

Shiyi Chen

List of Publications by Year in descending order

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286
papers

24,447
citations

13087

68
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7736

150
g-index

288
all docs

288
docs citations

288
times ranked

10186
citing authors

#	ARTICLE	IF	CITATIONS
1	LATTICE BOLTZMANN METHOD FOR FLUID FLOWS. Annual Review of Fluid Mechanics, 1998, 30, 329-364.	10.8	6,195
2	Recovery of the Navier-Stokes equations using a lattice-gas Boltzmann method. Physical Review A, 1992, 45, R5339-R5342.	1.0	1,289
3	A Novel Thermal Model for the Lattice Boltzmann Method in Incompressible Limit. Journal of Computational Physics, 1998, 146, 282-300.	1.9	1,194
4	A Lattice Boltzmann Scheme for Incompressible Multiphase Flow and Its Application in Simulation of Rayleigh-Taylor Instability. Journal of Computational Physics, 1999, 152, 642-663.	1.9	945
5	Lattice Boltzmann model for simulation of magnetohydrodynamics. Physical Review Letters, 1991, 67, 3776-3779.	2.9	591
6	Simulation of Cavity Flow by the Lattice Boltzmann Method. Journal of Computational Physics, 1995, 118, 329-347.	1.9	521
7	On boundary conditions in lattice Boltzmann methods. Physics of Fluids, 1996, 8, 2527-2536.	1.6	432
8	Mesoscopic predictions of the effective thermal conductivity for microscale random porous media. Physical Review E, 2007, 75, 036702.	0.8	394
9	A public turbulence database cluster and applications to study Lagrangian evolution of velocity increments in turbulence. Journal of Turbulence, 2008, 9, N31.	0.5	373
10	Stability Analysis of Lattice Boltzmann Methods. Journal of Computational Physics, 1996, 123, 196-206.	1.9	346
11	Lattice-Boltzmann Simulations of Fluid Flows in MEMS. Journal of Statistical Physics, 2002, 107, 279-289.	0.5	330
12	A consistent hydrodynamic boundary condition for the lattice Boltzmann method. Physics of Fluids, 1995, 7, 203-209.	1.6	301
13	Camassa-Holm Equations as a Closure Model for Turbulent Channel and Pipe Flow. Physical Review Letters, 1998, 81, 5338-5341.	2.9	272
14	Probability distribution of a stochastically advected scalar field. Physical Review Letters, 1989, 63, 2657-2660.	2.9	250
15	Pore scale study of flow in porous media: Scale dependency, REV, and statistical REV. Geophysical Research Letters, 2000, 27, 1195-1198.	1.5	242
16	Lattice Boltzmann computational fluid dynamics in three dimensions. Journal of Statistical Physics, 1992, 68, 379-400.	0.5	240
17	Physical symmetry and lattice symmetry in the lattice Boltzmann method. Physical Review E, 1997, 55, R21-R24.	0.8	237
18	Displacement of a two-dimensional immiscible droplet in a channel. Physics of Fluids, 2002, 14, 3203-3214.	1.6	233

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19	Lattice Boltzmann simulation of chemical dissolution in porous media. <i>Physical Review E</i> , 2002, 65, 036318.	0.8	214
20	The joint cascade of energy and helicity in three-dimensional turbulence. <i>Physics of Fluids</i> , 2003, 15, 361-374.	1.6	185
21	Examination of hypotheses in the Kolmogorov refined turbulence theory through high-resolution simulations. Part I. Velocity field. <i>Journal of Fluid Mechanics</i> , 1996, 309, 113-156.	1.4	182
22	On the three-dimensional Rayleigh–Taylor instability. <i>Physics of Fluids</i> , 1999, 11, 1143-1152.	1.6	177
23	Direct numerical simulations of the Navier–Stokes alpha model. <i>Physica D: Nonlinear Phenomena</i> , 1999, 133, 66-83.	1.3	150
24	A improved incompressible lattice Boltzmann model for time-independent flows. <i>Journal of Statistical Physics</i> , 1995, 81, 35-48.	0.5	148
25	Flow patterns in the sedimentation of an elliptical particle. <i>Journal of Fluid Mechanics</i> , 2009, 625, 249-272.	1.4	137
26	Numerical experiments on reaction front propagation in n-heptane/air mixture with temperature gradient. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3045-3052.	2.4	135
27	Physical Mechanism of the Two-Dimensional Inverse Energy Cascade. <i>Physical Review Letters</i> , 2006, 96, 084502.	2.9	134
28	Unified lattice Boltzmann method for flow in multiscale porous media. <i>Physical Review E</i> , 2002, 66, 056307.	0.8	124
29	Sweeping decorrelation in isotropic turbulence. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989, 1, 2019-2024.	1.6	121
30	Oxygen vacancy induced performance enhancement of toluene catalytic oxidation using LaFeO ₃ perovskite oxides. <i>Chemical Engineering Journal</i> , 2020, 387, 124101.	6.6	121
31	Electroosmosis in homogeneously charged micro- and nanoscale random porous media. <i>Journal of Colloid and Interface Science</i> , 2007, 314, 264-273.	5.0	119
32	Ca ₂ Fe ₂ O ₅ : A promising oxygen carrier for CO/CH ₄ conversion and almost-pure H ₂ production with inherent CO ₂ capture over a two-step chemical looping hydrogen generation process. <i>Applied Energy</i> , 2018, 211, 431-442.	5.1	119
33	Energy transfer, pressure tensor, and heating of kinetic plasma. <i>Physics of Plasmas</i> , 2017, 24, .	0.7	115
34	Lattice gas automata for flow through porous media. <i>Physica D: Nonlinear Phenomena</i> , 1991, 47, 72-84.	1.3	114
35	Displacement of a three-dimensional immiscible droplet in a duct. <i>Journal of Fluid Mechanics</i> , 2005, 545, 41.	1.4	112
36	Reynolds-stress-constrained large-eddy simulation of wall-bounded turbulent flows. <i>Journal of Fluid Mechanics</i> , 2012, 703, 1-28.	1.4	112

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37	Kinetic energy transfer in compressible isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2018, 841, 581-613.	1.4	112
38	Immiscible displacement in a channel: simulations of fingering in two dimensions. <i>Advances in Water Resources</i> , 2004, 27, 13-22.	1.7	106
39	Effect of compressibility on the small-scale structures in isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2012, 713, 588-631.	1.4	105
40	Non-modal growth of perturbations in density-driven convection in porous media. <i>Journal of Fluid Mechanics</i> , 2008, 609, 285-303.	1.4	104
41	Aerodynamic heating in transitional hypersonic boundary layers: Role of second-mode instability. <i>Physics of Fluids</i> , 2018, 30, .	1.6	103
42	Experimental investigation of chemical-looping hydrogen generation using Al ₂ O ₃ or TiO ₂ -supported iron oxides in a batch fluidized bed. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 8915-8926.	3.8	101
43	Physical Mechanism of the Two-Dimensional Enstrophy Cascade. <i>Physical Review Letters</i> , 2003, 91, 214501.	2.9	100
44	Scaling Relations for a Randomly Advected Passive Scalar Field. <i>Physical Review Letters</i> , 1995, 75, 240-243.	2.9	99
45	Investigation of coal gasification hydrogen and electricity co-production plant with three-reactors chemical looping process. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 8580-8591.	3.8	96
46	Dynamics of Freely Cooling Granular Gases. <i>Physical Review Letters</i> , 2002, 89, 204301.	2.9	95
47	Refined Similarity Hypothesis for Transverse Structure Functions in Fluid Turbulence. <i>Physical Review Letters</i> , 1997, 79, 2253-2256.	2.9	94
48	Coal gasification integration with solid oxide fuel cell and chemical looping combustion for high-efficiency power generation with inherent CO ₂ capture. <i>Applied Energy</i> , 2015, 146, 298-312.	5.1	92
49	Intermittency in the Joint Cascade of Energy and Helicity. <i>Physical Review Letters</i> , 2003, 90, 214503.	2.9	91
50	A continuum atomistic simulation of heat transfer in micro- and nano-flows. <i>Journal of Computational Physics</i> , 2007, 227, 279-291.	1.9	89
51	Is there a statistical mechanics of turbulence?. <i>Physica D: Nonlinear Phenomena</i> , 1989, 37, 160-172.	1.3	88
52	Far-dissipation range of turbulence. <i>Physical Review Letters</i> , 1993, 70, 3051-3054.	2.9	87
53	Transition in Hypersonic Boundary Layers: Role of Dilatational Waves. <i>AIAA Journal</i> , 2016, 54, 3039-3049.	1.5	85
54	Lattice Boltzmann magnetohydrodynamics. <i>Physics of Plasmas</i> , 1994, 1, 1850-1867.	0.7	83

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55	Roughness and cavitations effects on electro-osmotic flows in rough microchannels using the lattice Poisson-Boltzmann methods. <i>Journal of Computational Physics</i> , 2007, 226, 836-851.	1.9	82
56	Momentum-exchange method in lattice Boltzmann simulations of particle-fluid interactions. <i>Physical Review E</i> , 2013, 88, 013303.	0.8	82
57	Recent progress in the study of transition in the hypersonic boundary layer. <i>National Science Review</i> , 2019, 6, 155-170.	4.6	82
58	Experimental study of freely falling thin disks: Transition from planar zigzag to spiral. <i>Physics of Fluids</i> , 2011, 23, .	1.6	80
59	Interface and surface tension in incompressible lattice Boltzmann multiphase model. <i>Computer Physics Communications</i> , 2000, 129, 121-130.	3.0	79
60	Cascade of Kinetic Energy in Three-Dimensional Compressible Turbulence. <i>Physical Review Letters</i> , 2013, 110, 214505.	2.9	78
61	Mesoscopic simulations of phase distribution effects on the effective thermal conductivity of microgranular porous media. <i>Journal of Colloid and Interface Science</i> , 2007, 311, 562-570.	5.0	77
62	Reynolds number dependence of isotropic Navier-Stokes turbulence. <i>Physical Review Letters</i> , 1993, 70, 3251-3254.	2.9	75
63	Three-dimensional effect on the effective thermal conductivity of porous media. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 260-265.	1.3	75
64	Inertial Range Scalings of Dissipation and Enstrophy in Isotropic Turbulence. <i>Physical Review Letters</i> , 1997, 79, 1253-1256.	2.9	74
65	Statistics and structures of pressure in isotropic turbulence. <i>Physics of Fluids</i> , 1999, 11, 2235-2250.	1.6	74
66	Resonant interactions in rotating homogeneous three-dimensional turbulence. <i>Journal of Fluid Mechanics</i> , 2005, 542, 139.	1.4	71
67	Effects of Zr doping on Fe ₂ O ₃ /CeO ₂ oxygen carrier in chemical looping hydrogen generation. <i>Chemical Engineering Journal</i> , 2018, 346, 712-725.	6.6	71
68	Effect of shocklets on the velocity gradients in highly compressible isotropic turbulence. <i>Physics of Fluids</i> , 2011, 23, .	1.6	70
69	Electrokinetic pumping effects of charged porous media in microchannels using the lattice Poisson-Boltzmann method. <i>Journal of Colloid and Interface Science</i> , 2006, 304, 246-253.	5.0	67
70	Chemical looping dry reforming of methane with hydrogen generation on Fe ₂ O ₃ /Al ₂ O ₃ oxygen carrier. <i>Chemical Engineering Journal</i> , 2019, 368, 812-823.	6.6	67
71	Newly identified principle for aerodynamic heating in hypersonic flows. <i>Journal of Fluid Mechanics</i> , 2018, 855, 152-180.	1.4	66
72	Artificial neural network mixed model for large eddy simulation of compressible isotropic turbulence. <i>Physics of Fluids</i> , 2019, 31, .	1.6	66

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73	Onset of convection over a transient base-state in anisotropic and layered porous media. <i>Journal of Fluid Mechanics</i> , 2009, 641, 227-244.	1.4	65
74	Constrained subgrid-scale stress model for large eddy simulation. <i>Physics of Fluids</i> , 2008, 20, .	1.6	63
75	Effects of CeO ₂ , ZrO ₂ , and Al ₂ O ₃ Supports on Iron Oxygen Carrier for Chemical Looping Hydrogen Generation. <i>Energy & Fuels</i> , 2017, 31, 8001-8013.	2.5	63
76	Lattice Boltzmann simulation on particle suspensions in a two-dimensional symmetric stenotic artery. <i>Physical Review E</i> , 2004, 69, 031919.	0.8	62
77	Experimental investigation of freely falling thin disks. Part 1. The flow structures and Reynolds number effects on the zigzag motion. <i>Journal of Fluid Mechanics</i> , 2013, 716, 228-250.	1.4	62
78	Scalings and Relative Scalings in the Navier-Stokes Turbulence. <i>Physical Review Letters</i> , 1996, 76, 3711-3714.	2.9	60
79	Surface tension effects on two-dimensional two-phase Kelvin-Helmholtz instabilities. <i>Advances in Water Resources</i> , 2001, 24, 461-478.	1.7	60
80	Effects of supports on hydrogen production and carbon deposition of Fe-based oxygen carriers in chemical looping hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11006-11016.	3.8	60
81	A model for the laminar flame speed of binary fuel blends and its application to methane/hydrogen mixtures. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 10390-10396.	3.8	59
82	Carbon formation on iron-based oxygen carriers during CH ₄ reduction period in Chemical Looping Hydrogen Generation process. <i>Chemical Engineering Journal</i> , 2017, 325, 322-331.	6.6	59
83	Experimental investigation of freely falling thin disks. Part 2. Transition of three-dimensional motion from zigzag to spiral. <i>Journal of Fluid Mechanics</i> , 2013, 732, 77-104.	1.4	57
84	High-resolution turbulent simulations using the Connection Machine-2. <i>Computers in Physics</i> , 1992, 6, 643.	0.6	54
85	Hybrid continuum-atomistic simulation of singular corner flow. <i>Physics of Fluids</i> , 2004, 16, 3579-3591.	1.6	54
86	Calcium looping gasification for high-concentration hydrogen production with CO ₂ capture in a novel compact fluidized bed: Simulation and operation requirements. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 4887-4899.	3.8	54
87	Effects of Hydrodynamics on Phase Transition Kinetics in Two-Dimensional Binary Fluids. <i>Physical Review Letters</i> , 1995, 74, 3852-3855.	2.9	53
88	Simulations of a randomly advected passive scalar field. <i>Physics of Fluids</i> , 1998, 10, 2867-2884.	1.6	53
89	Enhanced sintering resistance of Fe ₂ O ₃ /CeO ₂ oxygen carrier for chemical looping hydrogen generation using core-shell structure. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 6491-6504.	3.8	53
90	Examination of hypotheses in the Kolmogorov refined turbulence theory through high-resolution simulations. Part 2. Passive scalar field. <i>Journal of Fluid Mechanics</i> , 1999, 400, 163-197.	1.4	52

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91	Steam gasification of sewage sludge with CaO as CO ₂ sorbent for hydrogen-rich syngas production. <i>Biomass and Bioenergy</i> , 2017, 107, 52-62.	2.9	52
92	Spinodal decomposition in fluids: Diffusive, viscous, and inertial regimes. <i>Physical Review E</i> , 1996, 53, 5513-5516.	0.8	51
93	Ignition of methane with hydrogen and dimethyl ether addition. <i>Fuel</i> , 2014, 118, 1-8.	3.4	51
94	Resolving Singular Forces in Cavity Flow: Multiscale Modeling from Atomic to Millimeter Scales. <i>Physical Review Letters</i> , 2006, 96, 134501.	2.9	50
95	Transition in hypersonic boundary layers. <i>AIP Advances</i> , 2015, 5, .	0.6	50
96	Scaling and Statistics in Three-Dimensional Compressible Turbulence. <i>Physical Review Letters</i> , 2012, 108, 214505.	2.9	48
97	Uncovering Molecular Mechanisms of Electrowetting and Saturation with Simulations. <i>Physical Review Letters</i> , 2012, 108, 216101.	2.9	47
98	Thermodynamic assessment and optimization of a pressurized fluidized bed oxy-fuel combustion power plant with CO ₂ capture. <i>Energy</i> , 2019, 175, 445-455.	4.5	47
99	Anomalous Scaling and Structure Instability in Three-Dimensional Passive Scalar Turbulence. <i>Physical Review Letters</i> , 1997, 78, 3459-3462.	2.9	45
100	Turbulent bands in plane-Poiseuille flow at moderate Reynolds numbers. <i>Physics of Fluids</i> , 2015, 27, .	1.6	45
101	Characterization of Fe ₂ O ₃ /CeO ₂ oxygen carriers for chemical looping hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 3154-3164.	3.8	44
102	Statistics of Dissipation and Enstrophy Induced by Localized Vortices. <i>Physical Review Letters</i> , 1998, 81, 4636-4639.	2.9	43
103	Peristaltic particle transport using the lattice Boltzmann method. <i>Physics of Fluids</i> , 2009, 21, .	1.6	43
104	Effects of supports on reduction activity and carbon deposition of iron oxide for methane chemical looping hydrogen generation. <i>Applied Energy</i> , 2018, 225, 912-921.	5.1	43
105	Finite Size Effect in Lattice-BGK Models. <i>International Journal of Modern Physics C</i> , 1997, 08, 763-771.	0.8	41
106	Flame propagation in a tube with wall quenching of radicals. <i>Combustion and Flame</i> , 2013, 160, 2810-2819.	2.8	41
107	Scale dependence of energy transfer in turbulent plasma. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 482, 4933-4940.	1.6	41
108	Ni, Co and Cu-promoted iron-based oxygen carriers in methane-fueled chemical looping hydrogen generation process. <i>Fuel Processing Technology</i> , 2021, 221, 106917.	3.7	40

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109	Constrained large-eddy simulation of wall-bounded compressible turbulent flows. <i>Physics of Fluids</i> , 2013, 25, .	1.6	39
110	Direct numerical simulation of turbulent channel flow with spanwise rotation. <i>Journal of Fluid Mechanics</i> , 2016, 788, 42-56.	1.4	39
111	Hydrogen-rich syngas production via sorption-enhanced steam gasification of sewage sludge. <i>Biomass and Bioenergy</i> , 2020, 138, 105607.	2.9	38
112	Lattice Boltzmann simulation of the two-dimensional Rayleigh-Taylor instability. <i>Physical Review E</i> , 1998, 58, 6861-6864.	0.8	37
113	Energy cascade and its locality in compressible magnetohydrodynamic turbulence. <i>Physical Review E</i> , 2016, 93, 061102.	0.8	37
114	Hypersonic aerodynamic heating over a flared cone with wavy wall. <i>Physics of Fluids</i> , 2019, 31, .	1.6	37
115	Vortex reconnection in the late transition in channel flow. <i>Journal of Fluid Mechanics</i> , 2016, 802, .	1.4	36
116	Integration of chemical looping combustion and supercritical CO ₂ cycle for combined heat and power generation with CO ₂ capture. <i>Energy Conversion and Management</i> , 2018, 167, 113-124.	4.4	36
117	Investigation of synergistic effects and high performance of La-Co composite oxides for toluene catalytic oxidation at low temperature. <i>Environmental Science and Pollution Research</i> , 2019, 26, 12123-12135.	2.7	36
118	Biomass pyrolysis-gasification over Zr promoted CaO-HZSM-5 catalysts for hydrogen and bio-oil co-production with CO ₂ capture. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 16031-16044.	3.8	33
119	Compressibility effect on coherent structures, energy transfer, and scaling in magnetohydrodynamic turbulence. <i>Physics of Fluids</i> , 2017, 29, .	1.6	32
120	Fe ²⁺ -O terminated LaFeO ₃ perovskite oxide surface for low temperature toluene oxidation. <i>Journal of Cleaner Production</i> , 2020, 277, 123224.	4.6	32
121	Sintering and agglomeration of Fe ₂ O ₃ -MgAl ₂ O ₄ oxygen carriers with different Fe ₂ O ₃ loadings in chemical looping processes. <i>Fuel</i> , 2020, 265, 116983.	3.4	32
122	Molecular simulations of electroosmotic flows in rough nanochannels. <i>Journal of Computational Physics</i> , 2010, 229, 7834-7847.	1.9	31
123	Spectra and Mach number scaling in compressible homogeneous shear turbulence. <i>Physics of Fluids</i> , 2018, 30, .	1.6	31
124	Cascades of temperature and entropy fluctuations in compressible turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 867, 195-215.	1.4	30
125	Effect of flow topology on the kinetic energy flux in compressible isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	1.4	30
126	Subgrid-scale eddy viscosity model for helical turbulence. <i>Physics of Fluids</i> , 2013, 25, .	1.6	29

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127	Effect of shock waves on the statistics and scaling in compressible isotropic turbulence. <i>Physical Review E</i> , 2018, 97, 043108.	0.8	29
128	Effects of compressibility and Atwood number on the single-mode Rayleigh-Taylor instability. <i>Physics of Fluids</i> , 2020, 32, 012110.	1.6	29
129	Simulation of three-dimensional compressible decaying isotropic turbulence using a redesigned discrete unified gas kinetic scheme. <i>Physics of Fluids</i> , 2020, 32, .	1.6	29
130	Coupling of high Knudsen number and non-ideal gas effects in microporous media. <i>Journal of Fluid Mechanics</i> , 2018, 840, 56-73.	1.4	28
131	Multiple states in turbulent plane Couette flow with spanwise rotation. <i>Journal of Fluid Mechanics</i> , 2018, 837, 477-490.	1.4	28
132	Generalized hydrodynamic transport in lattice-gas automata. <i>Physical Review A</i> , 1991, 43, 7097-7100.	1.0	27
133	Properties of Velocity Circulation in Three-Dimensional Turbulence. <i>Physical Review Letters</i> , 1996, 76, 616-619.	2.9	27
134	Effective volumetric lattice Boltzmann scheme. <i>Physical Review E</i> , 2001, 63, 056705.	0.8	27
135	Effects of approaching main flow boundary layer on flow and cooling performance of an inclined jet in cross flow. <i>International Journal of Heat and Mass Transfer</i> , 2016, 103, 572-581.	2.5	27
136	Slip boundary conditions over curved surfaces. <i>Physical Review E</i> , 2016, 93, 013105.	0.8	27
137	Inertial range scaling in turbulence. <i>Physical Review E</i> , 1995, 52, R5757-R5759.	0.8	26
138	Is the Kolmogorov Refined Similarity Relation Dynamic or Kinematic?. <i>Physical Review Letters</i> , 1995, 74, 1755-1758.	2.9	26
139	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
140	Effect of wall temperature on the kinetic energy transfer in a hypersonic turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2021, 929, .	1.4	26
141	Scaling of Low-Order Structure Functions in Homogeneous Turbulence. <i>Physical Review Letters</i> , 1996, 77, 3799-3802.	2.9	25
142	Evolution of material surfaces in the temporal transition in channel flow. <i>Journal of Fluid Mechanics</i> , 2016, 793, 840-876.	1.4	25
143	Dissipation-energy flux correlations as evidence for the Lagrangian energy cascade in turbulence. <i>Physics of Fluids</i> , 2010, 22, .	1.6	24
144	A modified optimal LES model for highly compressible isotropic turbulence. <i>Physics of Fluids</i> , 2018, 30, 065108.	1.6	24

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145	Effects of bulk viscosity on compressible homogeneous turbulence. <i>Physics of Fluids</i> , 2019, 31, .	1.6	24
146	Spatially multi-scale artificial neural network model for large eddy simulation of compressible isotropic turbulence. <i>AIP Advances</i> , 2020, 10, .	0.6	24
147	Compressibility effect in hypersonic boundary layer with isothermal wall condition. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	24
148	Constrained Large-Eddy Simulation of Compressible Flow Past a Circular Cylinder. <i>Communications in Computational Physics</i> , 2014, 15, 388-421.	0.7	23
149	Mach Number Effect of Compressible Flow Around a Circular Cylinder. <i>AIAA Journal</i> , 2016, 54, 2004-2009.	1.5	23
150	Sorption enhanced coal gasification for hydrogen production using a synthesized CaOMgO-molecular sieve sorbent. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 17323-17333.	3.8	23
151	Effect of compressibility on small scale statistics in homogeneous shear turbulence. <i>Physics of Fluids</i> , 2019, 31, 025107.	1.6	23
152	Subgrid-scale modeling of helicity and energy dissipation in helical turbulence. <i>Physical Review E</i> , 2006, 74, 026310.	0.8	22
153	Correlations for the ignition delay times of hydrogen/air mixtures. <i>Science Bulletin</i> , 2011, 56, 215-221.	1.7	22
154	Design and Fluid Dynamic Analysis of a Three-Fluidized-Bed Reactor System for Chemical-Looping Hydrogen Generation. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 4267-4278.	1.8	22
155	Enhanced Hydrogen Generation for Fe ₂ O ₃ /CeO ₂ Oxygen Carrier via Rare-Earth (Y, Sm, and La) Doping in Chemical Looping Process. <i>Energy & Fuels</i> , 2018, 32, 11362-11374.	2.5	22
156	Spatial artificial neural network model for subgrid-scale stress and heat flux of compressible turbulence. <i>Theoretical and Applied Mechanics Letters</i> , 2020, 10, 27-32.	1.3	22
157	Near-wall flow structures and related surface quantities in wall-bounded turbulence. <i>Physics of Fluids</i> , 2021, 33, .	1.6	22
158	Interactions between inertial particles and shocklets in compressible turbulent flow. <i>Physics of Fluids</i> , 2014, 26, .	1.6	21
159	Constrained large-eddy simulation of laminar-turbulent transition in channel flow. <i>Physics of Fluids</i> , 2014, 26, .	1.6	21
160	Modulation to compressible homogenous turbulence by heavy point particles. I. Effect of particles' density. <i>Physics of Fluids</i> , 2016, 28, .	1.6	21
161	Synergistic Effects of the Zr and Sm Co-doped Fe ₂ O ₃ /CeO ₂ Oxygen Carrier for Chemical Looping Hydrogen Generation. <i>Energy & Fuels</i> , 2020, 34, 10256-10267.	2.5	21
162	Turbulent statistics and flow structures in spanwise-rotating turbulent plane Couette flows. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	21

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163	Is the Kelvin Theorem Valid for High Reynolds Number Turbulence?. Physical Review Letters, 2006, 97, 144505.	2.9	20
164	Theoretical model of scattering from flow ducts with semi-infinite axial liner splices. Journal of Fluid Mechanics, 2016, 786, 62-83.	1.4	20
165	Role of magnetic field curvature in magnetohydrodynamic turbulence. Physics of Plasmas, 2019, 26, .	0.7	20
166	Process integration of coal fueled chemical looping hydrogen generation with SOFC for power production and CO2 capture. International Journal of Hydrogen Energy, 2017, 42, 28732-28746.	3.8	19
167	Solarâ€“Windâ€“Bio Ecosystem for Biomass Cascade Utilization with Multigeneration of Formic Acid, Hydrogen, and Graphene. ACS Sustainable Chemistry and Engineering, 2019, 7, 2558-2568.	3.2	19
168	Dual channels of helicity cascade in turbulent flows. Journal of Fluid Mechanics, 2020, 894, .	1.4	19
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