

Yantao Yang

List of Publications by Year in descending order

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48
papers

1,065
citations

361413

20
h-index

414414

32
g-index

48
all docs

48
docs citations

48
times ranked

873
citing authors

#	ARTICLE	IF	CITATIONS
1	Reynolds-stress-constrained large-eddy simulation of wall-bounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2012, 703, 1-28.	3.4	112
2	Cascade of Kinetic Energy in Three-Dimensional Compressible Turbulence. <i>Physical Review Letters</i> , 2013, 110, 214505.	7.8	78
3	A multiple-resolution strategy for Direct Numerical Simulation of scalar turbulence. <i>Journal of Computational Physics</i> , 2015, 301, 308-321.	3.8	70
4	Confined Rayleigh-Bénard, Rotating Rayleigh-Bénard, and Double Diffusive Convection: A Unifying View on Turbulent Transport Enhancement through Coherent Structure Manipulation. <i>Physical Review Letters</i> , 2017, 119, 064501.	7.8	67
5	AFiD-GPU: A versatile Navier-Stokes solver for wall-bounded turbulent flows on GPU clusters. <i>Computer Physics Communications</i> , 2018, 229, 199-210.	7.5	60
6	Single-molecule detection and tracking of RNA transcripts in living cells using phosphorothioate-optimized 2'-O-methyl RNA molecular beacons. <i>Biomaterials</i> , 2016, 100, 172-183.	11.4	46
7	Axial stretching and vortex definition. <i>Physics of Fluids</i> , 2005, 17, 038108.	4.0	42
8	A molecular beacon-based approach for live-cell imaging of RNA transcripts with minimal target engineering at the single-molecule level. <i>Scientific Reports</i> , 2017, 7, 1550.	3.3	39
9	A CRISPR/molecular beacon hybrid system for live-cell genomic imaging. <i>Nucleic Acids Research</i> , 2018, 46, e80-e80.	14.5	37
10	From convection rolls to finger convection in double-diffusive turbulence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 69-73.	7.1	31
11	Scaling laws and flow structures of double diffusive convection in the finger regime. <i>Journal of Fluid Mechanics</i> , 2016, 802, 667-689.	3.4	28
12	Steady vortex force theory and slender-wing flow diagnosis. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2007, 23, 609-619.	3.4	27
13	Salinity transfer in bounded double diffusive convection. <i>Journal of Fluid Mechanics</i> , 2015, 768, 476-491.	3.4	27
14	The effect of slip distribution on flow past a circular cylinder. <i>Journal of Fluids and Structures</i> , 2014, 51, 211-224.	3.4	25
15	Roles of Gag-RNA interactions in HIV-1 virus assembly deciphered by single-molecule localization microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6721-6726.	7.1	25
16	Neural network as a function approximator and its application in solving differential equations. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2019, 40, 237-248.	3.6	25
17	Multiple states and transport properties of double-diffusive convection turbulence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14676-14681.	7.1	25
18	Fluid kinematics on a deformable surface. <i>Journal of Fluid Mechanics</i> , 2005, 541, 371.	3.4	23

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19	Channel turbulence with spanwise rotation studied using helical wave decomposition. <i>Journal of Fluid Mechanics</i> , 2012, 692, 137-152.	3.4	21
20	Interactions between inertial particles and shocklets in compressible turbulent flow. <i>Physics of Fluids</i> , 2014, 26, .	4.0	21
21	Flow-induced dissolution of femtoliter surface droplet arrays. <i>Lab on A Chip</i> , 2018, 18, 1066-1074.	6.0	21
22	Effects of nozzle and fluid properties on the drop formation dynamics in a drop-on-demand inkjet printing. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2019, 40, 1239-1254.	3.6	21
23	Helical-wave decomposition and applications to channel turbulence with streamwise rotation. <i>Journal of Fluid Mechanics</i> , 2010, 662, 91-122.	3.4	19
24	Acceleration of Passive Tracers in Compressible Turbulent Flow. <i>Physical Review Letters</i> , 2013, 110, 064503.	7.8	18
25	Effects of the actuation waveform on the drop size reduction in drop-on-demand inkjet printing. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 983-989.	3.4	17
26	Statistics and structures of pressure and density in compressible isotropic turbulence. <i>Journal of Turbulence</i> , 2013, 14, 21-37.	1.4	16
27	Vertically Bounded Double Diffusive Convection in the Finger Regime: Comparing No-Slip versus Free-Slip Boundary Conditions. <i>Physical Review Letters</i> , 2016, 117, 184501.	7.8	16
28	What rotation rate maximizes heat transport in rotating Rayleigh-B�nard convection with Prandtl number larger than one?. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	14
29	Vorticity Dynamics in Axial Compressor Flow Diagnosis and Design. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2008, 130, .	1.5	11
30	Intermittency caused by compressibility: a Lagrangian study. <i>Journal of Fluid Mechanics</i> , 2016, 786, .	3.4	10
31	Two-scalar turbulent Rayleigh-B�nard convection: numerical simulations and unifying theory. <i>Journal of Fluid Mechanics</i> , 2018, 848, 648-659.	3.4	9
32	Double diffusive convection in the finger regime for different Prandtl and Schmidt numbers. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 797-804.	3.4	8
33	Recent progress in compressible turbulence. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2015, 31, 275-291.	3.4	7
34	Layering and vertical transport in sheared double-diffusive convection in the diffusive regime. <i>Journal of Fluid Mechanics</i> , 2022, 933, .	3.4	7
35	Response to "Comment on "Axial stretching and vortex definition" [Phys. Fluids 18, 029101 (2006)]. <i>Physics of Fluids</i> , 2006, 18, 029102.	4.0	6
36	Reynolds stress constrained large eddy simulation of separation flows in a U-duct. <i>Propulsion and Power Research</i> , 2014, 3, 49-58.	4.3	6

#	ARTICLE	IF	CITATIONS
37	Cavity dynamics of water drop impact onto immiscible oil pool with different viscosity. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2021, 37, 447-455.	3.4	5
38	Two-component convection flow driven by a heat-releasing concentration field. <i>Journal of Fluid Mechanics</i> , 2021, 929, .	3.4	5
39	Quantifying Gene Expression in Living Cells with Ratiometric Bimolecular Beacons. <i>Methods in Molecular Biology</i> , 2018, 1649, 231-242.	0.9	4
40	Realizing the ultimate scaling in convection turbulence by spatially decoupling the thermal and viscous boundary layers. <i>Journal of Fluid Mechanics</i> , 2021, 919, .	3.4	4
41	Thermohaline interleaving induced by horizontal temperature and salinity gradients from above. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	3.4	3
42	Droplet impact on wetted structured surfaces. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2022, 43, 437-446.	3.6	3
43	Thermal convection driven by a heat-releasing scalar component. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2022, 38, .	3.4	3
44	Optimizing Molecular Beacons for Intracellular Analysis of RNA. <i>Methods in Molecular Biology</i> , 2018, 1649, 243-257.	0.9	2
45	Flow structures and vertical transport in tilting salt fingers with a background shear. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	1
46	Inertial waves and mean velocity profiles in a rotating pipe and a circular annulus with axial flow. <i>Physical Review E</i> , 2015, 91, 013015.	2.1	0
47	Single-Molecule Analysis of RNA Dynamics in Living Cells Using Molecular Beacons. <i>Methods in Molecular Biology</i> , 2019, 1870, 23-39.	0.9	0
48	An anisotropic immerse precipitation process for the preparation of polymer membranes. <i>Soft Matter</i> , 2022, , .	2.7	0