

Ronald Adrian

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2012671/publications.pdf>

Version: 2024-02-01

80
papers

14,696
citations

66234

42
h-index

74018

75
g-index

84
all docs

84
docs citations

84
times ranked

6660
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms for generating coherent packets of hairpin vortices in channel flow. <i>Journal of Fluid Mechanics</i> , 1999, 387, 353-396.	1.4	1,814
2	Vortex organization in the outer region of the turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2000, 422, 1-54.	1.4	1,368
3	A particle image velocimetry system for microfluidics. <i>Experiments in Fluids</i> , 1998, 25, 316-319.	1.1	1,072
4	Twenty years of particle image velocimetry. <i>Experiments in Fluids</i> , 2005, 39, 159-169.	1.1	977
5	Hairpin vortex organization in wall turbulence. <i>Physics of Fluids</i> , 2007, 19, 041301.	1.6	959
6	On the relationships between local vortex identification schemes. <i>Journal of Fluid Mechanics</i> , 2005, 535, 189-214.	1.4	747
7	Very large-scale motion in the outer layer. <i>Physics of Fluids</i> , 1999, 11, 417-422.	1.6	696
8	Fully developed turbulent pipe flow: a comparison between direct numerical simulation and experiment. <i>Journal of Fluid Mechanics</i> , 1994, 268, 175-210.	1.4	640
9	Spanwise structure and scale growth in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2003, 490, 37-74.	1.4	496
10	Large-scale and very-large-scale motions in turbulent pipe flow. <i>Journal of Fluid Mechanics</i> , 2006, 554, 521.	1.4	427
11	Particle Image Velocimetry for Complex and Turbulent Flows. <i>Annual Review of Fluid Mechanics</i> , 2013, 45, 409-436.	10.8	372
12	Large- and very-large-scale motions in channel and boundary-layer flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007, 365, 665-681.	1.6	347
13	Statistical evidence of hairpin vortex packets in wall turbulence. <i>Journal of Fluid Mechanics</i> , 2001, 431, 433-443.	1.4	344
14	Whole field measurement of temperature in water using two-color laser induced fluorescence. <i>Experiments in Fluids</i> , 1999, 26, 7-15.	1.1	323
15	Stochastic estimation of organized turbulent structure: homogeneous shear flow. <i>Journal of Fluid Mechanics</i> , 1988, 190, 531-559.	1.4	269
16	Transition from laminar to turbulent flow in liquid filled microtubes. <i>Experiments in Fluids</i> , 2004, 36, 741-747.	1.1	263
17	Flow past a sphere with an oscillation in the free-stream velocity and unsteady drag at finite Reynolds number. <i>Journal of Fluid Mechanics</i> , 1992, 237, 323-341.	1.4	199
18	Large-scale modes of turbulent channel flow: transport and structure. <i>Journal of Fluid Mechanics</i> , 2001, 448, 53-80.	1.4	182

#	ARTICLE	IF	CITATIONS
19	On the existence of uniform momentum zones in a turbulent boundary layer. <i>Physics of Fluids</i> , 1995, 7, 694-696.	1.6	180
20	PIV study of small-scale flow structure around a Rushton turbine. <i>AIChE Journal</i> , 2001, 47, 766-778.	1.8	177
21	Turbulent flow over large-amplitude wavy surfaces. <i>Journal of Fluid Mechanics</i> , 1984, 140, 27-44.	1.4	171
22	Conditional eddies in isotropic turbulence. <i>Physics of Fluids</i> , 1979, 22, 2065.	1.4	170
23	Turbulent thermal convection in wide horizontal fluid layers. <i>Experiments in Fluids</i> , 1986, 4, 121-141.	1.1	149
24	Unsteady drag on a sphere at finite Reynolds number with small fluctuations in the free-stream velocity. <i>Journal of Fluid Mechanics</i> , 1991, 233, 613-631.	1.4	146
25	Autogeneration of near-wall vortical structures in channel flow. <i>Physics of Fluids</i> , 1996, 8, 288-290.	1.6	141
26	Three-dimensional vortex organization in a high-Reynolds-number supersonic turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2010, 644, 35-60.	1.4	138
27	Particle dispersion in isotropic turbulence under Stokes drag and Basset force with gravitational settling. <i>Journal of Fluid Mechanics</i> , 1991, 225, 481-495.	1.4	123
28	Subgrid-scale energy transfer and near-wall turbulence structure. <i>Physics of Fluids</i> , 1996, 8, 215-224.	1.6	116
29	Impingement of a low Reynolds number turbulent circular jet onto a flat plate at normal incidence. <i>Experiments in Fluids</i> , 1990, 9, 74-84.	1.1	115
30	Packet Structure of Surface Eddies in the Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2003, 106, 147-170.	1.2	112
31	Effects of polymer stresses on eddy structures in drag-reduced turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2007, 584, 281-299.	1.4	110
32	Coherent structures in flow over hydraulic engineering surfaces. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2012, 50, 451-464.	0.7	106
33	Direct numerical simulation of a 30 R^+ long turbulent pipe flow at $R^+_{sup} = 685$: large- and very large-scale motions. <i>Journal of Fluid Mechanics</i> , 2012, 698, 235-281.	1.4	97
34	Structural organization of large and very large scales in turbulent pipe flow simulation. <i>Journal of Fluid Mechanics</i> , 2013, 720, 236-279.	1.4	89
35	Measurement of temperature field of a Rayleigh-Bénard convection using two-color laser-induced fluorescence. <i>Experiments in Fluids</i> , 2004, 37, 331-340.	1.1	87
36	Stochastic estimation of conditional structure: a review. <i>Flow, Turbulence and Combustion</i> , 1994, 53, 291-303.	0.2	86

#	ARTICLE	IF	CITATIONS
37	Energetic spanwise modes in the logarithmic layer of a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2005, 545, 141.	1.4	77
38	On flow-blocking particle structures in microtubes. <i>Microfluidics and Nanofluidics</i> , 2005, 1, 376-380.	1.0	68
39	Double pulsed particle image velocimeter with directional resolution for complex flows. <i>Experiments in Fluids</i> , 2004, 6, 119-128.	1.1	67
40	Stochastic Estimation of Sub-Grid Scale Motions. <i>Applied Mechanics Reviews</i> , 1990, 43, S214-218.	4.5	52
41	Observation of vortex packets in direct numerical simulation of fully turbulent channel flow. <i>Journal of Visualization</i> , 2002, 5, 9-19.	1.1	48
42	Turbulent convection in water over ice. <i>Journal of Fluid Mechanics</i> , 1975, 69, 753-781.	1.4	47
43	Osborne Reynolds pipe flow: Direct simulation from laminar through gradual transition to fully developed turbulence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7920-7924.	3.3	44
44	Spanwise growth of vortex structure in wall turbulence. <i>Journal of Mechanical Science and Technology</i> , 2001, 15, 1741-1749.	0.4	36
45	Effects of background noise on generating coherent packets of hairpin vortices. <i>Physics of Fluids</i> , 2008, 20, .	1.6	30
46	Vortex organization in a turbulent boundary layer overlying sparse roughness elements. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2012, 50, 465-481.	0.7	27
47	Two-Dimensional Velocity Measurements in a Laminar Flame Using Particle Image Velocimetry. <i>Combustion Science and Technology</i> , 1986, 67, 73-83.	1.2	26
48	PIV space-time resolution of flow behind blast waves. <i>Experiments in Fluids</i> , 2010, 49, 193-202.	1.1	26
49	Three-dimensional temperature measurement in turbulent thermal convection by extended range scanning liquid crystal thermometry. <i>Journal of Visualization</i> , 1999, 1, 355-364.	1.1	24
50	Space-time formation of very-large-scale motions in turbulent pipe flow. <i>Journal of Fluid Mechanics</i> , 2019, 881, 1010-1047.	1.4	22
51	Visualization of blast waves created by exploding bridge wires. <i>Journal of Visualization</i> , 2005, 8, 125-135.	1.1	20
52	Experimental study on the role of spanwise vorticity and vortex filaments in the outer region of open-channel flow. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2014, 52, 476-489.	0.7	20
53	The flow structure of jets from transient sources and implications for modeling short-duration explosive volcanic eruptions. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 4831-4845.	1.0	20
54	A High Performance Pulsatile Pump for Aortic Flow Experiments in 3-Dimensional Models. <i>Cardiovascular Engineering and Technology</i> , 2016, 7, 148-158.	0.7	20

#	ARTICLE	IF	CITATIONS
55	A Two-Phase Cinematic PIV Method for Bubbly Flows. Journal of Fluids Engineering, Transactions of the ASME, 1997, 119, 707-712.	0.8	18
56	Analytic solutions for three dimensional swirling strength in compressible and incompressible flows. Physics of Fluids, 2014, 26, .	1.6	16
57	Higher Order Moments in the Entrainment Zone of Turbulent Penetrative Thermal Convection. Journal of Heat Transfer, 1986, 108, 323-329.	1.2	15
58	Particle-image velocimetry measurement in the exhaust of a solid rocket motor. Experiments in Fluids, 2004, 36, 166-175.	1.1	15
59	Effect of small roughness elements on thermal statistics of a turbulent boundary layer at moderate Reynolds number. Journal of Fluid Mechanics, 2016, 787, 84-115.	1.4	14
60	Structure, scaling, and synthesis of proper orthogonal decomposition modes of inhomogeneous turbulence. Physics of Fluids, 2011, 23, .	1.6	13
61	Effects of Bileaflet Mechanical Mitral Valve Rotational Orientation on Left Ventricular Flow Conditions. Open Cardiovascular Medicine Journal, 2015, 9, 62-68.	0.6	12
62	Kinematics of local vortex identification criteria. Journal of Visualization, 2007, 10, 137-140.	1.1	11
63	Optimal solenoidal interpolation of turbulent vector fields: application to PTV and super-resolution PIV. Experiments in Fluids, 2005, 39, 213-221.	1.1	10
64	Closing In on Models of Wall Turbulence. Science, 2010, 329, 155-156.	6.0	9
65	Effect of Reynolds Number on Isotropic Turbulent Dispersion. Journal of Fluids Engineering, Transactions of the ASME, 1995, 117, 402-409.	0.8	8
66	Length and time for development of laminar flow in tubes following a step increase of volume flux. Experiments in Fluids, 2015, 56, 1.	1.1	8
67	Particle response to shock waves in solids: dynamic witness plate/PIV method for detonations. Experiments in Fluids, 2007, 43, 163-171.	1.1	7
68	Temporal dynamics of large-scale structures for turbulent Rayleigh-Bénard convection in a moderate aspect-ratio cylinder. Journal of Fluid Mechanics, 2020, 901, .	1.4	7
69	Rayleigh-Benard convection: experimental study of time-dependent instabilities. Experiments in Fluids, 1988, 6, 316-322.	1.1	5
70	Karhunen-Loève expansion of the derivative of an inhomogeneous process. Physics of Fluids, 1994, 6, 2233-2235.	1.6	5
71	Laminar to fully turbulent flow in a pipe: scalar patches, structural duality of turbulent spots and transitional overshoot. Journal of Fluid Mechanics, 2020, 896, .	1.4	5
72	Comment on "A note on Poisson's equation for pressure in a turbulent flow". Physics of Fluids, 1982, 25, 577.	1.4	4

#	ARTICLE	IF	CITATIONS
73	The Flying Brick: A Cautionary Note on Testing Flying Robots Using Guide Wires. IEEE Transactions on Robotics, 2009, 25, 426-428.	7.3	3
74	Velocity measurements of gas escaping a particle bed during shock-driven expansion. Experiments in Fluids, 2020, 61, 1.	1.1	3
75	Single exposure double frame particle image velocimeters. , 1990, , .		3
76	Engineering applications of particle image velocimeters. , 1989, , .		1
77	Optimization of particle image velocimeters. , 1989, , .		0
78	Convergence of Galerkin solutions using Karhunenâ€“LoÃ“ve expansions of inhomogeneous lâ€“ turbulence. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1695-1697.	1.6	0
79	Symposium on Measurement of Fluid Fields. Applied Mechanics Reviews, 1994, 47, S314-S314.	4.5	0
80	Hairpin Vortex Dynamics and Polymer-Induced Turbulent Drag Reduction. AIP Conference Proceedings, 2008, , .	0.3	0