Zhaoli Guo

List of Publications by Year in descending order

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229 papers 13,108 citations

52 h-index 26613 107 g-index

232 all docs

232 docs citations

times ranked

232

4361 citing authors

#	Article	IF	Citations
1	Discrete lattice effects on the forcing term in the lattice Boltzmann method. Physical Review E, 2002, 65, 046308.	2.1	1,688
2	Non-equilibrium extrapolation method for velocity and pressure boundary conditions in the lattice Boltzmann method. Chinese Physics B, 2002, 11, 366-374.	1.3	685
3	An extrapolation method for boundary conditions in lattice Boltzmann method. Physics of Fluids, 2002, 14, 2007-2010.	4.0	674
4	Lattice Boltzmann model for incompressible flows through porous media. Physical Review E, 2002, 66, 036304.	2.1	530
5	A coupled lattice BGK model for the Boussinesq equations. International Journal for Numerical Methods in Fluids, 2002, 39, 325-342.	1.6	490
6	Lattice BGK Model for Incompressible Navier–Stokes Equation. Journal of Computational Physics, 2000, 165, 288-306.	3.8	376
7	Discrete unified gas kinetic scheme for all Knudsen number flows: Low-speed isothermal case. Physical Review E, 2013, 88, 033305.	2.1	289
8	A LATTICE BOLTZMANN MODEL FOR CONVECTION HEAT TRANSFER IN POROUS MEDIA. Numerical Heat Transfer, Part B: Fundamentals, 2005, 47, 157-177.	0.9	239
9	Thermal lattice Boltzmann equation for low Mach number flows: Decoupling model. Physical Review E, 2007, 75, 036704.	2.1	221
10	Analysis of lattice Boltzmann equation for microscale gas flows: Relaxation times, boundary conditions and the Knudsen layer. International Journal of Computational Fluid Dynamics, 2008, 22, 465-473.	1.2	200
11	General bounce-back scheme for concentration boundary condition in the lattice-Boltzmann method. Physical Review E, 2012, 85, 016701.	2.1	189
12	Lattice Boltzmann model for nonlinear convection-diffusion equations. Physical Review E, 2009, 79, 016701.	2.1	188
13	Discrete unified gas kinetic scheme for all Knudsen number flows. II. Thermal compressible case. Physical Review E, 2015, 91, 033313.	2.1	183
14	Phase-field-based multiple-relaxation-time lattice Boltzmann model for incompressible multiphase flows. Physical Review E, 2014, 89, 053320.	2.1	166
15	Physical symmetry, spatial accuracy, and relaxation time of the lattice Boltzmann equation for microgas flows. Journal of Applied Physics, 2006, 99, 074903.	2.5	165
16	Lattice Boltzmann equation with multiple effective relaxation times for gaseous microscale flow. Physical Review E, 2008, 77, 036707.	2.1	161
17	Explicit finite-difference lattice Boltzmann method for curvilinear coordinates. Physical Review E, 2003, 67, 066709.	2.1	141
18	Evaluation of outflow boundary conditions for two-phase lattice Boltzmann equation. Physical Review E, 2013, 87, 063301.	2.1	131

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19	A Multiple-Relaxation-Time Lattice Boltzmann Model for General Nonlinear Anisotropic Convection–Diffusion Equations. Journal of Scientific Computing, 2016, 69, 355-390.	2.3	122
20	A comparative study of the LBE and GKS methods for 2D near incompressible laminar flows. Journal of Computational Physics, 2008, 227, 4955-4976.	3.8	120
21	Fundamental flame characteristics of premixed H2–air combustion in a planar porous micro-combustor. Chemical Engineering Journal, 2016, 283, 1187-1196.	12.7	115
22	Discrete effects on boundary conditions for the lattice Boltzmann equation in simulating microscale gas flows. Physical Review E, 2007, 76, 056704.	2.1	114
23	Force imbalance in lattice Boltzmann equation for two-phase flows. Physical Review E, 2011, 83, 036707.	2.1	114
24	Multiple-relaxation-time lattice Boltzmann model for generalized Newtonian fluid flows. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 332-342.	2.4	97
25	Theory of the lattice Boltzmann equation: Lattice Boltzmann model for axisymmetric flows. Physical Review E, 2009, 79, 046708.	2.1	93
26	A Lattice Boltzmann Model for Simulating Gas Flow in Kerogen Pores. Transport in Porous Media, 2015, 106, 285-301.	2.6	93
27	A comparative study on the lattice Boltzmann models for predicting effective diffusivity of porous media. International Journal of Heat and Mass Transfer, 2016, 98, 687-696.	4.8	92
28	Numerical study on heat recirculation in a porous micro-combustor. Combustion and Flame, 2016, 171, 152-161.	5.2	88
29	Non-Darcy flow in disordered porous media: A lattice Boltzmann study. Computers and Fluids, 2010, 39, 2069-2077.	2.5	87
30	Discrete unified gas kinetic scheme on unstructured meshes. Computers and Fluids, 2016, 127, 211-225.	2.5	83
31	An extended Navier-Stokes formulation for gas flows in the Knudsen layer near a wall. Europhysics Letters, 2007, 80, 24001.	2.0	79
32	Numerical study of three-dimensional natural convection in a cubical cavity at high Rayleigh numbers. International Journal of Heat and Mass Transfer, 2017, 113, 217-228.	4.8	78
33	Discrete unified gas kinetic scheme for multiscale heat transfer based on the phonon Boltzmann transport equation. International Journal of Heat and Mass Transfer, 2016, 102, 944-958.	4.8	77
34	Numerical simulation of particle capture process of fibrous filters using Lattice Boltzmann two-phase flow model. Powder Technology, 2012, 227, 111-122.	4.2	76
35	Drafting, kissing and tumbling process of two particles with different sizes. Computers and Fluids, 2014, 96, 20-34.	2.5	75
36	Lattice Boltzmann simulation of surface roughness effect on gaseous flow in a microchannel. Journal of Applied Physics, 2008, 104, .	2.5	73

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37	A lattice Boltzmann algorithm for electro-osmotic flows in microfluidic devices. Journal of Chemical Physics, 2005, 122, 144907.	3.0	72
38	Implementation issues and benchmarking of lattice Boltzmann method for moving rigid particle simulations in a viscous flow. Computers and Mathematics With Applications, 2016, 72, 349-374.	2.7	70
39	A comparative study of discrete velocity methods for low-speed rarefied gas flows. Computers and Fluids, 2018, 161, 33-46.	2.5	70
40	A Comparative Study of LBE and DUGKS Methods for Nearly Incompressible Flows. Communications in Computational Physics, 2015, 17, 657-681.	1.7	67
41	Effects of heat transfer on flame stability limits in a planar micro-combustor partially filled with porous medium. Proceedings of the Combustion Institute, 2019, 37, 5645-5654.	3.9	67
42	Gas Flow Through Square Arrays of Circular Cylinders with Klinkenberg Effect: a Lattice Boltzmann Study. Communications in Computational Physics, 2010, 8, 1052-1073.	1.7	66
43	An investigation on momentum exchange methods and refilling algorithms for lattice Boltzmann simulation of particulate flows. Computers and Fluids, 2016, 133, 1-14.	2.5	66
44	Lattice Boltzmann simulation of particle-laden turbulent channel flow. Computers and Fluids, 2016, 124, 226-236.	2.5	65
45	Preconditioned lattice-Boltzmann method for steady flows. Physical Review E, 2004, 70, 066706.	2.1	60
46	Finite difference-based lattice Boltzmann simulation of natural convection heat transfer in a horizontal concentric annulus. Computers and Fluids, 2006, 35, 1-15.	2.5	58
47	Lattice Boltzmann simulation of natural convection with temperature-dependent viscosity in a porous cavity. Progress in Computational Fluid Dynamics, 2005, 5, 110.	0.2	57
48	Volume-averaged macroscopic equation for fluid flow in moving porous media. International Journal of Heat and Mass Transfer, 2015, 82, 357-368.	4.8	57
49	A lattice Boltzmann model for axisymmetric thermal flows through porous media. International Journal of Heat and Mass Transfer, 2010, 53, 5519-5527.	4.8	55
50	Velocity inversion of micro cylindrical Couette flow: A lattice Boltzmann study. Computers and Mathematics With Applications, 2011, 61, 3519-3527.	2.7	55
51	Finite-difference-based lattice Boltzmann model for dense binary mixtures. Physical Review E, 2005, 71, 026701.	2.1	54
52	Lattice Boltzmann scheme for simulating thermal micro-flow. Physica A: Statistical Mechanics and Its Applications, 2007, 385, 59-68.	2.6	54
53	A Lattice BGK Scheme with General Propagation. Journal of Scientific Computing, 2001, 16, 569-585.	2.3	52
54	Phase-field-based lattice Boltzmann model for axisymmetric multiphase flows. Physical Review E, 2014, 90, 063311.	2.1	51

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55	DUGKS simulations of three-dimensional Taylor–Green vortex flow and turbulent channel flow. Computers and Fluids, 2017, 155, 9-21.	2.5	51
56	Molecular dynamics study of interfacial properties in CO 2 enhanced oil recovery. Fluid Phase Equilibria, 2018, 467, 25-32.	2.5	51
57	Review of micro seepage mechanisms in shale gas reservoirs. International Journal of Heat and Mass Transfer, 2019, 139, 144-179.	4.8	51
58	Boundary condition for lattice Boltzmann modeling of microscale gas flows with curved walls in the slip regime. Physical Review E, 2015, 91, 043305.	2.1	50
59	Lattice Boltzmann equation for axisymmetric thermal flows. Computers and Fluids, 2010, 39, 945-952.	2.5	48
60	Multiple-relaxation-time lattice Boltzmann model for incompressible miscible flow with large viscosity ratio and high Péclet number. Physical Review E, 2015, 92, 043305.	2.1	47
61	A modified lattice Bhatnagar–Gross–Krook model for convection heat transfer in porous media. International Journal of Heat and Mass Transfer, 2016, 94, 269-291.	4.8	46
62	Progress of discrete unified gas-kinetic scheme for multiscale flows. Advances in Aerodynamics, 2021, 3, .	2.5	46
63	A lattice Boltzmann study of gas flows in a long micro-channel. Computers and Mathematics With Applications, 2013, 65, 186-193.	2.7	45
64	A combined immersed boundary and discrete unified gas kinetic scheme for particle–fluid flows. Journal of Computational Physics, 2018, 375, 498-518.	3.8	45
65	Discrete velocity and lattice Boltzmann models for binary mixtures of nonideal fluids. Physical Review E, 2003, 68, 035302.	2.1	44
66	dugksFoam: An open source OpenFOAM solver for the Boltzmann model equation. Computer Physics Communications, 2017, 213, 155-164.	7.5	43
67	Multiple-relaxation-time model for the correct thermohydrodynamic equations. Physical Review E, 2008, 78, 026705.	2.1	42
68	Performance evaluation of the general characteristics based off-lattice Boltzmann scheme and DUGKS for low speed continuum flows. Journal of Computational Physics, 2017, 333, 227-246.	3.8	42
69	Comparison of the lattice Boltzmann equation and discrete unified gas-kinetic scheme methods for direct numerical simulation of decaying turbulent flows. Physical Review E, 2016, 94, 043304.	2.1	41
70	Lattice-BGK simulation of a two-dimensional channel flow around a square cylinder. Chinese Physics B, 2003, 12, 67-74.	1.3	40
71	Immersed boundary lattice Boltzmann model based on multiple relaxation times. Physical Review E, 2012, 85, 016711.	2.1	40
72	Numerical study of heat transfer enhancement in a pipe filled with porous media by axisymmetric TLB model based on GPU. International Journal of Heat and Mass Transfer, 2014, 70, 1040-1049.	4.8	40

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73	Direct numerical simulation of turbulent pipe flow using the lattice Boltzmann method. Journal of Computational Physics, 2018, 357, 16-42.	3.8	40
74	Multi-relaxation-time lattice Boltzmann model for axisymmetric flows. Computers and Fluids, 2010, 39, 1542-1548.	2.5	38
75	Discrete unified gas kinetic scheme for all Knudsen number flows. III. Binary gas mixtures of Maxwell molecules. Physical Review E, 2018, 97, 053306.	2.1	37
76	A multi-level parallel solver for rarefied gas flows in porous media. Computer Physics Communications, 2019, 234, 14-25.	7. 5	37
77	Effects of force discretization on mass conservation in lattice Boltzmann equation for two-phase flows. Europhysics Letters, 2012, 99, 64005.	2.0	36
78	A coupled discrete unified gas-kinetic scheme for Boussinesq flows. Computers and Fluids, 2015, 120, 70-81.	2.5	36
79	A discrete unified gas-kinetic scheme for immiscible two-phase flows. International Journal of Heat and Mass Transfer, 2018, 126, 1326-1336.	4.8	36
80	Simple kinetic model for fluid flows in the nanometer scale. Physical Review E, 2005, 71, 035301.	2.1	35
81	Flow Modulation by Finite-Size Neutrally Buoyant Particles in a Turbulent Channel Flow. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	1.5	35
82	Discrete unified gas kinetic scheme for flows of binary gas mixture based on the McCormack model. Physics of Fluids, 2019, 31, .	4.0	34
83	Shrinkage of bubbles and drops in the lattice Boltzmann equation method for nonideal gases. Physical Review E, 2014, 89, 033302.	2.1	33
84	Well-balanced lattice Boltzmann model for two-phase systems. Physics of Fluids, 2021, 33, .	4.0	33
85	Generalized hydrodynamic model for fluid flows: From nanoscale to macroscale. Physics of Fluids, 2006, 18, 067107.	4.0	32
86	A Coupled Lattice Boltzmann Method to Solve Nernst–Planck Model for Simulating Electro-osmotic Flows. Journal of Scientific Computing, 2014, 61, 222-238.	2.3	32
87	Generalized second-order slip boundary condition for nonequilibrium gas flows. Physical Review E, 2014, 89, 013021.	2.1	31
88	A unified implicit scheme for kinetic model equations. Part I. Memory reduction technique. Science Bulletin, 2017, 62, 119-129.	9.0	31
89	Lattice Boltzmann method for simulations of gas-particle flows over a backward-facing step. Journal of Computational Physics, 2013, 239, 57-71.	3.8	30
90	A Localized Mass-Conserving Lattice Boltzmann Approach for Non-Newtonian Fluid Flows. Communications in Computational Physics, 2015, 17, 908-924.	1.7	30

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91	Localized lattice Boltzmann equation model for simulating miscible viscous displacement in porous media. International Journal of Heat and Mass Transfer, 2016, 100, 767-778.	4.8	30
92	LATTICE BOLTZMANN SIMULATION ON NATURAL CONVECTION HEAT TRANSFER IN A TWO-DIMENSIONAL CAVITY FILLED WITH HETEROGENEOUSLY POROUS MEDIUM. International Journal of Modern Physics C, 2006, 17, 771-783.	1.7	29
93	Lattice Boltzmann model for high-order nonlinear partial differential equations. Physical Review E, 2018, 97, 013304.	2.1	29
94	An implicit kinetic scheme for multiscale heat transfer problem accounting for phonon dispersion and polarization. International Journal of Heat and Mass Transfer, 2019, 130, 1366-1376.	4.8	29
95	Simulation of three-dimensional compressible decaying isotropic turbulence using a redesigned discrete unified gas kinetic scheme. Physics of Fluids, 2020, 32, .	4.0	29
96	Study of electro-osmotic flows in microchannels packed with variable porosity media via lattice Boltzmann method. Journal of Applied Physics, 2007, 101, 104913.	2.5	28
97	Lattice Boltzmann equation for microscale gas flows of binary mixtures. Physical Review E, 2009, 79, 026702.	2.1	28
98	Lattice Boltzmann simulation of some nonlinear convection–diffusion equations. Computers and Mathematics With Applications, 2011, 61, 3443-3452.	2.7	28
99	Evaluation of Three Lattice Boltzmann Models for Particulate Flows. Communications in Computational Physics, 2013, 13, 1151-1172.	1.7	28
100	Gas slippage effect on the permeability of circular cylinders in a square array. International Journal of Heat and Mass Transfer, 2011, 54, 3009-3014.	4.8	26
101	Multi-GPU Based Lattice Boltzmann Method for Hemodynamic Simulation in Patient-Specific Cerebral Aneurysm. Communications in Computational Physics, 2015, 17, 960-974.	1.7	26
102	Numerical study on the sedimentation of single and multiple slippery particles in a Newtonian fluid. Powder Technology, 2017, 315, 126-138.	4.2	25
103	Effect of interaction between a particle cluster and a single particle on particle motion and distribution during sedimentation: A numerical study. Physics of Fluids, 2019, 31, .	4.0	25
104	LATTICE BOLTZMANN METHOD IN SIMULATION OF THERMAL MICRO-FLOW WITH TEMPERATURE JUMP. International Journal of Modern Physics C, 2006, 17, 603-614.	1.7	24
105	Kinetic theory based lattice Boltzmann equation with viscous dissipation and pressure work for axisymmetric thermal flows. Journal of Computational Physics, 2010, 229, 5843-5856.	3.8	24
106	Simultaneous incorporation of mass and force terms in the multi-relaxation-time framework for lattice Boltzmann schemes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2219-2227.	3.4	24
107	CFD study on stability limits of hydrogen/air premixed flames in planar micro-combustors with catalytic walls. Applied Thermal Engineering, 2017, 121, 325-335.	6.0	24
108	Pore-scale study on reactive mixing of miscible solutions with viscous fingering in porous media. Computers and Fluids, 2017, 155, 146-160.	2.5	24

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109	A fractional step lattice Boltzmann model for two-phase flow with large density differences. International Journal of Heat and Mass Transfer, 2019, 138, 1128-1141.	4.8	24
110	Pore-scale simulations of rarefied gas flows in ultra-tight porous media. Fuel, 2019, 249, 341-351.	6.4	24
111	Application of discrete unified gas kinetic scheme to thermally induced nonequilibrium flows. Computers and Fluids, 2019, 193, 103613.	2.5	24
112	Simplification of the unified gas kinetic scheme. Physical Review E, 2016, 94, 023313.	2.1	23
113	Lattice Boltzmann method for binary fluids based on mass-conserving quasi-incompressible phase-field theory. Physical Review E, 2016, 93, 043303.	2.1	23
114	A numerical study on the migration of a neutrally buoyant particle in a Poiseuille flow with thermal convection. International Journal of Heat and Mass Transfer, 2017, 108, 2158-2168.	4.8	23
115	Numerical study of nonequilibrium gas flow in a microchannel with a ratchet surface. Physical Review E, 2017, 95, 023113.	2.1	23
116	Temperature dependence of the velocity boundary condition for nanoscale fluid flows. Physical Review E, 2005, 72, 036301.	2.1	22
117	High-order lattice-Boltzmann model for the Cahn-Hilliard equation. Physical Review E, 2019, 99, 043310.	2.1	22
118	Contribution quantification of nanoscale gas transport in shale based on strongly inhomogeneous kinetic model. Energy, 2021, 228, 120545.	8.8	22
119	Molecular insight into replacement dynamics of CO2 enhanced oil recovery in nanopores. Chemical Engineering Journal, 2022, 440, 135796.	12.7	22
120	Chequerboard effects on spurious currents in the lattice Boltzmann equation for two-phase flows. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2283-2291.	3.4	21
121	Molecular dynamics simulation to estimate minimum miscibility pressure for oil with pure and impure CO ₂ . Journal of Physics Communications, 2018, 2, 115028.	1.2	21
122	Discrete unified gas kinetic scheme for multiscale heat transfer with arbitrary temperature difference. International Journal of Heat and Mass Transfer, 2019, 134, 1127-1136.	4.8	21
123	Heat vortex in hydrodynamic phonon transport of two-dimensional materials. Scientific Reports, 2020, 10, 8272.	3.3	21
124	Numerical simulation of the flow around a porous covering square cylinder in a channel via lattice Boltzmann method. International Journal for Numerical Methods in Fluids, 2011, 65, 1217-1230.	1.6	19
125	Improved well-balanced free-energy lattice Boltzmann model for two-phase flow with high Reynolds number and large viscosity ratio. Physics of Fluids, 2022, 34, .	4.0	19
126	A unified incompressible lattice BGK model and its application to three-dimensional lid-driven cavity flow. Chinese Physics B, 2004, 13, 40-46.	1.3	18

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127	Lattice Boltzmann simulation of dense gas flows in microchannels. Physical Review E, 2007, 76, 016707.	2.1	18
128	Interface-capturing lattice Boltzmann equation model for two-phase flows. Physical Review E, 2015, 91, 013302.	2.1	18
129	Boundary scheme for linear heterogeneous surface reactions in the lattice Boltzmann method. Physical Review E, 2016, 94, 053307.	2.1	18
130	A hydrodynamically-consistent MRT lattice Boltzmann model on a 2D rectangular grid. Journal of Computational Physics, 2016, 326, 893-912.	3.8	18
131	An efficient unified iterative scheme for moving boundaries in lattice Boltzmann method. Computers and Fluids, 2017, 144, 34-43.	2.5	18
132	Drag correlation for micro spherical particles at finite Reynolds and Knudsen numbers by lattice Boltzmann simulations. Journal of Aerosol Science, 2017, 103, 105-116.	3.8	18
133	Unified implicit kinetic scheme for steady multiscale heat transfer based on the phonon Boltzmann transport equation. Physical Review E, 2017, 96, 063311.	2.1	18
134	Graded thermal conductivity in 2D and 3D homogeneous hotspot systems. Materials Today Physics, 2022, 22, 100605.	6.0	18
135	Molecular Insight into Microbehaviors of <i>n-</i> Decane and CO ₂ in Mineral Nanopores. Energy & Sub; Fuels, 2020, 34, 2925-2935.	5.1	17
136	Microscale boundary conditions of the lattice Boltzmann equation method for simulating microtube flows. Physical Review E, 2012, 86, 016712.	2.1	16
137	Simulation of fluid flows in the nanometer: kinetic approach and molecular dynamic simulation. International Journal of Computational Fluid Dynamics, 2006, 20, 361-367.	1.2	15
138	Lattice Boltzmann model for the one-dimensional nonlinear Dirac equation. Physical Review E, 2009, 79, 066704.	2.1	15
139	Designing correct fluid hydrodynamics on a rectangular grid using MRT lattice Boltzmann approach. Computers and Mathematics With Applications, 2016, 72, 288-310.	2.7	15
140	Designing a consistent implementation of the discrete unified gas-kinetic scheme for the simulation of three-dimensional compressible natural convection. Physics of Fluids, 2021, 33, .	4.0	15
141	Discrete effects on thermal boundary conditions for the thermal lattice Boltzmann method in simulating microscale gas flows. Europhysics Letters, 2008, 82, 44002.	2.0	14
142	Lattice Boltzmann simulation of separation phenomenon in a binary gaseous flow through a microchannel. Journal of Applied Physics, 2016, 120, .	2.5	14
143	Development of unsteady natural convection in a square cavity under large temperature difference. Physics of Fluids, 2021, 33, .	4.0	14
144	Simplified model and lattice Boltzmann algorithm for microscale electro-osmotic flows and heat transfer. International Journal of Heat and Mass Transfer, 2008, 51, 586-596.	4.8	13

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145	Numerical investigation of dilute aerosol particle transport and deposition in oscillating multi-cylinder obstructions. Advanced Powder Technology, 2018, 29, 2003-2018.	4.1	13
146	Laminar to turbulent flow transition inside the boundary layer adjacent to isothermal wall of natural convection flow in a cubical cavity. International Journal of Heat and Mass Transfer, 2021, 167, 120822.	4.8	13
147	Pore-scale study of miscible density-driven mixing flow in porous media. Physics of Fluids, 2021, 33, .	4.0	13
148	THERMAL LATTICE BGK SIMULATION OF TURBULENT NATURAL CONVECTION DUE TO INTERNAL HEAT GENERATION. International Journal of Modern Physics B, 2003, 17, 173-177.	2.0	12
149	Effects of Prandtl number on mixing process in miscible Rayleighâ€∓aylor instability. International Journal of Numerical Methods for Heat and Fluid Flow, 2013, 23, 176-188.	2.8	12
150	Local reactive boundary scheme for irregular geometries in lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2020, 150, 119314.	4.8	12
151	A fast synthetic iterative scheme for the stationary phonon Boltzmann transport equation. International Journal of Heat and Mass Transfer, 2021, 174, 121308.	4.8	12
152	Sub-nanometre pore adsorption of methane in kerogen. Chemical Engineering Journal, 2021, 426, 130984.	12.7	12
153	Numerical Study on the Tortuosity of Porous Media via Lattice Boltzmann Method. Communications in Computational Physics, 2009, , 354-366.	1.7	12
154	Lattice-Boltzmann simulation of particle-laden flow over a backward-facing step. Chinese Physics B, 2004, 13, 1657-1664.	1.3	11
155	Lattice Boltzmann study of flow and mixing characteristics of two-dimensional confined impinging streams with uniform and non-uniform inlet jets. Computers and Mathematics With Applications, 2013, 65, 638-647.	2.7	11
156	Lattice Boltzmann study of wettability alteration in the displacement of nanoparticle-filled binary fluids. Computers and Fluids, 2016, 124, 157-169.	2.5	11
157	Oscillatory Couette flow of rarefied binary gas mixtures. Physics of Fluids, 2021, 33, .	4.0	11
158	Lattice Boltzmann Simulation of Thermal Electro-Osmotic Flows in Micro/Nanochannels. Journal of Computational and Theoretical Nanoscience, 2008, 5, 236-246.	0.4	10
159	Numerical study on natural convection in a square enclosure containing a rectangular heated cylinder. Frontiers of Energy and Power Engineering in China, 2009, 3, 373-380.	0.4	10
160	Rectangular Lattice Boltzmann Equation for Gaseous Microscale Flow. Advances in Applied Mathematics and Mechanics, 2014, 8, 306-330.	1.2	10
161	Discrete unified gas kinetic scheme for all Knudsen number flows. IV. Strongly inhomogeneous fluids. Physical Review E, 2020, 101, 043303.	2.1	10
162	Heat vortices of ballistic and hydrodynamic phonon transport in two-dimensional materials. International Journal of Heat and Mass Transfer, 2021, 176, 121282.	4.8	10

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163	Discrete unified gas kinetic scheme for multiscale anisotropic radiative heat transfer. Advances in Aerodynamics, 2020, 2, .	2.5	10
164	Finite-difference-based multiple-relaxation-times lattice Boltzmann model for binary mixtures. Physical Review E, 2010, 81, 016706.	2.1	9
165	NUMERICAL STUDY OF BÉNARD CONVECTION WITH TEMPERATURE-DEPENDENT VISCOSITY IN A POROUS CAVITY VIA LATTICE BOLTZMANN METHOD. International Journal of Modern Physics C, 2010, 21, 1407-1419.	1.7	9
166	Lattice Boltzmann Study of Flow and Temperature Structures of Non-Isothermal Laminar Impinging Streams. Communications in Computational Physics, 2013, 13, 835-850.	1.7	9
167	Issues associated with Galilean invariance on a moving solid boundary in the lattice Boltzmann method. Physical Review E, 2017, 95, 013301.	2.1	9
168	Preconditioned multiple-relaxation-time lattice Boltzmann equation model for incompressible flow in porous media. Physical Review E, 2018, 98, .	2.1	9
169	Spontaneous shrinkage of droplet on a wetting surface in the phase-field model. Physical Review E, 2019, 100, 061302.	2.1	9
170	Validation of a two-dimensional gas-kinetic scheme for compressible natural convection on structured and unstructured meshes. International Journal of Thermal Sciences, 2019, 136, 299-315.	4.9	9
171	A lattice-Boltzmann scheme of the Navier–Stokes equation on a three-dimensional cuboid lattice. Computers and Mathematics With Applications, 2019, 78, 1053-1075.	2.7	9
172	A transient heat conduction phenomenon to distinguish the hydrodynamic and (quasi) ballistic phonon transport. International Journal of Heat and Mass Transfer, 2021, 181, 121847.	4.8	9
173	An exact non-equilibrium extrapolation scheme for pressure and velocity boundary conditions with large gradients in the lattice Boltzmann method. Computers and Fluids, 2021, 231, 105163.	2.5	9
174	A coupled lattice Boltzmann model for fluid flow and diffusion in a porous medium. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 014702.	0.5	9
175	Molecular insight into oil displacement by CO2 flooding on rough silica surface. Journal of Supercritical Fluids, 2022, 181, 105507.	3.2	9
176	Two new algorithms based on product system for discrete cosine transform. Signal Processing, 2001, 81, 1899-1908.	3.7	8
177	DOMAIN-DECOMPOSITION TECHNIQUE IN LATTICE BOLTZMANN METHOD. International Journal of Modern Physics B, 2003, 17, 129-133.	2.0	8
178	Multiple-relaxation-time lattice Boltzmann model for binary mixtures of nonideal fluids based on the Enskog kinetic theory. Science Bulletin, 2015, 60, 634-647.	9.0	8
179	Lattice Boltzmann model capable of mesoscopic vorticity computation. Physical Review E, 2017, 96, 053304.	2.1	8
180	GPU acceleration of an iterative scheme for gas-kinetic model equations with memory reduction techniques. Computer Physics Communications, 2019, 245, 106861.	7.5	8

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181	Discrete unified gas kinetic scheme for steady multiscale neutron transport. Journal of Computational Physics, 2020, 423, 109767.	3.8	8
182	Pore-scale study of non-ideal gas dynamics under tight confinement considering rarefaction, denseness and molecular interactions. Journal of Natural Gas Science and Engineering, 2021, 90, 103916.	4.4	8
183	Lattice-Boltzmann model for van der Waals fluids with liquid-vapor phase transition. International Journal of Heat and Mass Transfer, 2021, 179, 121741.	4.8	8
184	Thermally induced rarefied gas flow in a three-dimensional enclosure with square cross-section. Physical Review Fluids, 2017, 2, .	2.5	8
185	Simulation of three-dimensional forced compressible isotropic turbulence by a redesigned discrete unified gas kinetic scheme. Physics of Fluids, 2022, 34, 025106.	4.0	8
186	Molecular kinetic modelling of nanoscale slip flow using a continuum approach. Journal of Fluid Mechanics, 2022, 939, .	3.4	8
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