Zhen-Hua Wan

List of Publications by Year
in descending order

62 papers	685 citations	516561 16 h-index	677027 22 g-index
62 all docs	62 docs citations	62 times ranked	429 citing authors

#	Article	IF	Citations
1	Statistical properties of pressure-Hessian tensor in a turbulent channel flow. Journal of Fluid Mechanics, 2022, 934, .	1.4	2
2	Accelerating CFD simulation with high order finite difference method on curvilinear coordinates for modern GPU clusters. Advances in Aerodynamics, 2022, 4, .	1.3	11
3	Nonlinear saturation of bubble evolution in a two-dimensional single-mode stratified compressible Rayleigh-Taylor instability. Physical Review Fluids, 2022, 7, .	1.0	8
4	Noise reduction mechanisms for insert-type serrations of the NACA-0012 airfoil. Journal of Fluid Mechanics, 2022, 941, .	1.4	8
5	Noise reduction in cavity flow by addition of porous media. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	4
6	High-fidelity robust and efficient finite difference algorithm for simulation of polymer-induced turbulence in cylindrical coordinates. Journal of Non-Newtonian Fluid Mechanics, 2022, 307, 104875.	1.0	4
7	Convective amplification of stimulated Raman rescattering in a picosecond laser plasma interaction regime. Matter and Radiation at Extremes, 2021, 6, 015901.	1.5	10
8	Multiscale Simulations of Polymer Flow Between Two Parallel Plates. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	6
9	Origin of Rebound Suppression for Dilute Polymer Solution Droplets on Superhydrophobic Substrate. Langmuir, 2021, 37, 7565-7572.	1.6	6
10	The influence of nonlinearities on jet noise modeling based on parabolized stability equation. Physics of Fluids, 2021, 33, 086107.	1.6	4
11	Radius ratio dependency of the instability of fully compressible convection in rapidly rotating spherical shells. Journal of Fluid Mechanics, 2021, 925, .	1.4	1
12	A reverse transition route from inertial to elasticity-dominated turbulence in viscoelastic Taylorâ€"Couette flow. Journal of Fluid Mechanics, 2021, 927, .	1.4	12
13	The influence of aspect ratio on flow states in the buoyancy-driven turbulence with free slip boundaries. International Journal of Heat and Mass Transfer, 2021, 178, 121639.	2.5	5
14	Thermal convection in a tilted rectangular box. AIP Advances, 2021, 11, .	0.6	1
15	Heat transfer and plume statistics in turbulent thermal convection with sparse fractal roughness. Journal of Hydrodynamics, 2021, 33, 1065-1077.	1.3	2
16	Effect of Mach number on the mode transition for supersonic cavity flows. Aerospace Science and Technology, 2020, 106, 106101.	2.5	11
17	Noise control of subsonic flow past open cavities based on porous floors. Physics of Fluids, 2020, 32, .	1.6	20
18	Numerical investigation of the bevelled effects on shock structure and screech noise in planar supersonic jets. Physics of Fluids, 2020, 32, 086103.	1.6	13

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19	From Rayleighâ€“BÃ©nard convection to porous-media convection: how porosity affects heat transfer and flow structure. Journal of Fluid Mechanics, 2020, 895, .	1.4	32
20	On non-Oberbeckâ€“Boussinesq effects in Rayleighâ€“BÃ©nard convection of air for large temperature differences. Journal of Fluid Mechanics, 2020, 889, .	1.4	21
21	On the near-wall structures and statistics of fluctuating pressure in compressible turbulent channel flows. Physics of Fluids, 2020, 32, .	1.6	20
22	Onset of fully compressible convection in a rapidly rotating spherical shell. Journal of Fluid Mechanics, 2019, 873, 1090-1115.	1.4	11
23	Effect of sidewall on heat transfer and flow structure in Rayleighâ€“BÃ©nard convection. Journal of Fluid Mechanics, 2019, 881, 218-243.	1.4	22
24	Flow organization and heat transfer in two-dimensional tilted convection with aspect ratio 0.5. Physics of Fluids, 2019, 31, .	1.6	17
25	Penetrative turbulent Rayleighâ€“BÃ©nard convection in two and three dimensions. Journal of Fluid Mechanics, 2019, 870, 718-734.	1.4	20
26	Bifurcations in penetrative Rayleigh-BÃ©nard convection in a cylindrical container. Applied Mathematics and Mechanics (English Edition), 2019, 40, 695-704.	1.9	5
27	Two mode coupling of the ablative Rayleigh-Taylor instabilities. Physics of Plasmas, 2019, 26, .	0.7	20
28	Space-time correlations of velocity in a Mach 0.9 turbulent round jet. Physics of Fluids, 2019, 31, .	1.6	9
29	Absolute and convective instabilities in electrohydrodynamic flow subjected to a Poiseuille flow: a linear analysis. Journal of Fluid Mechanics, 2019, 862, 816-844.	1.4	19
30	Non-Oberbeck-Boussinesq effects due to large temperature differences in a differentially heated square cavity filled with air. International Journal of Heat and Mass Transfer, 2019, 128, 479-491.	2.5	39
31	Heat transport enhancement and scaling law transition in two-dimensional Rayleigh-BÃ©nard convection with rectangular-type roughness. International Journal of Heat and Mass Transfer, 2018, 121, 872-883.	2.5	12
32	Linear and weakly nonlinear analysis of Rayleighâ€“BÃ©nard convection of perfect gas with non-Oberbeckâ€“Boussinesq effects. Journal of Fluid Mechanics, 2018, 845, 141-169.	1.4	19
33	The piecewise parabolic method for elastic-plastic flow in solids. Scientific Reports, 2018, 8, 9989.	1.6	1
34	A Study on Slip Characteristics Using Hybrid Particle-Continuum Method. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	0.8	3
35	Instability waves and low-frequency noise radiation in the subsonic chevron jet. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 421-430.	1.5	8
36	Optimal â€˜quietâ€™ inlet perturbation using adjoint-based PSE in supersonic jets. Fluid Dynamics Research, 2018, 50, 045504.	0.6	2

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37	Flow reversals in two-dimensional thermal convection in tilted cells. Journal of Fluid Mechanics, 2018, 849, 355-372.	1.4	44
38	Multiple states and heat transfer in two-dimensional tilted convection with large aspect ratios. Physical Review Fluids, 2018, 3, .	1.0	31
39	Model reduction for supersonic cavity flow using proper orthogonal decomposition (POD) and Galerkin projection. Applied Mathematics and Mechanics (English Edition), 2017, 38, 723-736.	1.9	10
40	The piecewise parabolic method for Riemann problems in nonlinear elasticity. Scientific Reports, 2017, 7, 13497.	1.6	4
41	Thermal Convection in a Tilted Rectangular Cell with Aspect Ratio 0.5. Chinese Physics Letters, 2017, 34, 104401.	1.3	13
42	Coherent structures and wavepackets in subsonic transitional turbulent jets. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 10-19.	1.5	5
43	Mode transition and oscillation suppression in supersonic cavity flow. Applied Mathematics and Mechanics (English Edition), 2016, 37, 941-956.	1.9	14
44	Flow reversals in Rayleighâ€“BÃ©nard convection with non-Oberbeckâ€“Boussinesq effects. Journal of Fluid Mechanics, 2016, 798, 628-642.	1.4	35
45	Nonlinear interaction of instability waves and vortex-pairing noise in axisymmetric subsonic jets. Fluid Dynamics Research, 2016, 48, 055502.	0.6	1
46	Bifurcation analysis of laminar isothermal planar opposed-jet flow. Computers and Fluids, 2016, 140, 72-80.	1.3	6
47	Stability analysis of Rayleigh-BÃ©nard convection in a cylinder with internal heat generation. Physical Review E, 2016, 94, 013108.	0.8	4
48	Instability waves and aerodynamic noise in a subsonic transitional turbulent jet. European Journal of Mechanics, B/Fluids, 2016, 57, 192-203.	1.2	14
49	The Effects of Heating on Noise Generation in Subsonic Transitional Jets. Procedia Engineering, 2015, 126, 29-33.	1.2	1
50	The Effects of Temperature on Vortex-pairing Noise in Axisymmetric Subsonic Jets. Procedia Engineering, 2015, 126, 63-67.	1.2	1
51	Transient growth in Taylor-Couette flow of a Bingham fluid. Physical Review E, 2015, 91, 043202.	0.8	4
52	Numerical Simulation of Shock Bubble Interaction with Different Mach Numbers. Chinese Physics Letters, 2015, 32, 034701.	1.3	6
53	Dynamic mode decomposition of forced spatially developed transitional jets. European Journal of Mechanics, B/Fluids, 2015, 51, 16-26.	1.2	32
54	Linear stability analysis of supersonic axisymmetric jets. Theoretical and Applied Mechanics Letters, 2014, 4, 062005.	1.3	1

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55	Linear instability analysis of convection in a laterally heated cylinder. Journal of Fluid Mechanics, 2014, 747, 447-459.	1.4	9
56	Rayleigh-BÃ©nard convection in a vertical annular container near the convection threshold. Physical Review E, 2014, 89, 043014.	0.8	5
57	A study on large coherent structures and noise emission in a turbulent round jet. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1552-1562.	2.0	3
58	Mode decomposition of a noise suppressed mixing layer. Theoretical and Applied Mechanics Letters, 2013, 3, 042007.	1.3	3
59	Large eddy simulation of flow development and noise generation of free and swirling jets. Physics of Fluids, 2013, 25, .	1.6	17
60	The effects of initial perturbation to mixing-layer noise. Theoretical and Applied Mechanics Letters, 2012, 2, 032003.	1.3	0
61	Sound generation by different vortex interactions in mixing layers. , 2012, , .		6
62	Robustness of the hybrid DRPâ€WENO scheme for shock flow computations. International Journal for Numerical Methods in Fluids, 2012, 70, 985-1003.	0.9	8