

Adrián Lozano-Durán

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

1,743
citations

331670

21
h-index

315739

38
g-index

44
all docs

44
docs citations

44
times ranked

907
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of the computational domain on direct simulations of turbulent channels up to $Re_{\tau} = 4200$. <i>Physics of Fluids</i> , 2014, 26, .	4.0	318
2	The three-dimensional structure of momentum transfer in turbulent channels. <i>Journal of Fluid Mechanics</i> , 2012, 694, 100-130.	3.4	199
3	Time-resolved evolution of coherent structures in turbulent channels: characterization of eddies and cascades. <i>Journal of Fluid Mechanics</i> , 2014, 759, 432-471.	3.4	172
4	Aspect ratio effects in turbulent duct flows studied through direct numerical simulation. <i>Journal of Turbulence</i> , 2014, 15, 677-706.	1.4	98
5	Transitional “turbulent spots and turbulent spots in boundary layers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5292-E5299.	7.1	85
6	Dynamic slip wall model for large-eddy simulation. <i>Journal of Fluid Mechanics</i> , 2019, 859, 400-432.	3.4	80
7	Resolvent-based estimation of space-time flow statistics. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	3.4	66
8	Coherent structures in statistically stationary homogeneous shear turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 816, 167-208.	3.4	65
9	Turbulence intensities in large-eddy simulation of wall-bounded flows. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	54
10	Identity of attached eddies in turbulent channel flows with bidimensional empirical mode decomposition. <i>Journal of Fluid Mechanics</i> , 2019, 870, 1037-1071.	3.4	48
11	A statistical state dynamics-based study of the structure and mechanism of large-scale motions in plane Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2016, 809, 290-315.	3.4	44
12	Multiscale analysis of the topological invariants in the logarithmic region of turbulent channels at a friction Reynolds number of 932. <i>Journal of Fluid Mechanics</i> , 2016, 803, 356-394.	3.4	41
13	Characteristic scales of Townsend’s wall-attached eddies. <i>Journal of Fluid Mechanics</i> , 2019, 868, 698-725.	3.4	35
14	Causality of energy-containing eddies in wall turbulence. <i>Journal of Fluid Mechanics</i> , 2020, 882, .	3.4	34
15	Non-equilibrium three-dimensional boundary layers at moderate Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	3.4	34
16	Modeling boundary-layer transition in direct and large-eddy simulations using parabolized stability equations. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	34
17	Flow Control in Wings and Discovery of Novel Approaches via Deep Reinforcement Learning. <i>Fluids</i> , 2022, 7, 62.	1.7	29
18	A multifractal model for the momentum transfer process in wall-bounded flows. <i>Journal of Fluid Mechanics</i> , 2017, 824, .	3.4	27

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19	Error scaling of large-eddy simulation in the outer region of wall-bounded turbulence. Journal of Computational Physics, 2019, 392, 532-555.	3.8	25
20	On the structure of streamwise wall-shear stress fluctuations in turbulent channel flows. Journal of Fluid Mechanics, 2020, 903, .	3.4	24
21	Uncovering Townsend's wall-attached eddies in low-Reynolds-number wall turbulence. Journal of Fluid Mechanics, 2020, 889, .	3.4	23
22	The coherent structure of the kinetic energy transfer in shear turbulence. Journal of Fluid Mechanics, 2020, 892, .	3.4	23
23	Cause-and-effect of linear mechanisms sustaining wall turbulence. Journal of Fluid Mechanics, 2021, 914, .	3.4	23
24	Performance of Wall-Modeled LES with Boundary-Layer-Conforming Grids for External Aerodynamics. AIAA Journal, 2022, 60, 747-766.	2.6	21
25	Turbulent windprint on a liquid surface. Journal of Fluid Mechanics, 2019, 873, 1020-1054.	3.4	18
26	Effect of Wall Boundary Conditions on a Wall-Modeled Large-Eddy Simulation in a Finite-Difference Framework. Fluids, 2021, 6, 112.	1.7	18
27	Prediction of trailing edge separation on the NASA Juncture Flow using wall-modeled LES. , 2020, , .		13
28	Nonlinear mechanism of the self-sustaining process in the buffer and logarithmic layer of wall-bounded flows. Journal of Fluid Mechanics, 2021, 914, .	3.4	13
29	Information transfer between turbulent boundary layers and porous media. Journal of Fluid Mechanics, 2021, 920, .	3.4	13
30	Information-theoretic formulation of dynamical systems: Causality, modeling, and control. Physical Review Research, 2022, 4, .	3.6	13
31	Algorithm 964. ACM Transactions on Mathematical Software, 2016, 42, 1-19.	2.9	11
32	Numerically accurate computation of the conditional trajectories of the topological invariants in turbulent flows. Journal of Computational Physics, 2015, 295, 805-814.	3.8	10
33	Wall-Modeled Large-Eddy Simulation of Turbulent Boundary Layers with Mean-Flow Three-Dimensionality. AIAA Journal, 2021, 59, 1707-1717.	2.6	9
34	Intense Reynolds-stress events in turbulent ducts. International Journal of Heat and Fluid Flow, 2021, 89, 108802.	2.4	7
35	Active flow control for external aerodynamics: from micro air vehicles to a full aircraft in stall. Journal of Physics: Conference Series, 2020, 1522, 012017.	0.4	5
36	Effect of a weak current on wind-generated waves in the wrinkle regime. Physical Review Fluids, 2020, 5, .	2.5	4

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37	Amplitude and wall-normal distance variation of small scales in turbulent boundary layers. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	4
38	Mandala-inspired representation of the turbulent energy cascade. <i>Physical Review Fluids</i> , 2018, 3, 100505.	2.5	2
39	On the structure of streamwise wall-shear stress fluctuations in turbulent channel flows. <i>Journal of Physics: Conference Series</i> , 2020, 1522, 012010.	0.4	1
40	The Turbulence Cascade in Physical Space. <i>ERCOTAC Series</i> , 2019, , 45-50.	0.1	0
41	Alternative physics to understand wall turbulence: Navier–Stokes equations with modified linear dynamics. <i>Journal of Physics: Conference Series</i> , 2020, 1522, 012003.	0.4	0
42	Wall turbulence with constrained energy extraction from the mean flow. , 2018, 2018, 209-220.		0
43	Assessment of information-theoretic-based control of turbulent flow separation of an aircraft in stall. , 2022, , .		0
44	Information-Theoretic Approach for Subgrid-Scale Modeling for High-Speed Compressible Wall Turbulence. , 2022, , .		0