Rodolfo Ostilla Monico

List of Publications by Year
in descending order

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50	1,217	394421	361022
papers	citations	19 h-index	35 g-index

53	53	53	686
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A pencil distributed finite difference code for strongly turbulent wall-bounded flows. Computers and Fluids, 2015, 116, 10-16.	2.5	150
2	Exploring the phase diagram of fully turbulent Taylorâ€“Couette flow. Journal of Fluid Mechanics, 2014, 761, 1-26.	3.4	90
3	Optimal Taylorâ€“Couette flow: direct numerical simulations. Journal of Fluid Mechanics, 2013, 719, 14-46.	3.4	80
4	A multiple-resolution strategy for Direct Numerical Simulation of scalar turbulence. Journal of Computational Physics, 2015, 301, 308-321.	3.8	70
5	Optimal Taylorâ€“Couette flow: radius ratio dependence. Journal of Fluid Mechanics, 2014, 747, 1-29.	3.4	61
6	AFiD-GPU: A versatile Navierâ€“Stokes solver for wall-bounded turbulent flows on GPU clusters. Computer Physics Communications, 2018, 229, 199-210.	7.5	60
7	Boundary layer dynamics at the transition between the classical and the ultimate regime of Taylor-Couette flow. Physics of Fluids, 2014, 26, .	4.0	58
8	Transition to geostrophic convection: the role ofÂtheÂboundary conditions. Journal of Fluid Mechanics, 2016, 799, 413-432.	3.4	56
9	The near-wall region of highly turbulent Taylorâ€“Couette flow. Journal of Fluid Mechanics, 2016, 788, 95-117.	3.4	44
10	A parallel interaction potential approach coupled with the immersed boundary method for fully resolved simulations of deformable interfaces and membranes. Journal of Computational Physics, 2017, 348, 567-590.	3.8	44
11	Effects of the computational domain size on direct numerical simulations of Taylor-Couette turbulence with stationary outer cylinder. Physics of Fluids, 2015, 27, .	4.0	43
12	Turbulence generation through an iterative cascade of the elliptical instability. Science Advances, 2020, 6, eaaz2717.	10.3	43
13	Effect of velocity boundary conditions on the heat transfer and flow topology in two-dimensional Rayleigh-BÃ©nard convection. Physical Review E, 2014, 90, 013017.	2.1	39
14	Logarithmic Mean Temperature Profiles and Their Connection to Plume Emissions in Turbulent Rayleigh-BÃ©nard Convection. Physical Review Letters, 2015, 115, 154501.	7.8	31
15	Direct numerical simulation of Taylorâ€“Couette flow with grooved walls: torque scaling and flow structure. Journal of Fluid Mechanics, 2016, 794, 746-774.	3.4	31
16	Cascade leading to the emergence of small structures in vortex ring collisions. Physical Review Fluids, 2018, 3, .	2.5	29
17	Mixed insulating and conducting thermal boundary conditions in Rayleighâ€“BÃ©nard convection. Journal of Fluid Mechanics, 2018, 835, 491-511.	3.4	28
18	Salinity transfer in bounded double diffusive convection. Journal of Fluid Mechanics, 2015, 768, 476-491.	3.4	27

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19	Competition between Ekman Plumes and Vortex Condensates in Rapidly Rotating Thermal Convection. Physical Review Letters, 2020, 125, 214501.	7.8	19
20	Turbulence decay towards the linearly stable regime of Taylorâ€“Couette flow. Journal of Fluid Mechanics, 2014, 748, .	3.4	18
21	Drag reduction in numerical two-phase Taylorâ€“Couette turbulence using an Eulerâ€“Lagrange approach. Journal of Fluid Mechanics, 2016, 798, 411-435.	3.4	18
22	Dynamics and evolution of turbulent Taylor rolls. Journal of Fluid Mechanics, 2019, 870, 970-987.	3.4	16
23	Effect of roll number on the statistics of turbulent Taylor-Couette flow. Physical Review Fluids, 2016, 1, .	2.5	16
24	Physical and geometric constraints shape the labyrinth-like nasal cavity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2936-2941.	7.1	15
25	Force balance in rapidly rotating Rayleighâ€“BÃ©nard convection. Journal of Fluid Mechanics, 2021, 928, .	3.4	14
26	Turbulent Taylorâ€“Couette flow with stationary inner cylinder. Journal of Fluid Mechanics, 2016, 799, .	3.4	12
27	Statistics of turbulence in the energy-containing range of Taylorâ€“Couette compared to canonical wall-bounded flows. Journal of Fluid Mechanics, 2017, 830, 797-819.	3.4	10
28	Cascades and reconnection in interacting vortex filaments. Physical Review Fluids, 2021, 6, .	2.5	10
29	Instability and disintegration of vortex rings during head-on collisions and wall interactions. Physical Review Fluids, 2021, 6, .	2.5	10
30	Angular momentum transport and flow organization in Taylor-Couette flow at radius ratio of Î·=0.357. Physical Review Fluids, 2019, 4, .	2.5	8
31	A Visualization Framework for Multi-scale Coherent Structures in Taylor-Couette Turbulence. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 902-912.	4.4	7
32	Life stages of wall-bounded decay of Taylor-Couette turbulence. Physical Review Fluids, 2017, 2, .	2.5	7
33	Flow- and temperature-based statistics characterizing the regimes in rapidly rotating turbulent convection in simulations employing no-slip boundary conditions. Physical Review Fluids, 2022, 7, .	2.5	7
34	Controlling turbulent drag across electrolytes using electric fields. Faraday Discussions, 2017, 199, 159-173.	3.2	6
35	Double maxima of angular momentum transport in small gap Taylorâ€“Couette turbulence. Journal of Fluid Mechanics, 2020, 900, .	3.4	6
36	Mixed thermal conditions in convection: how do continents affect the mantleâ€™s circulation?. Journal of Fluid Mechanics, 2017, 822, 1-4.	3.4	5

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37	On the stages of vortex decay in an impulsively stopped, rotating cylinder. Journal of Fluid Mechanics, 2020, 885, .	3.4	5
38	Exploring the large-scale structure of Taylorâ€“Couette turbulence through Large-Eddy Simulations. Journal of Physics: Conference Series, 2018, 1001, 012017.	0.4	4
39	Fluctuation-induced force in homogeneous isotropic turbulence. Science Advances, 2020, 6, eaba0461.	10.3	4
40	Transition between Boundary-Limited Scaling and Mixing-Length Scaling of Turbulent Transport in Internally Heated Convection. Physical Review Letters, 2022, 129, .	7.8	4
41	Identifying coherent structures and vortex clusters in Taylor-Couette turbulence. Journal of Physics: Conference Series, 2016, 708, 012006.	0.4	3
42	Emergence of small scales in vortex ring collisions. Physical Review Fluids, 2018, 3, .	2.5	3
43	Large-scale structures in high-Reynolds-number rotating Waleffe flow. Journal of Fluid Mechanics, 2020, 884, .	3.4	2
44	Dynamic mode decomposition analysis of coherent structures in rotating plane Couette flow. Journal of Physics: Conference Series, 2020, 1522, 012012.	0.4	2
45	Regime crossover in Rayleighâ€“BÃ©nard convection with mixed boundary conditions. Journal of Fluid Mechanics, 2020, 903, .	3.4	1
46	Controlling secondary flows in Taylorâ€“Couette flow using stress-free boundary conditions. Journal of Fluid Mechanics, 2021, 922, .	3.4	1
47	Inertial waves and mean velocity profiles in a rotating pipe and a circular annulus with axial flow. Physical Review E, 2015, 91, 013015.	2.1	0
48	Video: Salt fingers in double diffusive convection bounded by two parallel plates. , 0, , .		0
49	Video: From Rings to Smoke: the Violent Breakdown of Colliding Vortex Rings. , 0, , .		0
50	The effect of modulated driving on non-rotating and rotating turbulent plane Couette flow. Journal of Fluid Mechanics, 2022, 943, .	3.4	0