Xiaozhou He

List of Publications by Year in descending order

34 papers	920 citations	430874 18 h-index	454955 30 g-index
34 all docs	34 docs citations	34 times ranked	397 citing authors

#	Article	IF	Citations
1	Transition to the Ultimate State of Turbulent Rayleigh-BÃ©nard Convection. Physical Review Letters, 2012, 108, 024502.	7.8	190
2	Logarithmic Temperature Profiles in Turbulent Rayleigh-BÃ©nard Convection. Physical Review Letters, 2012, 109, 114501.	7.8	89
3	Heat transport by turbulent Rayleighâ€“BÃ©nard convection forPrâ‰ƒ 0.8 and 3 Ã— 10¹²â‰²Raâ‰² 10¹⁵: aspect ratio Î“ = 0.50. New Journal of Physics, 2012, 14, 103012.	2.9	56
4	Logarithmic temperature profiles of turbulent Rayleighâ€“BÃ©nard convection in the classical and ultimate state for a Prandtl number of 0.8. Journal of Fluid Mechanics, 2014, 758, 436-467.	3.4	48
5	Heat transport by turbulent Rayleighâ€“BÃ©nard convection forPrâ‰ƒ 0.8 and 4 Ã— 10¹¹â‰²Raâ‰² 2 Ã— 10¹⁴: ultimate-state transition for aspect ratio Î“ = 1.00. New Journal of Physics, 2012, 14, 063030.	2.9	47
6	Small-scale turbulent fluctuations beyond Taylorâ€™s frozen-flow hypothesis. Physical Review E, 2010, 81, 065303.	2.1	45
7	Measurements of the thermal dissipation field in turbulent Rayleigh-BÃ©nard convection. Physical Review E, 2009, 79, 026306.	2.1	32
8	Boundary layer fluctuations and their effects on mean and variance temperature profiles in turbulent Rayleigh-BÃ©nard convection. Physical Review Fluids, 2016, 1, .	2.5	31
9	Kraichnanâ€™s random sweeping hypothesis in homogeneous turbulent convection. Physical Review E, 2011, 83, 037302.	2.1	27
10	Bulk temperature and heat transport in turbulent Rayleighâ€“BÃ©nard convection of fluids with temperature-dependent properties. Journal of Fluid Mechanics, 2018, 851, 374-390.	3.4	27
11	Measured Thermal Dissipation Field in Turbulent Rayleigh-BÃ©nard Convection. Physical Review Letters, 2007, 98, 144501.	7.8	26
12	Logarithmic Spatial Variations and Universalfâ^'1Power Spectra of Temperature Fluctuations in Turbulent Rayleigh-BÃ©nard Convection. Physical Review Letters, 2014, 112, 174501.	7.8	23
13	Boundary layer fluctuations in turbulent Rayleighâ€“BÃ©nard convection. Journal of Fluid Mechanics, 2018, 840, 408-431.	3.4	23
14	Turbulent temperature fluctuations in a closed Rayleighâ€“BÃ©nard convection cell. Journal of Fluid Mechanics, 2019, 874, 263-284.	3.4	23
15	Aspect Ratio Dependence of Heat Transfer in a Cylindrical Rayleigh-BÃ©nard Cell. Physical Review Letters, 2022, 128, 084501.	7.8	23
16	Locally averaged thermal dissipation rate in turbulent thermal convection: A decomposition into contributions from different temperature gradient components. Physics of Fluids, 2011, 23, .	4.0	22
17	Reynolds numbers and the elliptic approximation near the ultimate state of turbulent Rayleighâ€“BÃ©nard convection. New Journal of Physics, 2015, 17, 063028.	2.9	21
18	Azimuthal diffusion of the large-scale-circulation plane, and absence of significant non-Boussinesq effects, in turbulent convection near the ultimate-state transition. Journal of Fluid Mechanics, 2016, 791, .	3.4	21

#	Article	IF	Citations
19	Mean velocity and temperature profiles in turbulent Rayleighâ€“BÃ©nard convection at low Prandtl numbers. Journal of Fluid Mechanics, 2021, 918, .	3.4	19
20	Comment on â€œEffect of Boundary Layers Asymmetry on Heat Transfer Efficiency in Turbulent Rayleigh-BÃ©nard Convection at Very High Rayleigh Numbersâ€• Physical Review Letters, 2013, 110, 199401.	7.8	16
21	Scaling behavior in turbulent Rayleigh-BÃ©nard convection revealed by conditional structure functions. Physical Review E, 2013, 87, 013005.	2.1	12
22	Dynamic heterogeneity and conditional statistics of non-Gaussian temperature fluctuations in turbulent thermal convection. Physical Review Fluids, 2018, 3, .	2.5	11
23	Statistics of the locally averaged thermal dissipation rate in turbulent Rayleighâ€“BÃ©nard convection. Journal of Turbulence, 2010, 11, N35.	1.4	10
24	Space-time correlations in turbulent Rayleigh-BÃ©nard convection. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 457-467.	3.4	10
25	Ultimate-state transition of turbulent Rayleigh-BÃ©nard convection. Physical Review Fluids, 2017, 2, .	2.5	9
26	Universal scaling of temperature variance in Rayleighâ€“BÃ©nard convection near the transition to the ultimate state. Journal of Fluid Mechanics, 2022, 931, .	3.4	9
27	Test of the anomalous scaling of passive temperature fluctuations in turbulent Rayleighâ€“BÃ©nard convection with spatial inhomogeneity. Journal of Fluid Mechanics, 2014, 753, 104-130.	3.4	8
28	Collective effect of thermal plumes on temperature fluctuations in a closed Rayleighâ€“BÃ©nard convection cell. Journal of Fluid Mechanics, 2022, 934, .	3.4	8
29	He etÂal. Reply:. Physical Review Letters, 2020, 124, 229402.	7.8	7
30	A model for universal spatial variations of temperature fluctuations in turbulent Rayleigh-BÃ©nard convection. Theoretical and Applied Mechanics Letters, 2021, 11, 100237.	2.8	7
31	Aspect ratio dependence of the ultimate-state transition in turbulent thermal convection. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30022-30023.	7.1	6
32	Heat transport and temperature boundary-layer profiles in closed turbulent Rayleighâ€“BÃ©nard convection with slippery conducting surfaces. Journal of Fluid Mechanics, 2022, 943, .	3.4	6
33	Thermal boundary-layer structure in laminar horizontal convection. Journal of Fluid Mechanics, 2021, 915, .	3.4	5
34	Heat transport in horizontally periodic and confined Rayleigh-BÃ©nard convection with no-slip and free-slip plates. Theoretical and Applied Mechanics Letters, 2022, 12, 100330.	2.8	3