

Shiyi Chen

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274
papers

19,818
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62
h-index

137
g-index

288
ext. papers

22,036
ext. citations

4.5
avg, IF

7
L-index

#	Paper	IF	Citations
274	LATTICE BOLTZMANN METHOD FOR FLUID FLOWS. <i>Annual Review of Fluid Mechanics</i> , 1998 , 30, 329-364	2.2	5264
273	Recovery of the Navier-Stokes equations using a lattice-gas Boltzmann method. <i>Physical Review A</i> , 1992 , 45, R5339-R5342	2.6	1062
272	A Novel Thermal Model for the Lattice Boltzmann Method in Incompressible Limit. <i>Journal of Computational Physics</i> , 1998 , 146, 282-300	4.1	1005
271	A Lattice Boltzmann Scheme for Incompressible Multiphase Flow and Its Application in Simulation of Rayleigh-Taylor Instability. <i>Journal of Computational Physics</i> , 1999 , 152, 642-663	4.1	792
270	Lattice Boltzmann model for simulation of magnetohydrodynamics. <i>Physical Review Letters</i> , 1991 , 67, 3776-3779	7.4	498
269	Simulation of Cavity Flow by the Lattice Boltzmann Method. <i>Journal of Computational Physics</i> , 1995 , 118, 329-347	4.1	457
268	On boundary conditions in lattice Boltzmann methods. <i>Physics of Fluids</i> , 1996 , 8, 2527-2536	4.4	369
267	Mesoscopic predictions of the effective thermal conductivity for microscale random porous media. <i>Physical Review E</i> , 2007 , 75, 036702	2.4	303
266	Stability Analysis of Lattice Boltzmann Methods. <i>Journal of Computational Physics</i> , 1996 , 123, 196-206	4.1	297
265	Lattice-Boltzmann Simulations of Fluid Flows in MEMS. <i>Journal of Statistical Physics</i> , 2002 , 107, 279-289	1.5	282
264	A consistent hydrodynamic boundary condition for the lattice Boltzmann method. <i>Physics of Fluids</i> , 1995 , 7, 203-209	4.4	263
263	A public turbulence database cluster and applications to study Lagrangian evolution of velocity increments in turbulence. <i>Journal of Turbulence</i> , 2008 , 9, N31	2.1	243
262	Camassa-Holm Equations as a Closure Model for Turbulent Channel and Pipe Flow. <i>Physical Review Letters</i> , 1998 , 81, 5338-5341	7.4	230
261	Probability distribution of a stochastically advected scalar field. <i>Physical Review Letters</i> , 1989 , 63, 2657-2660	2.4	221
260	Physical symmetry and lattice symmetry in the lattice Boltzmann method. <i>Physical Review E</i> , 1997 , 55, R21-R24	2.4	210
259	Lattice Boltzmann computational fluid dynamics in three dimensions. <i>Journal of Statistical Physics</i> , 1992 , 68, 379-400	1.5	209
258	Displacement of a two-dimensional immiscible droplet in a channel. <i>Physics of Fluids</i> , 2002 , 14, 3203-3214	4.4	204

257	Pore scale study of flow in porous media: Scale dependency, REV, and statistical REV. <i>Geophysical Research Letters</i> , 2000 , 27, 1195-1198	4.9	194
256	Lattice Boltzmann simulation of chemical dissolution in porous media. <i>Physical Review E</i> , 2002 , 65, 0363184	3.4	183
255	The joint cascade of energy and helicity in three-dimensional turbulence. <i>Physics of Fluids</i> , 2003 , 15, 361-374	3.74	160
254	Examination of hypotheses in the Kolmogorov refined turbulence theory through high-resolution simulations. Part 1. Velocity field. <i>Journal of Fluid Mechanics</i> , 1996 , 309, 113-156	3.7	157
253	On the three-dimensional Rayleigh-Taylor instability. <i>Physics of Fluids</i> , 1999 , 11, 1143-1152	4.4	149
252	Direct numerical simulations of the Navier-Stokes alpha model. <i>Physica D: Nonlinear Phenomena</i> , 1999 , 133, 66-83	3.3	135
251	A improved incompressible lattice Boltzmann model for time-independent flows. <i>Journal of Statistical Physics</i> , 1995 , 81, 35-48	1.5	134
250	Physical mechanism of the two-dimensional inverse energy cascade. <i>Physical Review Letters</i> , 2006 , 96, 084502	7.4	116
249	Flow patterns in the sedimentation of an elliptical particle. <i>Journal of Fluid Mechanics</i> , 2009 , 625, 249-273	3.7	115
248	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	5.9	112
247	Sweeping decorrelation in isotropic turbulence. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989 , 1, 2019-2024		106
246	Unified lattice Boltzmann method for flow in multiscale porous media. <i>Physical Review E</i> , 2002 , 66, 0563074	3.74	105
245	Electroosmosis in homogeneously charged micro- and nanoscale random porous media. <i>Journal of Colloid and Interface Science</i> , 2007 , 314, 264-73	9.3	103
244	Lattice gas automata for flow through porous media. <i>Physica D: Nonlinear Phenomena</i> , 1991 , 47, 72-84	3.3	102
243	Displacement of a three-dimensional immiscible droplet in a duct. <i>Journal of Fluid Mechanics</i> , 2005 , 545, 41	3.7	97
242	Non-modal growth of perturbations in density-driven convection in porous media. <i>Journal of Fluid Mechanics</i> , 2008 , 609, 285-303	3.7	95
241	Immiscible displacement in a channel: simulations of fingering in two dimensions. <i>Advances in Water Resources</i> , 2004 , 27, 13-22	4.7	93
240	Scaling relations for a randomly advected passive scalar field. <i>Physical Review Letters</i> , 1995 , 75, 240-243	7.4	91

- 239 Investigation of coal gasification hydrogen and electricity co-production plant with three-reactors chemical looping process. *International Journal of Hydrogen Energy*, **2010**, 35, 8580-8591 6.7 87
- 238 Refined Similarity Hypothesis for Transverse Structure Functions in Fluid Turbulence. *Physical Review Letters*, **1997**, 79, 2253-2256 7.4 86
- 237 Kinetic energy transfer in compressible isotropic turbulence. *Journal of Fluid Mechanics*, **2018**, 841, 581-613 6.7 85
- 236 Physical mechanism of the two-dimensional enstrophy cascade. *Physical Review Letters*, **2003**, 91, 214501 7.4 84
- 235 Reynolds-stress-constrained large-eddy simulation of wall-bounded turbulent flows. *Journal of Fluid Mechanics*, **2012**, 703, 1-28 3.7 83
- 234 Effect of compressibility on the small-scale structures in isotropic turbulence. *Journal of Fluid Mechanics*, **2012**, 713, 588-631 3.7 82
- 233 Experimental investigation of chemical-looping hydrogen generation using Al₂O₃ or TiO₂-supported iron oxides in a batch fluidized bed. *International Journal of Hydrogen Energy*, **2011**, 36, 8915-8926 6.7 81
- 232 Is there a statistical mechanics of turbulence?. *Physica D: Nonlinear Phenomena*, **1989**, 37, 160-172 3.3 80
- 231 Energy transfer, pressure tensor, and heating of kinetic plasma. *Physics of Plasmas*, **2017**, 24, 072306 2.1 79
- 230 Intermittency in the joint cascade of energy and helicity. *Physical Review Letters*, **2003**, 90, 214503 7.4 77
- 229 Ca₂Fe₂O₅: A promising oxygen carrier for CO/CH₄ conversion and almost-pure H₂ production with inherent CO₂ capture over a two-step chemical looping hydrogen generation process. *Applied Energy*, **2018**, 211, 431-442 10.7 76
- 228 Dynamics of freely cooling granular gases. *Physical Review Letters*, **2002**, 89, 204301 7.4 75
- 227 Roughness and cavitations effects on electro-osmotic flows in rough microchannels using the lattice Poisson-Boltzmann methods. *Journal of Computational Physics*, **2007**, 226, 836-851 4.1 74
- 226 Coal gasification integration with solid oxide fuel cell and chemical looping combustion for high-efficiency power generation with inherent CO₂ capture. *Applied Energy*, **2015**, 146, 298-312 10.7 73
- 225 Aerodynamic heating in transitional hypersonic boundary layers: Role of second-mode instability. *Physics of Fluids*, **2018**, 30, 011701 4.4 72
- 224 Interface and surface tension in incompressible lattice Boltzmann multiphase model. *Computer Physics Communications*, **2000**, 129, 121-130 4.2 72
- 223 A continuum-atomistic simulation of heat transfer in micro- and nano-flows. *Journal of Computational Physics*, **2007**, 227, 279-291 4.1 70
- 222 Far-dissipation range of turbulence. *Physical Review Letters*, **1993**, 70, 3051-3054 7.4 70

221	Reynolds number dependence of isotropic Navier-Stokes turbulence. <i>Physical Review Letters</i> , 1993 , 70, 3251-3254	7.4	70
220	Statistics and structures of pressure in isotropic turbulence. <i>Physics of Fluids</i> , 1999 , 11, 2235-2250	4.4	67
219	Lattice Boltzmann magnetohydrodynamics. <i>Physics of Plasmas</i> , 1994 , 1, 1850-1867	2.1	67
218	Transition in Hypersonic Boundary Layers: Role of Dilatational Waves. <i>AIAA Journal</i> , 2016 , 54, 3039-3049	2.1	66
217	Inertial Range Scalings of Dissipation and Enstrophy in Isotropic Turbulence. <i>Physical Review Letters</i> , 1997 , 79, 1253-1256	7.4	66
216	Three-dimensional effect on the effective thermal conductivity of porous media. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 260-265	3	66
215	Momentum-exchange method in lattice Boltzmann simulations of particle-fluid interactions. <i>Physical Review E</i> , 2013 , 88, 013303	2.4	64
214	Resonant interactions in rotating homogeneous three-dimensional turbulence. <i>Journal of Fluid Mechanics</i> , 2005 , 542, 139	3.7	63
213	Experimental study of freely falling thin disks: Transition from planar zigzag to spiral. <i>Physics of Fluids</i> , 2011 , 23, 011702	4.4	62
212	Onset of convection over a transient base-state in anisotropic and layered porous media. <i>Journal of Fluid Mechanics</i> , 2009 , 641, 227-244	3.7	61
211	Cascade of kinetic energy in three-dimensional compressible turbulence. <i>Physical Review Letters</i> , 2013 , 110, 214505	7.4	60
210	Effect of shocklets on the velocity gradients in highly compressible isotropic turbulence. <i>Physics of Fluids</i> , 2011 , 23, 125103	4.4	60
209	Lattice Boltzmann simulation on particle suspensions in a two-dimensional symmetric stenotic artery. <i>Physical Review E</i> , 2004 , 69, 031919	2.4	59
208	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, 562-70	9.3	57
207	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, 246-53	9.3	57
206	Scalings and relative scalings in the Navier-Stokes turbulence. <i>Physical Review Letters</i> , 1996 , 76, 3711-3714	7.4	55
205	Surface tension effects on two-dimensional two-phase Kelvin-Helmholtz instabilities. <i>Advances in Water Resources</i> , 2001 , 24, 461-478	4.7	53
204	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	14.7	51

203	Effects of hydrodynamics on phase transition kinetics in two-dimensional binary fluids. <i>Physical Review Letters</i> , 1995 , 74, 3852-3855	7.4	51
202	High-resolution turbulent simulations using the Connection Machine-2. <i>Computers in Physics</i> , 1992 , 6, 643		51
201	Recent progress in the study of transition in the hypersonic boundary layer. <i>National Science Review</i> , 2019 , 6, 155-170	10.8	50
200	Constrained subgrid-scale stress model for large eddy simulation. <i>Physics of Fluids</i> , 2008 , 20, 011701	4.4	49
199	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	3.7	49
198	Spinodal decomposition in fluids: Diffusive, viscous, and inertial regimes. <i>Physical Review E</i> , 1996 , 53, 5513-5516	2.4	49
197	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	3.7	48
196	Simulations of a randomly advected passive scalar field. <i>Physics of Fluids</i> , 1998 , 10, 2867-2884	4.4	48
195	Newly identified principle for aerodynamic heating in hypersonic flows. <i>Journal of Fluid Mechanics</i> , 2018 , 855, 152-180	3.7	47
194	Ignition of methane with hydrogen and dimethyl ether addition. <i>Fuel</i> , 2014 , 118, 1-8	7.1	46
193	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	4.1	45
192	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	6.7	45
191	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	6.7	45
190	Hybrid continuum-atomistic simulation of singular corner flow. <i>Physics of Fluids</i> , 2004 , 16, 3579-3591	4.4	45
189	Oxygen vacancy induced performance enhancement of toluene catalytic oxidation using LaFeO ₃ perovskite oxides. <i>Chemical Engineering Journal</i> , 2020 , 387, 124101	14.7	44
188	Resolving singular forces in cavity flow: multiscale modeling from atomic to millimeter scales. <i>Physical Review Letters</i> , 2006 , 96, 134501	7.4	44
187	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	6.7	41
186	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	3.7	41

185	Uncovering molecular mechanisms of electrowetting and saturation with simulations. <i>Physical Review Letters</i> , 2012 , 108, 216101	7.4	40
184	Anomalous Scaling and Structure Instability in Three-Dimensional Passive Scalar Turbulence. <i>Physical Review Letters</i> , 1997 , 78, 3459-3462	7.4	39
183	Statistics of Dissipation and Enstrophy Induced by Localized Vortices. <i>Physical Review Letters</i> , 1998 , 81, 4636-4639	7.4	39
182	Scaling and statistics in three-dimensional compressible turbulence. <i>Physical Review Letters</i> , 2012 , 108, 214505	7.4	38
181	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	5.3	37
180	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	14.7	37
179	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	14.7	36
178	Transition in hypersonic boundary layers. <i>AIP Advances</i> , 2015 , 5, 107137	1.5	36
177	Turbulent bands in plane-Poiseuille flow at moderate Reynolds numbers. <i>Physics of Fluids</i> , 2015 , 27, 041702	4.0	35
176	Lattice Boltzmann simulation of the two-dimensional Rayleigh-Taylor instability. <i>Physical Review E</i> , 1998 , 58, 6861-6864	2.4	34
175	Flame propagation in a tube with wall quenching of radicals. <i>Combustion and Flame</i> , 2013 , 160, 2810-2819	3.3	33
174	Peristaltic particle transport using the lattice Boltzmann method. <i>Physics of Fluids</i> , 2009 , 21, 053301	4.4	33
173	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	6.7	32
172	Direct numerical simulation of turbulent channel flow with spanwise rotation. <i>Journal of Fluid Mechanics</i> , 2016 , 788, 42-56	3.7	32
171	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	6.7	32
170	Scale dependence of energy transfer in turbulent plasma. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019 , 482, 4933-4940	4.3	31
169	Finite Size Effect in Lattice-BGK Models. <i>International Journal of Modern Physics C</i> , 1997 , 08, 763-771	1.1	30
168	Energy cascade and its locality in compressible magnetohydrodynamic turbulence. <i>Physical Review E</i> , 2016 , 93, 061102	2.4	29

167	Vortex reconnection in the late transition in channel flow. <i>Journal of Fluid Mechanics</i> , 2016 , 802,	3.7	28
166	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	10.7	27
165	Compressibility effect on coherent structures, energy transfer, and scaling in magnetohydrodynamic turbulence. <i>Physics of Fluids</i> , 2017 , 29, 035105	4.4	26
164	Integration of chemical looping combustion and supercritical CO2 cycle for combined heat and power generation with CO2 capture. <i>Energy Conversion and Management</i> , 2018 , 167, 113-124	10.6	26
163	Artificial neural network mixed model for large eddy simulation of compressible isotropic turbulence. <i>Physics of Fluids</i> , 2019 , 31, 085112	4.4	26
162	Constrained large-eddy simulation of wall-bounded compressible turbulent flows. <i>Physics of Fluids</i> , 2013 , 25, 106102	4.4	26
161	Molecular simulations of electroosmotic flows in rough nanochannels. <i>Journal of Computational Physics</i> , 2010 , 229, 7834-7847	4.1	26
160	Is the Kolmogorov refined similarity relation dynamic or kinematic?. <i>Physical Review Letters</i> , 1995 , 74, 1755-1758	7.4	25
159	Spectra and Mach number scaling in compressible homogeneous shear turbulence. <i>Physics of Fluids</i> , 2018 , 30, 065109	4.4	24
158	Effect of shock waves on the statistics and scaling in compressible isotropic turbulence. <i>Physical Review E</i> , 2018 , 97, 043108	2.4	23
157	Slip boundary conditions over curved surfaces. <i>Physical Review E</i> , 2016 , 93, 013105	2.4	23
156	Effective volumetric lattice Boltzmann scheme. <i>Physical Review E</i> , 2001 , 63, 056705	2.4	23
155	Inertial range scaling in turbulence. <i>Physical Review E</i> , 1995 , 52, R5757-R5759	2.4	23
154	Scaling of Low-Order Structure Functions in Homogeneous Turbulence. <i>Physical Review Letters</i> , 1996 , 77, 3799-3802	7.4	23
153	Hypersonic aerodynamic heating over a flared cone with wavy wall. <i>Physics of Fluids</i> , 2019 , 31, 051702	4.4	22
152	Cascades of temperature and entropy fluctuations in compressible turbulence. <i>Journal of Fluid Mechanics</i> , 2019 , 867, 195-215	3.7	22
151	Thermodynamic assessment and optimization of a pressurized fluidized bed oxy-fuel combustion power plant with CO2 capture. <i>Energy</i> , 2019 , 175, 445-455	7.9	22
150	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	3.6	22

149	Generalized hydrodynamic transport in lattice-gas automata. <i>Physical Review A</i> , 1991 , 43, 7097-7100	2.6	22
148	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	6.7	21
147	Properties of velocity circulation in three-dimensional turbulence. <i>Physical Review Letters</i> , 1996 , 76, 616-619	6.1	21
146	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	4.9	21
145	Dissipation-energy flux correlations as evidence for the Lagrangian energy cascade in turbulence. <i>Physics of Fluids</i> , 2010 , 22, 061702	4.4	20
144	Hydrogen-rich syngas production via sorption-enhanced steam gasification of sewage sludge. <i>Biomass and Bioenergy</i> , 2020 , 138, 105607	5.3	18
143	Multiple states in turbulent plane Couette flow with spanwise rotation. <i>Journal of Fluid Mechanics</i> , 2018 , 837, 477-490	3.7	18
142	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	3.9	18
141	Is the Kelvin theorem valid for high Reynolds number turbulence?. <i>Physical Review Letters</i> , 2006 , 97, 144505	4.5	18
140	Subgrid-scale modeling of helicity and energy dissipation in helical turbulence. <i>Physical Review E</i> , 2006 , 74, 026310	2.4	18
139	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	5.1	17
138	Subgrid-scale eddy viscosity model for helical turbulence. <i>Physics of Fluids</i> , 2013 , 25, 095101	4.4	17
137	Interactions between inertial particles and shocklets in compressible turbulent flow. <i>Physics of Fluids</i> , 2014 , 26, 091702	4.4	17
136	Growth kinetics in multicomponent fluids. <i>Journal of Statistical Physics</i> , 1995 , 81, 223-235	1.5	17
135	Evolution of material surfaces in the temporal transition in channel flow. <i>Journal of Fluid Mechanics</i> , 2016 , 793, 840-876	3.7	17
134	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	6.7	17
133	Coupling of high Knudsen number and non-ideal gas effects in microporous media. <i>Journal of Fluid Mechanics</i> , 2018 , 840, 56-73	3.7	16
132	Correlations for the ignition delay times of hydrogen/air mixtures. <i>Science Bulletin</i> , 2011 , 56, 215-221		16

131	Clustering kinetics of granular media in three dimensions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000 , 269, 218-223	2.3	16
130	Lattice gas automata for simple and complex fluids. <i>Journal of Statistical Physics</i> , 1991 , 64, 1133-1162	1.5	16
129	Effect of compressibility on small scale statistics in homogeneous shear turbulence. <i>Physics of Fluids</i> , 2019 , 31, 025107	4.4	16
128	Application of chemical looping air separation for MILD oxy-combustion: Identifying a suitable operational region. <i>Applied Thermal Engineering</i> , 2018 , 132, 8-17	5.8	15
127	Effects of bulk viscosity on compressible homogeneous turbulence. <i>Physics of Fluids</i> , 2019 , 31, 085115	4.4	15
126	Process integration of coal fueled chemical looping hydrogen generation with SOFC for power production and CO ₂ capture. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 28732-28746	6.7	15
125	Acceleration of passive tracers in compressible turbulent flow. <i>Physical Review Letters</i> , 2013 , 110, 064503	3.4	15
124	Inhibition of turbulent cascade by sweep. <i>Journal of Plasma Physics</i> , 1997 , 57, 187-193	2.7	15
123	The scaling of pressure in isotropic turbulence. <i>Physics of Fluids</i> , 1998 , 10, 2119-2121	4.4	15
122	Effect of flow topology on the kinetic energy flux in compressible isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2020 , 883,	3.7	15
121	Modulation to compressible homogenous turbulence by heavy point particles. I. Effect of particles density. <i>Physics of Fluids</i> , 2016 , 28, 016103	4.4	15
120	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	4.1	15
119	A modified optimal LES model for highly compressible isotropic turbulence. <i>Physics of Fluids</i> , 2018 , 30, 065108	4.4	15
118	Simulation of self-assemblies of colloidal particles on the substrate using a lattice Boltzmann pseudo-solid model. <i>Journal of Computational Physics</i> , 2013 , 248, 323-338	4.1	14
117	Constrained large-eddy simulation of laminar-turbulent transition in channel flow. <i>Physics of Fluids</i> , 2014 , 26, 095103	4.4	14
116	An intermittency model for passive-scalar turbulence. <i>Physics of Fluids</i> , 1997 , 9, 1203-1205	4.4	14
115	Spinodal decomposition in binary fluids under shear flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997 , 239, 428-436	3.3	14
114	Kolmogorov's third hypothesis and turbulent sign statistics. <i>Physical Review Letters</i> , 2003 , 90, 254501	7.4	14

113	Turbulent statistics and flow structures in spanwise-rotating turbulent plane Couette flows. <i>Physical Review Fluids</i> , 2016 , 1,	2.8	14
112	Sinuuous distortion of vortex surfaces in the lateral growth of turbulent spots. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	14
111	Simulation of three-dimensional compressible decaying isotropic turbulence using a redesigned discrete unified gas kinetic scheme. <i>Physics of Fluids</i> , 2020 , 32, 125104	4.4	14
110	Elucidation of syngas composition from catalytic steam gasification of lignin, cellulose, actual and simulated biomasses. <i>Biomass and Bioenergy</i> , 2018 , 115, 210-222	5.3	14
109	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	1.8	13
108	Effects of compressibility and Atwood number on the single-mode Rayleigh-Taylor instability. <i>Physics of Fluids</i> , 2020 , 32, 012110	4.4	13
107	A hybrid scheme for compressible magnetohydrodynamic turbulence. <i>Journal of Computational Physics</i> , 2016 , 306, 73-91	4.1	13
106	Constrained Large-Eddy Simulation of Compressible Flow Past a Circular Cylinder. <i>Communications in Computational Physics</i> , 2014 , 15, 388-421	2.4	13
105	Statistics and structures of pressure and density in compressible isotropic turbulence. <i>Journal of Turbulence</i> , 2013 , 14, 21-37	2.1	13
104	Contact Angle of Glycerol Nanodroplets Under van der Waals Force. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 16169-16173	3.8	13
103	Lattice Boltzmann simulation of a single charged particle in a Newtonian fluid. <i>Physical Review E</i> , 2003 , 68, 011401	2.4	13
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