids, 2017, 2, .	1.0	39
115	Reynolds Number Dependence of Streamwise Velocity Spectra in Turbulent Pipe Flow. Physical Review Letters, 2002, 88, 214501.	2.9	38
116	A turbulent flow over a curved hill. Part 2. Effects of streamline curvature and streamwise pressure gradient. Journal of Fluid Mechanics, 1991, 232, 377.	1.4	36
117	Supersonic Turbulent Boundary Layer Subjected to Step Changes in Wall Temperature. AIAA Journal, 1997, 35, 51-57.	1.5	35
118	Measurement of the Flow Field of Fire Whirl. Fire Technology, 2016, 52, 263-272.	1.5	33
119	Transition studies on an elliptic cone in Mach 8 flow using Filtered Rayleigh Scattering. European Journal of Mechanics, B/Fluids, 2000, 19, 695-706.	1.2	32
120	Measurement of Local Dissipation Scales in Turbulent Pipe Flow. Physical Review Letters, 2009, 103, 014502.	2.9	32
121	The Effects of Fins on the Intermediate Wake of a Submarine Model. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	0.8	32
122	A viscoelastic model of shear-induced hemolysis in laminar flow. Biorheology, 2013, 50, 45-55.	1.2	32
123	Effects of trailing edge shape on vortex formation by pitching panels of small aspect ratio. Physical Review Fluids, 2019, 4, .	1.0	32
124	Experimental evidence for Plotkin model of shock unsteadiness in separated flow. Physics of Fluids, 2005, 17, 018107.	1.6	31
125	Scaling the circulation shed by a pitching panel. Journal of Fluid Mechanics, 2011, 688, 591-601.	1.4	31
126	Hot-wire spatial resolution effects in measurements of grid-generated turbulence. Experiments in Fluids, 2012, 53, 1713-1722.	1.1	31

#	Article	IF	Citations
127	Turbulence measurements in a three-dimensional boundary layer in supersonic flow. Journal of Fluid Mechanics, 1998, 372, 1-23.	1.4	30
128	Scaling of global properties of turbulence and skin friction in pipe and channel flows. Journal of Fluid Mechanics, 2010, 652, 65-73.	1.4	30
129	The effects of inflow conditions on vertical axis wind turbine wake structure and performance. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 183, 1-18.	1.7	30
130	Wavelet Analysis of Wall-Pressure Fluctuations in a Supersonic Blunt-Fin Flow. AIAA Journal, 1997, 35, 1597-1603.	1.5	29
131	Reynolds stress scaling in the near-wall region of wall-bounded flows. Journal of Fluid Mechanics, 2021, 926, .	1.4	29
132	Turbulent Boundary Layers on Bodies of Revolution. Journal of Ship Research, 1982, 26, 135-147.	0.5	29
133	Dynamic calibration and modeling of a cold wire for temperature measurement. Measurement Science and Technology, 2013, 24, 125301.	1.4	28
134	Asymmetries in the wake of a submarine modelÂinÂpitch. Journal of Fluid Mechanics, 2015, 774, 416-442.	1.4	28
135	Effects of transverse helium injection on hypersonic boundary layers. Physics of Fluids, 2001, 13, 3025-3032.	1.6	27
136	On the universality of inertial energy in the log layer of turbulent boundary layer and pipe flows. Experiments in Fluids, 2015, 56, 1.	1.1	27
137	Swimmersâ€™ wake structures are not reliable indicators of swimming performance. Bioinspiration and Biomimetics, 2020, 15, 024001.	1.5	27
138	Errors in parallel-plate and cone-plate rheometer measurements due to sample underfill. Measurement Science and Technology, 2015, 26, 015301.	1.4	26
139	Three-dimensional structure of a low-Reynolds-number turbulent boundary layer. Journal of Fluid Mechanics, 2004, 512, .	1.4	25
140	A new criterion for end-conduction effects in hot-wire anemometry. Measurement Science and Technology, 2011, 22, 055401.	1.4	25
141	The effect of stable thermal stratification on turbulent boundary layer statistics. Journal of Fluid Mechanics, 2017, 812, 1039-1075.	1.4	25
142	Numerical simulations of the flow around a square pitching panel. Journal of Fluids and Structures, 2018, 76, 454-468.	1.5	25
143	Roughness effects in laminar channel flow. Journal of Fluid Mechanics, 2019, 876, 1129-1145.	1.4	25
144	How smooth is a dolphin? The ridged skin of odontocetes. Biology Letters, 2019, 15, 20190103.	1.0	24

#	Article	IF	Citations
145	Hot-wire Investigation of an Unseparated Shock-Wave/Turbulent Boundary-Layer Interaction. AIAA Journal, 1984, 22, 579-585.	1.5	23
146	Flow visualization of the threeâ€dimensional, timeâ€evolving structure of a turbulent boundary layer. Physics of Fluids, 1994, 6, 577-587.	1.6	23
147	Model of accommodation: Contributions of lens geometry and mechanical properties to the development of presbyopia. Journal of Cataract and Refractive Surgery, 2010, 36, 1960-1971.	0.7	23
148	Convection velocity in supersonic turbulent boundary layers. Physics of Fluids A, Fluid Dynamics, 1991, 3, 3124-3126.	1.6	22
149	A study of the effects of curvature and compression on the behavior of a supersonic turbulent boundary layer. Experiments in Fluids, 1995, 18, 363-369.	1.1	22
150	The effects of successive distortions on a turbulent boundary layer in a supersonic flow. Journal of Fluid Mechanics, 1997, 351, 253-288.	1.4	21
151	Evaluation of a universal transitional resistance diagram for pipes with honed surfaces. Physics of Fluids, 2005, 17, 121702.	1.6	20
152	Structure identification in pipe flow using proper orthogonal decomposition. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160086.	1.6	20
153	The effect of blade geometry on the structure of vertical axis wind turbine wakes. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 207, 104328.	1.7	20
154	The response of hot wires in high Reynolds-number turbulent pipe flow. Measurement Science and Technology, 2004, 15, 789-798.	1.4	19
155	Experimental Investigation of Two Hypersonic Shock/Turbulent Boundary-Layer Interactions. AIAA Journal, 2018, 56, 4830-4844.	1.5	19
156	Thrust performance of unsteady propulsors using a novel measurement system, and corresponding wake patterns. Experiments in Fluids, 2008, 45, 461-472.	1.1	18
157	Thrust production by a mechanical swimming lamprey. Experiments in Fluids, 2011, 50, 1349-1355.	1.1	18
158	The structure of the wake generated by a submarine model in yaw. Experiments in Fluids, 2015, 56, 1.	1.1	18
159	Scaling Parameters for a Time-Averaged Separation Bubble. Journal of Fluids Engineering, Transactions of the ASME, 1982, 104, 178-184.	0.8	17
160	Response to â€œScaling of the intermediate region in wall-bounded turbulence: The power lawâ€•[Phys. Fluids 10, 1043 (1998)]. Physics of Fluids, 1998, 10, 1045-1046.	1.6	17
161	Experimental study of a Neimarkâ€“Sacker bifurcation in axially forced Taylorâ€“Couette flow. Journal of Fluid Mechanics, 2006, 558, 1.	1.4	17
162	Wall pressure fluctuations in the reattachment region of a supersonic free shear layer. Experiments in Fluids, 1993, 14, 10-16.	1.1	16

#	Article	IF	Citations
163	Effects of hot-wire length on the measurement of turbulent spectra in anisotropic flows. Measurement Science and Technology, 2010, 21, 105407.	1.4	16
164	Low Reynolds Number Turbulent Boundary Layers on a Smooth Flat Surface in a Zero Pressure Gradient. , 1987, , 186-196.		16
165	The effect of varying resistance ratio on the behaviour of constant-temperature hot-wire anemometers. Journal of Physics E: Scientific Instruments, 1980, 13, 451-456.	0.7	15
166	Constant temperature hot-wire anemometer practice in supersonic flows. Experiments in Fluids, 1984, 2, 33-41.	1.1	15
167	Measurements of the mean heat transfer in a shock wave-turbulent boundary layer interaction. Experimental Thermal and Fluid Science, 1996, 12, 87-97.	1.5	15
168	Further support for Townsendâ€™s Reynolds number similarity hypothesis in high Reynolds number rough-wall pipe flow. Physics of Fluids, 2007, 19, 055109.	1.6	15
169	Wall-Pressure Measurements in a Mach 3 Shock-Wave Turbulent Boundary Layer Interaction at a DNS Accessible Reynolds Number. , 2007, , .		14
170	Experimental Investigation of Hypersonic Turbulent Boundary Layer. , 2009, , .		14
171	The flow field and axial thrust generated by a rotating rigid helix at low Reynolds numbers. Experimental Thermal and Fluid Science, 2013, 46, 1-7.	1.5	14
172	Canonical wall-bounded flows: how do they differ?. Journal of Fluid Mechanics, 2015, 774, 1-4.	1.4	14
173	Generating an artificially thickened boundary layer to simulate the neutral atmospheric boundary layer. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 145, 1-16.	1.7	14
174	Batchelor Prize Lecture: Measurements in wall-bounded turbulence. Journal of Fluid Mechanics, 2022, 940, .	1.4	14
175	Analysis of Shockwave/Turbulent Boundary Layer Interaction Using DNS and Experimental Data. , 2005, , .		13
176	Characterization of the Turbulence Structure in Supersonic Boundary Layers Using DNS Data. , 2006, , .		13
177	A note on hot-wire anemometer measurements of turbulence in the presence of temperature fluctuations. Journal of Physics E: Scientific Instruments, 1981, 14, 311-312.	0.7	12
178	Time-sequenced and spectrally filtered Rayleigh imaging of shock wave and boundary layer structure for inlet characterization. , 1993, , .		12
179	Large-Scale Structures in a Compressible Mixing Layer over a Cavity. AIAA Journal, 2003, 41, 2410-2419.	1.5	12
180	PIV Experiments on a Rough Wall Hypersonic Turbulent Boundary Layer. , 2010, , .		12

#	Article	IF	Citations
181	Analysis of a rapidly distorted, supersonic, turbulent boundary layer. Physics of Fluids A, Fluid Dynamics, 1989, 1, 1855-1864.	1.6	11
182	Lateral straining of turbulent boundary layers. Part 2. Streamline convergence. Journal of Fluid Mechanics, 1997, 349, 1-30.	1.4	11
183	Development of NSTAP: Nanoscale Thermal Anemometry Probe. , 2006, , .		11
184	Experiments on the Influence of a Microramp Array on a Hypersonic Shock Turbulent Boundary Layer Interaction. , 2011, , .		11
185	The inertial subrange in turbulent pipe flow: centreline. Journal of Fluid Mechanics, 2016, 788, 602-613.	1.4	11
186	Coherent structures in transitional pipe flow. Physical Review Fluids, 2016, 1, .	1.0	11
187	Effect of short regions of surface curvature on compressible turbulent boundary layers. AIAA Journal, 1990, 28, 113-119.	1.5	10
188	The turbulent wake of a submarine model in pitch and yaw.. , 2013, , .		10
189	Linear stability of two-layer Couette flows. Journal of Fluid Mechanics, 2017, 826, 128-157.	1.4	10
190	Flow past finite cylinders of constant curvature. Journal of Fluid Mechanics, 2018, 837, 896-915.	1.4	10
191	Some observations on Reynolds number scaling in wall-bounded flows. Physical Review Fluids, 2020, 5, .	1.0	10
192	Characteristic scales for energetic eddies in turbulent supersonic boundary layers. Experimental Thermal and Fluid Science, 1997, 14, 85-91.	1.5	9
193	A new calibration method for crossed hot wires. Measurement Science and Technology, 2004, 15, 1926-1931.	1.4	9
194	Effects of Roughness on a Turbulent Bloundary Layer in Hypersonic Flow. , 2009, , .		9
195	Effect of Tripping on Hypersonic Turbulent Boundary-Layer Statistics. AIAA Journal, 2017, 55, 3051-3058.	1.5	9
196	Influence of a Microramp Array on a Hypersonic Shock-Wave/Turbulent Boundary-Layer Interaction. AIAA Journal, 2021, 59, 1924-1939.	1.5	9
197	Turbulent pipe flow response to a step change in surface roughness. Journal of Fluid Mechanics, 2020, 904, .	1.4	8
198	A simple method to monitor hemolysis in real time. Scientific Reports, 2020, 10, 5101.	1.6	8

#	Article	IF	Citations
199	Self-Sustaining Mechanisms of Wall Turbulence. Lecture Notes in Physics, 2001, , 17-38.	0.3	8
200	Turbulent boundary layer response to the introduction of stable stratification. Journal of Fluid Mechanics, 2017, 811, 569-581.	1.4	7
201	Foil shapes for efficient fish-like propulsion. , 2019, , .		7
202	Stereo PIV measurements in fire whirls. Experiments in Fluids, 2019, 60, 1.	1.1	7
203	Turbulence Measurements in Two Shock-Wave/ Shear-Layer Interactions. , 1983, , 279-288.		7
204	A combined experimental and numerical study of a three-dimensional supersonic turbulent boundary layer. Experimental Thermal and Fluid Science, 1994, 9, 156-164.	1.5	6
205	The effects of steamline curvature and pressure gradient on the behavior of turbulent boundary layers in supersonic flow. , 1994, , .		6
206	Applications of dense gases to model testing for aeronautical and hydrodynamic applications. Measurement Science and Technology, 2005, 16, 1710-1715.	1.4	6
207	Binormal cooling errors in crossed hot-wire measurements. Experiments in Fluids, 2006, 40, 212-217.	1.1	6
208	Coherent structures in turbulent square duct flow. International Journal of Heat and Fluid Flow, 2018, 74, 144-153.	1.1	6
209	Bioinspired Underwater Propulsors. , 2020, , 113-139.		6
210	Effects of roughness on a turbulent boundary layer in hypersonic flow. Experiments in Fluids, 2021, 62, 1.	1.1	6
211	The Swimming of Manta Rays. Lecture Notes in Mechanical Engineering, 2014, , 291-300.	0.3	6
212	The Effect of Pitching Frequency on the Hydrodynamics of Oscillating Foils. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	6
213	Response of a compressible, turbulent boundary layer to a short region of surface curvature. AIAA Journal, 1989, 27, 23-28.	1.5	5
214	Comparison of Aero-Optic Distortion in Hypersonic and Transonic, Turbulent Boundary Layers with Gas Injection. , 2006, , .		5
215	The Turbulence Structure of Shockwave and Boundary Layer Interactions in a Compression Corner. , 2006, , .		5
216	Tip and Junction Vortices Generated by the Sail of a Yawed Submarine Model at Low Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2011, 133, .	0.8	5

#	Article	IF	Citations
217	Experimental characterization of three-dimensional corner flows at low Reynolds numbers. Journal of Fluid Mechanics, 2012, 707, 37-52.	1.4	5
218	Vortex and structural dynamics of a flexible cylinder in cross-flow. Physics of Fluids, 2014, 26, .	1.6	5
219	Relaxation of turbulent pipe flow downstream of a square bar roughness element. Journal of Fluid Mechanics, 2021, 922, .	1.4	5
220	High Reynolds Number Wall-Bounded Turbulence and a Proposal for a New Eddy-Based Model. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 51-62.	0.2	5
221	Optimization of LDV geometry. Applied Optics, 1979, 18, 1097.	2.1	4
222	Mean Flowfield Scaling of Supersonic Shock-Free Three-Dimensional Turbulent Boundary Layer. AIAA Journal, 2000, 38, 2120-2126.	1.5	4
223	Measurement of Aero-Optic Distortion in Transonic and Hypersonic, Turbulent Boundary Layers with Gas Injection. , 2005, , .		4
224	Visualizations of the Unsteady Wake of Manta Ray Model. , 2006, , .		4
225	The appearance of P+S modes in the wake of a freely vibrating, highly flexible cylinder. Journal of Fluids and Structures, 2013, 43, 481-486.	1.5	4
226	A new method for measuring turbulent heat fluxes using PIV and fast-response cold-wires. Experiments in Fluids, 2015, 56, 1.	1.1	4
227	Modelling and operation of sub-miniature constant temperature hot-wire anemometry. Measurement Science and Technology, 2016, 27, 125301.	1.4	4
228	The interaction of double burner fire whirls. Combustion and Flame, 2022, 235, 111679.	2.8	4
229	The Effect of Offset on Burner Fire Whirls. Combustion Science and Technology, 2023, 195, 3021-3044.	1.2	4
230	Chaotic advection in a complex annular geometry. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1063-1067.	1.6	3
231	The interplay between experiments and computation in the study of turbulence. Experimental Thermal and Fluid Science, 1992, 5, 579-585.	1.5	3
232	Turbulence Measurements with PIV in a Hypersonic Shock Boundary Layer Interaction. , 2011, , .		3
233	Boundary layer suction through rectangular orifices: effects of aspect ratio and orientation. Experiments in Fluids, 2017, 58, 1.	1.1	3
234	Reynolds Number Effects on the Wake Structure of Pitching Convex Panels. AIAA Journal, 2020, 58, 1397-1401.	1.5	3

#	Article	IF	Citations
235	Multiple distortion of a supersonic turbulent boundary layer. Flow, Turbulence and Combustion, 1993, 51, 223-229.	0.2	2
236	Calibration of the Preston probe for high Reynolds number flows. Measurement Science and Technology, 2001, 12, 495-501.	1.4	2
237	Turbulence Characteristics in High-Reynolds-Number Rough-Wall Pipe Flow. , 2006, , .		2
238	Ultimate evidence for the ultimate regime. Nature Physics, 2018, 14, 330-331.	6.5	2
239	On the Boussinesq approximation in arbitrarily accelerating frames of reference. Journal of Fluid Mechanics, 2021, 924, .	1.4	2
240	The Behaviour of a Compressible Turbulent Boundary Layer Under Incipient Separation Conditions. , 1985, , 235-245.		2
241	Flapping Membranes for Thrust Production. Fluid Mechanics and Its Applications, 2003, , 115-124.	0.1	2
242	Revised Log-Law Constants for Fully-Developed Turbulent Pipe Flow. Fluid Mechanics and Its Applications, 2004, , 265-270.	0.1	2
243	Spatial resolution correction for wall-bounded turbulence measurements. Journal of Fluid Mechanics, 0, , 1-13.	1.4	2
244	The relaxation of a turbulent boundary layer far downstream of a short region of convex curvature. , 1987, , .		1
245	Heat transfer enhancement in a transitional channel flow. Journal of Wind Engineering and Industrial Aerodynamics, 1993, 49, 257-267.	1.7	1
246	Mach and Reynolds number effects on turbulent boundary layer behavior. , 1995, , .		1
247	Summary and appraisal of self-sustaining mechanisms of wall turbulence. I. , 1998, , .		1
248	High Reynolds number flows - A challenge for experiment and simulation. , 1999, , .		1
249	Structure of Large- and Very Large-Scale Motions in Turbulent Pipe Flow. , 2009, , .		1
250	Testing and modelling of a biomimetric swimmer. , 2012, , .		1
251	Perspective on the Response of Turbulent Pipe Flows to Strong Perturbations. Fluids, 2021, 6, 208.	0.8	1
252	Turbulent drag reduction over liquid-infused textured surfaces: effect of the interface dynamics. Journal of Turbulence, 2021, 22, 681-712.	0.5	1

#	Article	IF	Citations
253	Anthony Edward Perry 1937 - 2001. Historical Records of Australian Science, 2010, 21, 91.	0.3	1
254	Modeling Dissipation Scale Distributions at High Reynolds Number. , 2022, , .		1
255	The static response of a bowed inclined hot wire. Experiments in Fluids, 1984, 2, 183-187.	1.1	0
256	The effect of successive distortions of the boundary layer in a supersonic flow. , 1992, , .		0
257	Preliminary Crossed Hot-Wire Measurements in High Reynolds Number Turbulent Pipe Flow. , 2003, , 69.		0
258	Turbulent Flow in Smooth and Rough Pipes (invited). , 2005, , .		0
259	Seymour M. Bogdonoff and the Princeton Gasdynamics Laboratory. , 2006, , .		0
260	Unsteady Propulsion and Wake Structure of a Finite Aspect Ratio Pitching Plate. , 2007, , .		0
261	Three-Dimensional Wake of a Biologically Inspired Propulsor. , 2009, , .		0
262	Experimental Investigation of Helium Injection in a Hypersonic Turbulent Boundary Layer. , 2010, , .		0
263	The role of tail resonance in thrust production and wake formation. , 2011, , .		0
264	Comparison of Geometric Parameterization Methods for Optimal Shape Design in Efficient Flapping Propulsion. , 2019, , .		0
265	Turbulence in Pipe Flows with Small Relative Roughness. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 33-42.	0.1	0
266	Multiple Distortion of a Supersonic Turbulent Boundary Layer. Fluid Mechanics and Its Applications, 1993, , 223-229.	0.1	0
267	A Combined Experimental and Numerical Study of a Three-Dimensional Supersonic Turbulent Boundary Layer. , 1993, , 721-730.		0
268	Compressibility VS. Density Variations and the Structure of Turbulence: A Viewpoint from Experiments. Fluid Mechanics and Its Applications, 1997, , 309-316.	0.1	0
269	Bodies-of-revolution in turbulent flow: comparing computation with experiment. , 2022, , .		0
270	Closure to â€œDiscussion of â€˜Scaling Parameters for a Time-Averaged Separation Bubbleâ€™â€•(1982, ASME J.) Tj ETQq0 0 0 rgBT /O 405-405.	0.8	0