

# Zuoli Xiao

## List of Publications by Year in descending order

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57  
papers

1,774  
citations

304368

22  
h-index

264894

42  
g-index

58  
all docs

58  
docs citations

58  
times ranked

969  
citing authors

#	ARTICLE	IF	CITATIONS
1	Transition-based constrained large-eddy simulation method with application to an ultrahigh-lift low-pressure turbine cascade flow. <i>Journal of Fluid Mechanics</i> , 2022, 941, .	1.4	8
2	Non-isothermal flow past a heated circular cylinder in subcritical regime: a numerical investigation based on large-eddy simulation. <i>Journal of Turbulence</i> , 2022, 23, 352-381.	0.5	3
3	Refined modelling of the single-mode cylindrical Richtmyerâ€“Meshkov instability. <i>Journal of Fluid Mechanics</i> , 2021, 908, .	1.4	15
4	Numerical investigation on ultra-high-lift low-pressure turbine cascade aerodynamics at low Reynolds numbers using transition-based turbulence models. <i>Journal of Turbulence</i> , 2021, 22, 114-139.	0.5	7
5	Mechanism and modelling of the secondary baroclinic vorticity in the Richtmyerâ€“Meshkov instability. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	20
6	Numerical investigation on motion of an ellipsoidal particle inside confined microcavity flow. <i>Theoretical and Applied Mechanics Letters</i> , 2021, 11, 100234.	1.3	2
7	On the time irreversibility of compressible turbulence reflected by particles of various inertias. <i>Physics of Fluids</i> , 2021, 33, 036113.	1.6	4
8	Numerical investigation of transonic axial compressor rotor flows using an improved transition-sensitized turbulence model. <i>Physics of Fluids</i> , 2021, 33, .	1.6	26
9	Simulation of flow induced by single-dielectric-barrier-discharge plasma actuator using a high-order flux-reconstruction scheme. <i>Physics of Fluids</i> , 2021, 33, 047108.	1.6	12
10	Implicit Time-Spectral Method for Unsteady Reynolds-Averaged Navierâ€“Stokes Computations of Turbulent Flows. <i>AIAA Journal</i> , 2021, 59, 1718-1734.	1.5	2
11	Influence of free-stream turbulence on the aerodynamic performance of a three-dimensional airfoil. <i>AIP Advances</i> , 2021, 11, .	0.6	4
12	Effects of the secondary baroclinic vorticity on the energy cascade in the Richtmyerâ€“Meshkov instability. <i>Journal of Fluid Mechanics</i> , 2021, 925, .	1.4	6
13	An implicit time spectral method using adaptive stabilization. <i>Computers and Fluids</i> , 2021, 227, 105030.	1.3	0
14	A throughflow-based optimization method for multi-stage axial compressor. <i>AIP Advances</i> , 2021, 11, 115207.	0.6	2
15	New insight on large-eddy simulation of flow past a circular cylinder at subcritical Reynolds number 3900. <i>AIP Advances</i> , 2020, 10, .	0.6	30
16	Coupling effects and thin-shell corrections for surface instabilities of cylindrical fluid shells. <i>Physical Review E</i> , 2020, 101, 023108.	0.8	3
17	Transition effects on flow characteristics around a static two-dimensional airfoil. <i>Physics of Fluids</i> , 2020, 32, .	1.6	32
18	Preface: symposium on turbulence structures and aerodynamic heat/force (STSAHF2018). <i>Applied Mathematics and Mechanics (English Edition)</i> , 2019, 40, 181-184.	1.9	2

#	ARTICLE	IF	CITATIONS
19	Single-particle dispersion in compressible turbulence. <i>Physics of Fluids</i> , 2018, 30, .	1.6	17
20	Fully Implicit Chebyshev Time-Spectral Method for General Unsteady Flows. <i>AIAA Journal</i> , 2018, 56, 4474-4486.	1.5	5
21	Constrained large-eddy simulation of supersonic turbulent boundary layer over a compression ramp. <i>Journal of Turbulence</i> , 2017, 18, 781-808.	0.5	8
22	Scale-adaptive subgrid-scale modelling for large-eddy simulation of turbulent flows. <i>Physics of Fluids</i> , 2017, 29, .	1.6	25
23	Dynamic optimization methodology based on subgrid-scale dissipation for large eddy simulation. <i>Physics of Fluids</i> , 2016, 28, .	1.6	13
24	Turbulent kinetic energy production and flow structures in compressible homogeneous shear flow. <i>Physics of Fluids</i> , 2016, 28, 096102.	1.6	16
25	Preferential concentration of heavy particles in compressible isotropic turbulence. <i>Physics of Fluids</i> , 2016, 28, .	1.6	29
26	Intermittency caused by compressibility: a Lagrangian study. <i>Journal of Fluid Mechanics</i> , 2016, 786, .	1.4	10
27	Constrained large-eddy simulation of turbulent flow and heat transfer in a stationary ribbed duct. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2016, 26, 1069-1091.	1.6	12
28	Mach Number Effect of Compressible Flow Around a Circular Cylinder. <i>AIAA Journal</i> , 2016, 54, 2004-2009.	1.5	23
29	Scale-to-scale energy transfer in mixing flow induced by the Richtmyer-Meshkov instability. <i>Physical Review E</i> , 2016, 93, 053112.	0.8	32
30	Constrained Large-Eddy Simulation for Aerodynamics. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 105-115.	0.2	3
31	Comment on "A hybrid subgrid-scale model constrained by Reynolds stress" [Phys. Fluids 25, 110805 (2013)]. <i>Physics of Fluids</i> , 2014, 26, .	1.6	3
32	Interactions between inertial particles and shocklets in compressible turbulent flow. <i>Physics of Fluids</i> , 2014, 26, .	1.6	21
33	Constrained large-eddy simulation of laminar-turbulent transition in channel flow. <i>Physics of Fluids</i> , 2014, 26, .	1.6	21
34	Joint-constraint model for large-eddy simulation of helical turbulence. <i>Physical Review E</i> , 2014, 89, 043021.	0.8	5
35	Constrained Large-Eddy Simulation of Compressible Flow Past a Circular Cylinder. <i>Communications in Computational Physics</i> , 2014, 15, 388-421.	0.7	23
36	Constrained large-eddy simulation and detached eddy simulation of flow past a commercial aircraft at 14 degrees angle of attack. <i>Science China: Physics, Mechanics and Astronomy</i> , 2013, 56, 270-276.	2.0	26

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37	Subgrid-scale eddy viscosity model for helical turbulence. <i>Physics of Fluids</i> , 2013, 25, .	1.6	29
38	Statistics and structures of pressure and density in compressible isotropic turbulence. <i>Journal of Turbulence</i> , 2013, 14, 21-37.	0.5	16
39	Acceleration of Passive Tracers in Compressible Turbulent Flow. <i>Physical Review Letters</i> , 2013, 110, 064503.	2.9	18
40	Refined subgrid-scale model for large-eddy simulation of helical turbulence. <i>Physical Review E</i> , 2013, 87, 013006.	0.8	6
41	Constrained large-eddy simulation of wall-bounded compressible turbulent flows. <i>Physics of Fluids</i> , 2013, 25, .	1.6	39
42	Cascade of Kinetic Energy in Three-Dimensional Compressible Turbulence. <i>Physical Review Letters</i> , 2013, 110, 214505.	2.9	78
43	Constrained large-eddy simulation of separated flow in a channel with streamwise-periodic constrictions. <i>Journal of Turbulence</i> , 2013, 14, 1-21.	0.5	103
44	Effect of compressibility on the small-scale structures in isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2012, 713, 588-631.	1.4	105
45	Constrained Large Eddy Simulation of Wall-Bounded Turbulent Flows. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2012, , 121-130.	0.2	1
46	Scaling and Statistics in Three-Dimensional Compressible Turbulence. <i>Physical Review Letters</i> , 2012, 108, 214505.	2.9	48
47	Reynolds-stress-constrained large-eddy simulation of wall-bounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2012, 703, 1-28.	1.4	112
48	Effect of shocklets on the velocity gradients in highly compressible isotropic turbulence. <i>Physics of Fluids</i> , 2011, 23, .	1.6	70
49	A hybrid numerical simulation of isotropic compressible turbulence. <i>Journal of Computational Physics</i> , 2010, 229, 5257-5279.	1.9	116
50	Dissipation-energy flux correlations as evidence for the Lagrangian energy cascade in turbulence. <i>Physics of Fluids</i> , 2010, 22, .	1.6	24
51	SCALING LAWS, TURBULENCE STRUCTURE AND SUBGRID-SCALE MODELS FOR LARGE EDDY SIMULATION. <i>Modern Physics Letters B</i> , 2010, 24, 1445-1448.	1.0	0
52	Physical mechanism of the inverse energy cascade of two-dimensional turbulence: a numerical investigation. <i>Journal of Fluid Mechanics</i> , 2009, 619, 1-44.	1.4	88
53	Constrained subgrid-scale stress model for large eddy simulation. <i>Physics of Fluids</i> , 2008, 20, .	1.6	63
54	Physical Mechanism of the Two-Dimensional Inverse Energy Cascade. <i>Physical Review Letters</i> , 2006, 96, 084502.	2.9	134

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55	Is the Kelvin Theorem Valid for High Reynolds Number Turbulence?. Physical Review Letters, 2006, 97, 144505.	2.9	20
56	Physical Mechanism of the Two-Dimensional Enstrophy Cascade. Physical Review Letters, 2003, 91, 214501.	2.9	100
57	Effective eddy viscosities in implicit large eddy simulations of turbulent flows. Physics of Fluids, 2003, 15, 3890-3893.	1.6	133