# Theory of the lattice Boltzmann method: Dispersion, dis invariance, and stability

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| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Lattice Boltzmann Method for 3-D Flows with Curved Boundary. Journal of Computational Physics, 2000, 161, 680-699. | 1.9 | 278 |
| 2 | Some recent results on discrete velocity models and ramifications for lattice Boltzmann equation. Computer Physics Communications, 2000, 129, 63-74. | 3.0 | 31 |
| 3 | Theory of the lattice Boltzmann method: Lattice Boltzmann models for nonideal gases. Physical Review E, 2000, 62, 4982-4996. | 0.8 | 307 |
| 4 | Momentum transfer of a Boltzmann-lattice fluid with boundaries. Physics of Fluids, 2001, 13, 3452-3459. | 1.6 | 991 |
| 5 | Lattice Boltzmann Equation on a Two-Dimensional Rectangular Grid. Journal of Computational Physics, 2001, 172, 704-717. | 1.9 | 105 |
| 6 | A Lattice BGK Scheme with General Propagation. Journal of Scientific Computing, 2001, 16, 569-585. | 1.1 | 52 |
| 7 | Bulk and shear viscosities in lattice Boltzmann equations. Physical Review E, 2001, 64, 031203. | 0.8 | 183 |
| 8 | Thirteen-velocity three-dimensional lattice Boltzmann model. Physical Review E, 2001, 63, 066702. | 0.8 | 78 |
| 9 | Nonhydrodynamic modes anda prioriconstruction of shallow water lattice Boltzmann equations. Physical Review E, 2002, 65, 036309. | 0.8 | 109 |
| 10 | STOCHASTIC AND HYDRODYNAMIC LATTICE GAS MODELS: MEAN-FIELD KINETIC APPROACHES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 227-259. | 0.7 | 4 |
| 11 | A lattice kinetic scheme for incompressible viscous flows with heat transfer. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 477-484. | 1.6 | 90 |
| 12 | Analysis of drag and virtual mass forces in bubbly suspensions using an implicit formulation of the lattice Boltzmann method. Journal of Fluid Mechanics, 2002, 452, 61-96. | 1.4 | 171 |
| 13 | Multipleâ€“relaxationâ€“time lattice Boltzmann models in three dimensions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 437-451. | 1.6 | 1,494 |
| 14 | Lattice Boltzmann model for binary mixtures. Physical Review E, 2002, 66, 035301. | 0.8 | 77 |
| 15 | Taylor-series expansion and least-squares-based lattice Boltzmann method: Two-dimensional formulation and its applications. Physical Review E, 2002, 65, 036708. | 0.8 | 64 |
| 16 | A free-surface lattice Boltzmann method for modelling the filling of expanding cavities by Bingham fluids. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 453-466. | 1.6 | 59 |
| 17 | Single relaxation time model for entropic lattice Boltzmann methods. Physical Review E, 2002, 65, 056312. | 0.8 | 106 |
| 18 | Lattice Boltzmann methods for two-phase flow modeling. Annals of Nuclear Energy, 2002, 29, 1421-1453. | 0.9 | 54 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A Multi-Speed Compressible Lattice-Boltzmann Model. Journal of Statistical Physics, 2002, 107, 385-400. | 0.5 | 18 |
| 20 | Evaluation of PowerFLOW for Aerodynamic Applications. Journal of Statistical Physics, 2002, 107, 423-478. | 0.5 | 52 |
| 21 | Extension of the Lattice-Boltzmann Method for Direct Simulation of Suspended Particles Near Contact. Journal of Statistical Physics, 2003, 112, 685-708. | 0.5 | 106 |
| 22 | Lattice Boltzmann method for moving boundaries. Journal of Computational Physics, 2003, 184, 406-421. | 1.9 | 452 |
| 23 | Lattice Boltzmann model for free-surface flow and its application to filling process in casting. Journal of Computational Physics, 2003, 185, 61-99. | 1.9 | 110 |
| 24 | Incompressible limits of lattice Boltzmann equations using multiple relaxation times. Journal of Computational Physics, 2003, 190, 351-370. | 1.9 | 143 |
| 25 | The lattice Boltzmann equation method: theoretical interpretation, numerics and implications. International Journal of Multiphase Flow, 2003, 29, 117-169. | 1.6 | 342 |
| 26 | Viscous flow computations with the method of lattice Boltzmann equation. Progress in Aerospace Sciences, 2003, 39, 329-367. | 6.3 | 746 |
| 27 | Lattice Boltzmann Methods: High Performance Computing and Engineering Applications. , 2003, , 3-12. | | 0 |
| 28 | HYBRID FINITE-DIFFERENCE THERMAL LATTICE BOLTZMANN EQUATION. International Journal of Modern Physics B, 2003, 17, 41-47. | 1.0 | 127 |
| 29 | Multireflection boundary conditions for lattice Boltzmann models. Physical Review E, 2003, 68, 066614. | 0.8 | 418 |
| 30 | LARGE-EDDY SIMULATIONS WITH A MULTIPLE-RELAXATION-TIME LBE MODEL. International Journal of Modern Physics B, 2003, 17, 33-39. | 1.0 | 156 |
| 31 | Three-dimensional lattice-Boltzmann simulations of critical spinodal decomposition in binary immiscible fluids. Physical Review E, 2003, 67, 046304. | 0.8 | 41 |
| 32 | Theory of the lattice Boltzmann method: Three-dimensional model for linear viscoelastic fluids. Physical Review E, 2003, 67, 021203. | 0.8 | 46 |
| 33 | Nonexistence ofHtheorems for the athermal lattice Boltzmann models with polynomial equilibria. Physical Review E, 2003, 67, 051105. | 0.8 | 28 |
| 34 | Theory of the lattice Boltzmann method: Acoustic and thermal properties in two and three dimensions. Physical Review E, 2003, 68, 036706. | 0.8 | 357 |
| 35 | Theory of the lattice Boltzmann method: Two-fluid model for binary mixtures. Physical Review E, 2003, 67, 036302. | 0.8 | 165 |
| 36 | Minimal entropic kinetic models for hydrodynamics. Europhysics Letters, 2003, 63, 798-804. | 0.7 | 242 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Lattice kinetic scheme for the incompressible viscous thermal flows on arbitrary meshes. Physical Review E, 2004, 69, 016703. | 0.8 | 19 |
| 38 | An evaluation of lattice Boltzmann equation methods for simulating flow through porous media. Developments in Water Science, 2004, , 95-106. | 0.1 | 3 |
| 39 | A lattice Boltzmann study of non-hydrodynamic effects in shell models of turbulence. Physica D: Nonlinear Phenomena, 2004, 197, 303-312. | 1.3 | 1 |
| 40 | Investigation of Stability and Hydrodynamics of Different Lattice Boltzmann Models. Journal of Statistical Physics, 2004, 117, 665-680. | 0.5 | 36 |
| 41 | Simulation of lid-driven cavity flows by parallel lattice Boltzmann method using multi-relaxation-time scheme. International Journal for Numerical Methods in Fluids, 2004, 46, 921-937. | 0.9 | 45 |
| 42 | Hybrid lattice-Boltzmann finite-difference simulation of convective flows. Computers and Fluids, 2004, 33, 623-641. | 1.3 | 114 |
| 43 | NEW LATTICE KINETIC SCHEMES FOR INCOMPRESSIBLE VISCOUS FLOWS. International Journal of Modern Physics C, 2004, 15, 1197-1213. | 0.8 | 5 |
| 44 | Lattice-Boltzmann simulation of two-phase flow in porous media. Water Resources Research, 2004, 40, . | 1.7 | 329 |
| 45 | Viscous coupling effects for two-phase flow in porous media. Developments in Water Science, 2004, , 247-256. | 0.1 | 4 |
| 46 | Asymptotic analysis of the lattice Boltzmann equation. Journal of Computational Physics, 2005, 210, 676-704. | 1.9 | 304 |
| 47 | Equilibrium-type and link-type lattice Boltzmann models for generic advection and anisotropic-dispersion equation. Advances in Water Resources, 2005, 28, 1171-1195. | 1.7 | 367 |
| 48 | Generic boundary conditions for lattice Boltzmann models and their application to advection and anisotropic dispersion equations. Advances in Water Resources, 2005, 28, 1196-1216. | 1.7 | 149 |
| 49 | Nonexistence of H Theorem for Some Lattice Boltzmann Models. Journal of Statistical Physics, 2005, 121, 91-103. | 0.5 | 20 |
| 50 | Viscous coupling based lattice Boltzmann model for binary mixtures. Physics of Fluids, 2005, 17, 067102. | 1.6 | 40 |
| 51 | Lattice Boltzmann simulations of decaying homogeneous isotropic turbulence. Physical Review E, 2005, 71, 016708. | 0.8 | 87 |
| 52 | Scientific Grid Computing: The First Generation. Computing in Science and Engineering, 2005, 7, 24-32. | 1.2 | 17 |
| 53 | Near-field turbulent simulations of rectangular jets using lattice Boltzmann method. Physics of Fluids, 2005, 17, 125106. | 1.6 | 50 |
| 54 | A LATTICE BOLTZMANN APPROACH FOR IMMISCIBLE FLUIDS WITH VERY DIFFERENT VISCOSITIES. International Journal of Modern Physics C, 2005, 16, 1409-1435. | 0.8 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Computation of Multiphase Flows With Lattice Boltzmann Methods. , 2005, , 403. | | 4 |
| 56 | Multiple-relaxation-time lattice-Boltzmann model for multiphase flow. Physical Review E, 2005, 71, 036701. | 0.8 | 226 |
| 57 | SIMULATIONS OF LIQUID BREAK UP WITH AN AXISYMMETRIC, MULTIPLE RELAXATION TIME, INDEX-FUNCTION LATTICE BOLTZMANN MODEL. International Journal of Modern Physics C, 2005, 16, 1671-1692. | 0.8 | 26 |
| 58 | Strain hardening in liquid-particle suspensions. Physical Review E, 2005, 72, 061402. | 0.8 | 8 |
| 59 | Simulations of binary drop collisions with a multiple-relaxation-time lattice-Boltzmann model. Physics of Fluids, 2005, 17, 122105. | 1.6 | 79 |
| 60 | Lattice Boltzmann method at finite Knudsen numbers. Europhysics Letters, 2005, 69, 549-555. | 0.7 | 127 |
| 61 | Dynamic regimes of fluids simulated by multiparticle-collision dynamics. Physical Review E, 2005, 72, 016701. | 0.8 | 142 |
| 62 | Newtonian fluid meets an elastic solid: Coupling lattice Boltzmann and lattice-spring models. Physical Review E, 2005, 71, 056707. | 0.8 | 80 |
| 63 | Lattice Boltzmann methods for binary mixtures with different molecular weights. Physical Review E, 2005, 71, 046704. | 0.8 | 63 |
| 64 | Lattice-Boltzmann Models of Xe+ Flow Through Ion Thruster Optics. , 2005, , . | | 0 |
| 65 | A Finite-Volume-Based Lattice-Boltzmann Method to Simulate Buoyant Flow. , 2005, , . | | 0 |
| 66 | Pore-scale investigation of viscous coupling effects for two-phase flow in porous media. Physical Review E, 2005, 72, 026705. | 0.8 | 177 |
| 67 | Direct and Large-Eddy Simulation of Decaying and Forced Isotropic Turbulence Using Lattice Boltzmann Method. , 2006, , . | | 0 |
| 68 | Lattice Boltzmann Models of Xe, Xe+, Xe++, e- Flow Through Ion Thruster Optics. , 2006, , . | | 0 |
| 69 | A Stability Notion for Lattice Boltzmann Equations. SIAM Journal of Scientific Computing, 2006, 27, 2098-2111. | 1.3 | 30 |
| 70 | Calculation of sound generation and radiation from instationary flows. Computers and Fluids, 2006, 35, 986-993. | 1.3 | 23 |
| 71 | Simulation of flow past a rotating circular cylinder near a plane wall. International Journal of Computational Fluid Dynamics, 2006, 20, 391-400. | 0.5 | 9 |
| 72 | Mesoscopic modelling of heterogeneous boundary conditions for microchannel flows. Journal of Fluid Mechanics, 2006, 548, 257. | 1.4 | 68 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Simulating high Reynolds number flow in two-dimensional lid-driven cavity by multi-relaxation-time lattice Boltzmann method. Chinese Physics B, 2006, 15, 1855-1863. | 1.3 | 43 |
| 74 | Lattice Boltzmann versus Molecular Dynamics Simulation of Nanoscale Hydrodynamic Flows. Physical Review Letters, 2006, 96, 224503. | 2.9 | 76 |
| 75 | On the use of lattice Fokker-Planck models for hydrodynamics. Europhysics Letters, 2006, 75, 399-405. | 0.7 | 3 |
| 76 | Simulation of two-dimensional decaying turbulence using the â€œincompressibleâ€•extensions of the lattice Boltzmann method. Computers and Fluids, 2006, 35, 280-303. | 1.3 | 13 |
| 77 | Extension of a hybrid thermal LBE scheme for large-eddy simulations of turbulent convective flows. Computers and Fluids, 2006, 35, 863-871. | 1.3 | 57 |
| 78 | An evaluation of lattice Boltzmann schemes for porous medium flow simulation. Computers and Fluids, 2006, 35, 898-909. | 1.3 | 617 |
| 79 | LES of turbulent square jet flow using an MRT lattice Boltzmann model. Computers and Fluids, 2006, 35, 957-965. | 1.3 | 159 |
| 80 | Lattice Boltzmann simulation of lid-driven flow in deep cavities. Computers and Fluids, 2006, 35, 1116-1125. | 1.3 | 69 |
| 81 | Optimization and stabilization of LBM free surface flow simulations using adaptive parameterization. Computers and Fluids, 2006, 35, 934-939. | 1.3 | 20 |
| 82 | Finite Boltzmann schemes. Computers and Fluids, 2006, 35, 849-854. | 1.3 | 23 |
| 83 | Consistent initial conditions for lattice Boltzmann simulations. Computers and Fluids, 2006, 35, 855-862. | 1.3 | 125 |
| 84 | Lattice Boltzmann methods for viscous fluid flows and for two-phase fluid flows. Fluid Dynamics Research, 2006, 38, 641-659. | 0.6 | 52 |
| 85 | Lattice-Boltzmann modelling of natural convection in an inclined square enclosure with partitions attached to its cold wall. International Journal of Heat and Fluid Flow, 2006, 27, 456-465. | 1.1 | 60 |
| 86 | A momentum exchange-based immersed boundary-lattice Boltzmann method for simulating incompressible viscous flows. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 354, 173-182. | 0.9 | 334 |
| 87 | Multi-relaxation-time lattice Boltzmann model for incompressible flow. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 359, 564-572. | 0.9 | 86 |
| 88 | Simulation of the hydrodynamic drag of aggregated particles. Journal of Colloid and Interface Science, 2006, 301, 155-167. | 5.0 | 58 |
| 89 | Relaxation approximations and kinetic models of fluid turbulence. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 1-5. | 1.2 | 8 |
| 90 | Lattice Boltzmann equation simulation of rectangular jet instability and axis-switching. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 151-157. | 1.2 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | 3D Stochastic Modelling of Heterogeneous Porous Media â€“ Applications to Reservoir Rocks. Transport in Porous Media, 2006, 65, 443-467. | 1.2 | 194 |
| 92 | Adjoint lattice Boltzmann equation for parameter identification. Computers and Fluids, 2006, 35, 805-813. | 1.3 | 38 |
| 93 | Benchmark computations based on lattice-Boltzmann, finite element and finite volume methods for laminar flows. Computers and Fluids, 2006, 35, 888-897. | 1.3 | 155 |
| 94 | An adaptive scheme using hierarchical grids for lattice Boltzmann multi-phase flow simulations. Computers and Fluids, 2006, 35, 820-830. | 1.3 | 159 |
| 95 | Variably saturated flow described with the anisotropic Lattice Boltzmann methods. Computers and Fluids, 2006, 35, 831-848. | 1.3 | 72 |
| 96 | Lattice Boltzmann method with regularized pre-collision distribution functions. Mathematics and Computers in Simulation, 2006, 72, 165-168. | 2.4 | 339 |
| 97 | Application of multi-block approach in the immersed boundaryâ€“lattice Boltzmann method for viscous fluid flows. Journal of Computational Physics, 2006, 218, 460-478. | 1.9 | 107 |
| 98 | Three-dimensional wake interactions for two side-by-side cylinders in a cross flow. International Journal of Computational Fluid Dynamics, 2006, 20, 379-389. | 0.5 | 7 |
| 99 | Simulation of Flow Past a Square Cylinder by Parallel Lattice Boltzmann Method using Multi-Relaxation-Time Scheme. Journal of Mechanics, 2006, 22, 35-42. | 0.7 | 1 |
| 100 | Galilean invariant lattice Boltzmann scheme for natural convection on square and rectangular lattices. Physical Review E, 2006, 74, 026705. | 0.8 | 48 |
| 101 | Rheology of particle suspensions with low to moderate fluid inertia at finite particle inertia. Physics of Fluids, 2006, 18, 083303. | 1.6 | 28 |
| 102 | Semi-implicit-linearized multiple-relaxation-time formulation of lattice Boltzmann schemes for mixture modeling. Physical Review E, 2006, 73, 056705. | 0.8 | 49 |
| 103 | One-Step Aeroacoustics Simulation Using Lattice Boltzmann Method. AIAA Journal, 2006, 44, 78-89. | 1.5 | 66 |
| 104 | Lattice-Boltzmann simulations in reconstructed parametrized porous media. International Journal of Computational Fluid Dynamics, 2006, 20, 369-377. | 0.5 | 49 |
| 105 | Lattice Boltzmann simulations of the acoustic radiation from waveguides. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 397-408. | 0.7 | 17 |
| 106 | Characteristics of two-dimensional flow around a rotating circular cylinder near a plane wall. Physics of Fluids, 2007, 19, 063601. | 1.6 | 45 |
| 107 | SIMULATING TIME HARMONIC FLOWS WITH THE REGULARIZED L-BGK METHOD. International Journal of Modern Physics C, 2007, 18, 661-666. | 0.8 | 9 |
| 108 | Crown behavior in drop impact on wet walls. Physics of Fluids, 2007, 19, 052103. | 1.6 | 78 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Simulating time harmonic flows with the lattice Boltzmann method. Physical Review E, 2007, 75, 036709. | 0.8 | 8 |
| 110 | Interpolated boundary condition for lattice Boltzmann simulations of flows in narrow gaps. Physical Review E, 2007, 75, 066705. | 0.8 | 130 |
| 111 | Computational steering on distributed systems: Indoor comfort simulations as a case study of interactive CFD on supercomputers. International Journal of Parallel, Emergent and Distributed Systems, 2007, 22, 275-291. | 0.7 | 21 |
| 112 | FROM THE BOLTZMANN TO THE LATTICE-BOLTZMANN EQUATION: BEYOND BGK COLLISION MODELS. International Journal of Modern Physics C, 2007, 18, 556-565. | 0.8 | 16 |
| 113 | Lattice Boltzmann Method in Saltwater Intrusion Modeling. , 2007, , . | | 0 |
| 114 | Lattice Boltzman Method Simulation of Aeroacoustics and Nonreflecting Boundary Conditions. AIAA Journal, 2007, 45, 1703-1712. | 1.5 | 51 |
| 115 | Perception of Compliant Environments through a Visual-Haptic Human System Interface. , 2007, , . | | 2 |
| 116 | Applying Modern Soft- and Hardware Technologies for Computational Steering Approaches in Computational Fluid Dynamics. , 2007, , . | | 14 |
| 117 | PROPERTIES OF THE CASCADED LATTICE BOLTZMANN AUTOMATON. International Journal of Modern Physics C, 2007, 18, 455-462. | 0.8 | 32 |
| 118 | Alternative method to construct equilibrium distribution functions in lattice-Boltzmann method simulation of inviscid compressible flows at high Mach number. Physical Review E, 2007, 75, 036706. | 0.8 | 102 |
| 119 | Lattice Boltzmann simulations of two-phase flow with high density ratio in axially symmetric geometry. Physical Review E, 2007, 75, 026701. | 0.8 | 55 |
| 120 | A generalized periodic boundary condition for lattice Boltzmann method simulation of a pressure driven flow in a periodic geometry. Physics of Fluids, 2007, 19, . | 1.6 | 47 |
| 121 | Coupled lattice Boltzmann method and discrete element modelling of particle transport in turbulent fluid flows: Computational issues. International Journal for Numerical Methods in Engineering, 2007, 72, 1111-1134. | 1.5 | 195 |
| 122 | Particle Monte Carlo and lattice-Boltzmann methods for simulations of gasâ€“particle flows. Computers and Fluids, 2007, 36, 407-422. | 1.3 | 44 |
| 123 | Analysis of radiationâ€“natural convection in a divided enclosure using the lattice Boltzmann method. Computers and Fluids, 2007, 36, 423-434. | 1.3 | 32 |
| 124 | A pressure-evolution-based multi-relaxation-time high-density-ratio two-phase lattice-Boltzmann model. Computers and Fluids, 2007, 36, 1149-1158. | 1.3 | 37 |
| 125 | Lattice Boltzmann method applied to the laminar natural convection in an enclosure with a heat-generating cylinder conducting body. International Journal of Thermal Sciences, 2007, 46, 38-47. | 2.6 | 89 |
| 126 | Lattice Boltzmann and analytical modeling of flow processes in anisotropic and heterogeneous stratified aquifers. Advances in Water Resources, 2007, 30, 2202-2234. | 1.7 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Lattice Boltzmann dynamic simulation of a mechanical heart valve device. Mathematics and Computers in Simulation, 2007, 75, 1-14. | 2.4 | 22 |
| 128 | Application and validation of the lattice Boltzmann method for modelling flow-related clotting. Journal of Biomechanics, 2007, 40, 3023-3028. | 0.9 | 41 |
| 129 | A novel immersed boundary velocity correctionâ€“lattice Boltzmann method and its application to simulate flow past a circular cylinder. Journal of Computational Physics, 2007, 226, 1607-1622. | 1.9 | 167 |
| 130 | Optimization Strategies for the Entropic Lattice Boltzmann Method. Journal of Scientific Computing, 2007, 30, 369-387. | 1.1 | 18 |
| 131 | Lattice Boltzmann modeling with discontinuous collision components: Hydrodynamic and Advection-Diffusion Equations. Journal of Statistical Physics, 2007, 126, 157-206. | 0.5 | 74 |
| 132 | Three-dimensional multi-relaxation time (MRT) lattice-Boltzmann models for multiphase flow. Journal of Computational Physics, 2007, 224, 539-559. | 1.9 | 212 |
| 133 | A lattice Boltzmann front-tracking method for interface dynamics with surface tension in two dimensions. Journal of Computational Physics, 2007, 226, 1367-1384. | 1.9 | 71 |
| 134 | Lattice Boltzmann simulation of lid-driven swirling flow in confined cylindrical cavity. Computers and Fluids, 2007, 36, 1163-1173. | 1.3 | 33 |
| 135 | Acceleration of lattice Boltzmann models through state extrapolation: a reactionâ€“diffusion example. Applied Numerical Mathematics, 2008, 58, 1742-1757. | 1.2 | 3 |
| 136 | Asymptotic analysis of multiple-relaxation-time lattice Boltzmann schemes for mixture modeling. Computers and Mathematics With Applications, 2008, 55, 1392-1407. | 1.4 | 22 |
| 137 | Simulating fluid flow over sinusoidal surfaces using the lattice Boltzmann method. Computers and Mathematics With Applications, 2008, 55, 1365-1376. | 1.4 | 17 |
| 138 | Mesoscopic modeling of flow and dispersion phenomena in fractured solids. Computers and Mathematics With Applications, 2008, 55, 1525-1540. | 1.4 | 11 |
| 139 | A consistent lattice Boltzmann equation with baroclinic coupling for mixtures. Journal of Computational Physics, 2008, 227, 3878-3895. | 1.9 | 36 |
| 140 | Numerical study of natural convection in a cavity of high aspect ratio by using the lattice Boltzmann method. International Journal for Numerical Methods in Engineering, 2008, 73, 1727-1738. | 1.5 | 5 |
| 141 | A comparative study of the LBE and GKS methods for 2D near incompressible laminar flows. Journal of Computational Physics, 2008, 227, 4955-4976. | 1.9 | 120 |
| 142 | Lattice-Boltzmann method for yield-stress liquids. Journal of Non-Newtonian Fluid Mechanics, 2008, 155, 95-100. | 1.0 | 63 |
| 143 | Stokes eigenmodes in cubic domain: primitive variable and Lattice Boltzmann formulations. Applied Numerical Mathematics, 2008, 58, 935-945. | 1.2 | 12 |
| 144 | Bifurcation phenomenon in the wake of a 3-D cylinder. Computers and Fluids, 2008, 37, 724-732. | 1.3 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Convergence of lattice Boltzmann methods for Stokes flows in periodic and bounded domains. Computers and Mathematics With Applications, 2008, 55, 1481-1491. | 1.4 | 16 |
| 146 | Equivalent partial differential equations of a lattice Boltzmann scheme. Computers and Mathematics With Applications, 2008, 55, 1441-1449. | 1.4 | 78 |
| 147 | A new scheme for source term in LBGK model for convectionâ€“diffusion equation. Computers and Mathematics With Applications, 2008, 55, 1568-1575. | 1.4 | 69 |
| 148 | Parallel simulation of particle suspensions with the lattice Boltzmann method. Computers and Mathematics With Applications, 2008, 55, 1585-1593. | 1.4 | 40 |
| 149 | Impact of geometrical properties on permeability and fluid phase distribution in porous media. Advances in Water Resources, 2008, 31, 1188-1204. | 1.7 | 53 |
| 150 | Prediction of capillary hysteresis in a porous material using lattice-Boltzmann methods and comparison to experimental data and a morphological pore network model. Advances in Water Resources, 2008, 31, 1151-1173. | 1.7 | 164 |
| 151 | Lattice Boltzmann method with two relaxation times for advectionâ€“diffusion equation: Third order analysis and stability analysis. Advances in Water Resources, 2008, 31, 1113-1126. | 1.7 | 82 |
| 152 | A coupled lattice Boltzmann model for advection and anisotropic dispersion problem in shallow water. Advances in Water Resources, 2008, 31, 1719-1730. | 1.7 | 47 |
| 153 | Notable physical anomalies manifested in non-Fourier heat conduction under the dual-phase-lag model. International Journal of Heat and Mass Transfer, 2008, 51, 1713-1727. | 2.5 | 68 |
| 154 | Lattice Boltzmann equation with multiple effective relaxation times for gaseous microscale flow. Physical Review E, 2008, 77, 036707. | 0.8 | 161 |
| 155 | TeraFLOP computing on a desktop PC with GPUs for 3D CFD. International Journal of Computational Fluid Dynamics, 2008, 22, 443-456. | 0.5 | 231 |
| 156 | Numerical validation of a consistent axisymmetric lattice Boltzmann model. Physical Review E, 2008, 77, 026703. | 0.8 | 48 |
| 157 | A Comparative Study of the LBE and GKS Methods for DNS of Decaying Turbulence. , 2008, , . | | 2 |
| 158 | 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. | 0.5 | 200 |
| 159 | Lattice Boltzmann simulation of surface radiation and natural convection in a square cavity with an inner cylinder. Journal Physics D: Applied Physics, 2008, 41, 115502. | 1.3 | 39 |
| 160 | MULTI-RELAXATION TIME LATTICE BOLTZMANN MODEL FOR MULTIPHASE FLOWS. International Journal of Modern Physics C, 2008, 19, 875-902. | 0.8 | 32 |
| 161 | Singular forces and pointlike colloids in lattice Boltzmann hydrodynamics. Physical Review E, 2008, 77, 026709. | 0.8 | 49 |
| 162 | FREE-SURFACE LATTICE BOLTZMANN MODELING IN SINGLE PHASE FLOWS. Series on Quality, Reliability and Engineering Statistics, 2008, , 163-219. | 0.2 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Direct simulation of viscous flow in a wavy pipe using the lattice Boltzmann approach. International Journal of Engineering Systems Modelling and Simulation, 2008, 1, 20. | 0.2 | 2 |
| 164 | COUPLED DOUBLE-DISTRIBUTION-FUNCTION LATTICE BOLTZMANN MODEL WITH AN ADJUSTABLE BULK VISCOSITY. International Journal of Modern Physics C, 2008, 19, 1919-1938. | 0.8 | 3 |
| 165 | Modelling microscale flow and colloid transport in saturated porous media. International Journal of Computational Fluid Dynamics, 2008, 22, 493-505. | 0.5 | 11 |
| 167 | On the application of the lattice Boltzmann method to the investigation of glottal flow. Journal of the Acoustical Society of America, 2008, 124, 523-534. | 0.5 | 7 |
| 168 | Multiple-relaxation-time model for the correct thermohydrodynamic equations. Physical Review E, 2008, 78, 026705. | 0.8 | 42 |
| 169 | Multiple-relaxation-time lattice Boltzmann scheme for homogeneous mixture flows with external force. Physical Review E, 2008, 77, 056706. | 0.8 | 28 |
| 170 | Theory of the lattice Boltzmann equation: Symmetry properties of discrete velocity sets. Physical Review E, 2008, 77, 036709. | 0.8 | 28 |
| 171 | Lattice-Boltzmann simulation of two-dimensional flow over two vibrating side-by-side circular cylinders. Physical Review E, 2008, 78, 046314. | 0.8 | 17 |
| 172 | Comment on â€œAlternative approach to the solution of the dispersion relation for a generalized lattice Boltzmann equationâ€• Physical Review E, 2008, 78, 068701, discussion 068702. | 0.8 | 0 |
| 173 | Alternative approach to the solution of the dispersion relation for a generalized lattice Boltzmann equation. Physical Review E, 2008, 77, 026702. | 0.8 | 5 |
| 174 | Characteristic nonreflecting boundary conditions for open boundaries in lattice Boltzmann methods. Physical Review E, 2008, 78, 046707. | 0.8 | 49 |
| 175 | Analytic solution for a higher-order lattice Boltzmann method: Slip velocity and Knudsen layer. Physical Review E, 2008, 78, 016702. | 0.8 | 25 |
| 176 | Reply to â€œComment on â€˜Alternative approach to the solution of the dispersion relation for a generalized lattice Boltzmann equationâ€™â€‰â€• Physical Review E, 2008, 78, . | 0.8 | 0 |
| 177 | Lattice Boltzmann equation linear stability analysis: Thermal and athermal models. Physical Review E, 2008, 77, 026707. | 0.8 | 78 |
| 178 | Duality in matrix lattice Boltzmann models. Physical Review E, 2008, 78, 066701. | 0.8 | 33 |
| 179 | Consistent lattice Boltzmann schemes for the Brinkman model of porous flow and infinite Chapman-Enskog expansion. Physical Review E, 2008, 77, 066704. | 0.8 | 63 |
| 180 | Slip velocity and Knudsen layer in the lattice Boltzmann method for microscale flows. Physical Review E, 2008, 77, 026704. | 0.8 | 52 |
| 181 | Generalized local equilibrium in the cascaded lattice Boltzmann method. Physical Review E, 2008, 78, 016701. | 0.8 | 76 |

| # | Article | IF | Citations |
|---|---|---|---|
| 182 | Acceleration of steady-state lattice Boltzmann simulations for exterior flows. Physical Review E, 2008, 78, 056701. | 0.8 | 6 |
| 183 | A comparative study of immersed-boundary and interpolated bounce-back methods in LBE. Progress in Computational Fluid Dynamics, 2008, 8, 156. | 0.1 | 72 |
| 184 | Preconditioned Navier-Stokes schemes from the generalised lattice Boltzmann equation. Progress in Computational Fluid Dynamics, 2008, 8, 189. | 0.1 | 12 |
| 185 | On lattice Boltzmann scheme, finite volumes and boundary conditions. Progress in Computational Fluid Dynamics, 2008, 8, 11. | 0.1 | 15 |
| 186 | Collection Efficiency for Filters with Staggered Parallel Y and Triple Y Fibers: A Numerical Study. Journal of Engineered Fibers and Fabrics, 2009, 4, 155892500900400. | 0.5 | 1 |
| 187 | Incorporating forcing terms in cascaded lattice Boltzmann approach by method of central moments. Physical Review E, 2009, 80, 036702. | 0.8 | 93 |
| 188 | Generalized Maxwell state and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>H</mml:mi></mml:math>theorem for computing fluid flows using the lattice Boltzmann method. Physical Review E, 2009, 79, 036703. | 0.8 | 26 |
| 189 | Accelerated algorithm for computing the motion of solid particles suspended in fluid. Physical Review E, 2009, 80, 025701. | 0.8 | 4 |
| 190 | Lattice Boltzmann model for exterior flows with an annealing preconditioning method. Physical Review E, 2009, 79, 066701. | 0.8 | 3 |
| 191 | Lattice Boltzmann equation for microscale gas flows of binary mixtures. Physical Review E, 2009, 79, 026702. | 0.8 | 28 |
| 192 | Lattice Boltzmann model for the one-dimensional nonlinear Dirac equation. Physical Review E, 2009, 79, 066704. | 0.8 | 15 |
| 193 | COMPARING ENTROPIC AND MULTIPLE RELAXATION TIMES LATTICE BOLTZMANN METHODS FOR BLOOD FLOW SIMULATIONS. International Journal of Modern Physics C, 2009, 20, 721-733. | 0.8 | 2 |
| 194 | SIMULATION OF AN AXISYMMETRIC RISING BUBBLE BY A MULTIPLE RELAXATION TIME LATTICE BOLTZMANN METHOD. International Journal of Modern Physics B, 2009, 23, 4907-4932. | 1.0 | 15 |
| 195 | Moment equations for magnetohydrodynamics. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P06003. | 0.9 | 15 |
| 196 | MULTISCALE MODELING OF MULTIPHASE FLOW WITH COMPLEX INTERACTIONS. Journal of Multiscale Modeling, 2009, 01, 125-156. | 1.0 | 29 |
| 197 | Multipleâ€relaxationâ€time lattice Boltzmann computation of channel flow past a square cylinder with an upstream control biâ€partition. International Journal for Numerical Methods in Fluids, 2010, 64, 591-608. | 0.9 | 11 |
| 198 | Investigation of deformation and breakup of a moving droplet by the method of lattice Boltzmann equations. International Journal for Numerical Methods in Fluids, 2010, 64, 827-849. | 0.9 | 7 |
| 199 | Fixedâ€grid fluidâ€“structure interaction in two dimensions based on a partitioned Lattice Boltzmann and pâ€FEM approach. International Journal for Numerical Methods in Engineering, 2009, 79, 817-845. | 1.5 | 60 |

| # | Article | IF | Citations |
|---|---|---|---|
| 200 | Stable free surface flows with the lattice Boltzmann method on adaptively coarsened grids. Computing and Visualization in Science, 2009, 12, 247-263. | 1.2 | 62 |
| 201 | Magnetic Field Effects on Axis-Switching and Instabilities in Rectangular Plasma Jets. Flow, Turbulence and Combustion, 2009, 82, 375-390. | 1.4 | 3 |
| 202 | Pressure boundary condition for the lattice Boltzmann method. Computers and Mathematics With Applications, 2009, 58, 922-929. | 1.4 | 12 |
| 203 | Dedication to Pierre Lallemand on the occasion of his retirement. Computers and Mathematics With Applications, 2009, 58, 821-822. | 1.4 | 0 |
| 204 | An Onsager-like relation for the lattice Boltzmann method. Computers and Mathematics With Applications, 2009, 58, 862-866. | 1.4 | 9 |
| 205 | Lattice Boltzmann modeling of microchannel flow in slip flow regime. Journal of Computational Physics, 2009, 228, 147-157. | 1.9 | 177 |
| 206 | Lattice Boltzmann simulations of 2D laminar flows past two tandem cylinders. Journal of Computational Physics, 2009, 228, 983-999. | 1.9 | 65 |
| 207 | Convergence of lattice Boltzmann methods for Navierâ€“Stokes flows in periodic and bounded domains. Numerische Mathematik, 2009, 112, 65-87. | 0.9 | 35 |
| 208 | Convective heat transfer over two blocks arbitrary located in a 2D plane channel using a hybrid lattice Boltzmann-finite difference method. Heat and Mass Transfer, 2009, 45, 1373-1381. | 1.2 | 10 |
| 209 | A Latticeâ€Boltzmann model to simulate the growth of dendritic and eutectic microstructures under the influence of fluid flow. Physica Status Solidi (B): Basic Research, 2009, 246, 1197-1205. | 0.7 | 19 |
| 210 | Dynamic subgrid scale modeling of turbulent flows using lattice-Boltzmann method. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 2640-2658. | 1.2 | 77 |
| 211 | Non-negativity and stability analyses of lattice Boltzmann method for advectionâ€“diffusion equation. Journal of Computational Physics, 2009, 228, 236-256. | 1.9 | 60 |
| 212 | Steady state convergence acceleration of the generalized lattice Boltzmann equation with forcing term through preconditioning. Journal of Computational Physics, 2009, 228, 746-769. | 1.9 | 25 |
| 213 | Comparison between lattice Boltzmann method and Navierâ€“Stokes high order schemes for computational aeroacoustics. Journal of Computational Physics, 2009, 228, 1056-1070. | 1.9 | 261 |
| 214 | Lattice Boltzmann method with selective viscosity filter. Journal of Computational Physics, 2009, 228, 4478-4490. | 1.9 | 88 |
| 215 | Optimal preconditioning of lattice Boltzmann methods. Journal of Computational Physics, 2009, 228, 6479-6495. | 1.9 | 16 |
| 216 | Sound reflection at the open end of axisymmetric ducts issuing a subsonic mean flow: A numerical study. Journal of Sound and Vibration, 2009, 327, 507-528. | 2.1 | 25 |
| 217 | Adjoint parameter sensitivity analysis for the hydrodynamic lattice Boltzmann method with applications to design optimization. Computers and Fluids, 2009, 38, 910-923. | 1.3 | 40 |

| # | Article | IF | Citations |
|---|---|---|---|
| 218 | Viscosity independent numerical errors for Lattice Boltzmann models: From recurrence equations to â€œmagicâ€•collision numbers. Computers and Mathematics With Applications, 2009, 58, 823-840. | 1.4 | 163 |
| 219 | Second order interpolation of the flow field in the lattice Boltzmann method. Computers and Mathematics With Applications, 2009, 58, 898-902. | 1.4 | 29 |
| 220 | Towards perfectly matching layers for lattice Boltzmann equation. Computers and Mathematics With Applications, 2009, 58, 903-913. | 1.4 | 11 |
| 221 | Analysis of open boundary effects in unsteady lattice Boltzmann simulations. Computers and Mathematics With Applications, 2009, 58, 914-921. | 1.4 | 25 |
| 222 | Embedding sharp interfaces within the lattice Boltzmann method for fluids with arbitrary density ratios. European Physical Journal: Special Topics, 2009, 171, 21-29. | 1.2 | 6 |
| 223 | A factorized central moment lattice Boltzmann method. European Physical Journal: Special Topics, 2009, 171, 55-61. | 1.2 | 71 |
| 224 | Entropic, LES and boundary conditions in lattice Boltzmann simulations of turbulence. European Physical Journal: Special Topics, 2009, 171, 167-171. | 1.2 | 10 |
| 225 | Towards higher order lattice Boltzmann schemes. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P06006. | 0.9 | 44 |
| 226 | Simulation of laminar flow in a threeâ€dimensional lidâ€driven cavity by lattice Boltzmann method. International Journal of Numerical Methods for Heat and Fluid Flow, 2009, 19, 790-815. | 1.6 | 32 |
| 227 | Generalized lattice Boltzmann equation with forcing term for computation of wall-bounded turbulent flows. Physical Review E, 2009, 79, 026703. | 0.8 | 76 |
| 228 | Lattice Boltzmann Simulations of Soft Matter Systems. , 2009, , 89-166. | | 136 |
| 229 | A Comparative Study of the Lattice Boltzmann and Pseudo-Spectral Methods for Decaying Homogeneous Isotropic Turbulence. , 2009, , . | | 0 |
| 230 | Theory of the lattice Boltzmann equation: Lattice Boltzmann model for axisymmetric flows. Physical Review E, 2009, 79, 046708. | 0.8 | 93 |
| 231 | Large Eddy Simulation of Self-Sustained Flow Instabilities in Cavities Using the Lattice-Boltzmann Method. AIAA Journal, 2009, 47, 229-243. | 1.5 | 7 |
| 232 | Lattice Boltzmann Simulation of Convective Heat Transfer from Heated Blocks in a Horizontal Channel. Numerical Heat Transfer; Part A: Applications, 2009, 56, 422-443. | 1.2 | 27 |
| 233 | Computation of turbulent flow and secondary motions in a square duct using a forced generalized lattice Boltzmann equation. Physical Review E, 2009, 79, 026704. | 0.8 | 21 |
| 234 | INCOMPRESSIBLE MRT LATTICE BOLTZMANN MODEL WITH EIGHT VELOCITIES IN 2D SPACE. International Journal of Modern Physics C, 2009, 20, 1023-1037. | 0.8 | 9 |
| 235 | Weighted $mathbb{L}^2$-Stability of the Lattice Boltzmann Method. SIAM Journal on Numerical Analysis, 2009, 47, 1651-1665. | 1.1 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 236 | Simulation of Two Phase Flow in Reservoir Rocks Using a Lattice Boltzmann Method. , 2009, , . | | 11 |
| 237 | Simulation of Two-Phase Flow in Reservoir Rocks Using a Lattice Boltzmann Method. SPE Journal, 2010, 15, 917-927. | 1.7 | 107 |
| 238 | Gas Flow Through Square Arrays of Circular Cylinders with Klinkenberg Effect: a Lattice Boltzmann Study. Communications in Computational Physics, 2010, 8, 1052-1073. | 0.7 | 66 |
| 239 | Momentum transfer correction for macroscopic-gradient boundary conditions in lattice Boltzmann methods. Journal of Computational Physics, 2010, 229, 2497-2506. | 1.9 | 10 |
| 240 | On the stability structure for lattice Boltzmann schemes. Computers and Mathematics With Applications, 2010, 59, 2150-2167. | 1.4 | 10 |
| 241 | Double MRT thermal lattice Boltzmann method for simulating convective flows. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3499-3507. | 0.9 | 142 |
| 242 | Implementation of a Lattice Boltzmann kernel using the Compute Unified Device Architecture developed by nVIDIA. Computing and Visualization in Science, 2010, 13, 29-39. | 1.2 | 152 |
| 243 | Efficient monolithic simulation techniques for the stationary Lattice Boltzmann equation on general meshes. Computing and Visualization in Science, 2010, 13, 129-143. | 1.2 | 3 |
| 244 | Highly interactive computational steering for coupled 3D flow problems utilizing multiple GPUs. Computing and Visualization in Science, 2010, 13, 299-314. | 1.2 | 12 |
| 245 | Optimal Stability of Advection-Diffusion Lattice Boltzmann Models with Two Relaxation Times forÂPositive/Negative Equilibrium. Journal of Statistical Physics, 2010, 139, 1090-1143. | 0.5 | 150 |
| 246 | LBflow: An extensible lattice Boltzmann framework for the simulation of geophysical flows. Part I: theory and implementation. Computers and Geosciences, 2010, 36, 115-122. | 2.0 | 35 |
| 247 | Magnetic resonance imaging and 3D simulation studies of biofilm accumulation and cleaning on reverse osmosis membranes. Food and Bioproducts Processing, 2010, 88, 401-408. | 1.8 | 46 |
| 248 | Threeâ€dimensional modelling and simulation of magnetorheological fluids. International Journal for Numerical Methods in Engineering, 2010, 84, 1273-1302. | 1.5 | 53 |
| 249 | Validation of 3D simulations of reverse osmosis membrane biofouling. Biotechnology and Bioengineering, 2010, 106, 677-689. | 1.7 | 21 |
| 250 | A higher-order moment method of the lattice Boltzmann model for the conservation law equation. Applied Mathematical Modelling, 2010, 34, 481-494. | 2.2 | 23 |
| 251 | Artificial compressibility method revisited: Asymptotic numerical method for incompressible Navierâ€“Stokes equations. Journal of Computational Physics, 2010, 229, 1698-1723. | 1.9 | 65 |
| 252 | Multiple-relaxation-time lattice Boltzmann model for the convection and anisotropic diffusion equation. Journal of Computational Physics, 2010, 229, 7774-7795. | 1.9 | 278 |
| 253 | Combined Lattice Boltzmann and phase-field simulations for incompressible fluid flow in porous media. Mathematics and Computers in Simulation, 2010, 80, 1458-1468. | 2.4 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 254 | Lattice Boltzmann method for polymer kinetic theory. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 1082-1092. | 1.0 | 11 |
| 255 | Numerical simulation of capsule deformation in simple shear flow. Computers and Fluids, 2010, 39, 242-250. | 1.3 | 25 |
| 256 | Comparison of the lattice Boltzmann and pseudo-spectral methods for decaying turbulence: Low-order statistics. Computers and Fluids, 2010, 39, 568-591. | 1.3 | 52 |
| 257 | A front-tracking lattice Boltzmann method to study flow-induced deformation of three-dimensional capsules. Computers and Fluids, 2010, 39, 499-511. | 1.3 | 19 |
| 258 | Immersed boundary method and lattice Boltzmann method coupled FSI simulation of mitral leaflet flow. Computers and Fluids, 2010, 39, 871-881. | 1.3 | 60 |
| 259 | Boundary treatment for the lattice Boltzmann method using adaptive relaxation times. Computers and Fluids, 2010, 39, 900-909. | 1.3 | 14 |
| 260 | Multi-relaxation-time lattice Boltzmann model for axisymmetric flows. Computers and Fluids, 2010, 39, 1542-1548. | 1.3 | 38 |
| 261 | Non-Darcy flow in disordered porous media: A lattice Boltzmann study. Computers and Fluids, 2010, 39, 2069-2077. | 1.3 | 87 |
| 262 | Multirange multi-relaxation time Shanâ€“Chen model with extended equilibrium. Computers and Mathematics With Applications, 2010, 59, 2260-2270. | 1.4 | 31 |
| 263 | Optimal design for non-Newtonian flows using a topology optimization approach. Computers and Mathematics With Applications, 2010, 59, 2340-2350. | 1.4 | 77 |
| 264 | On a superconvergent lattice Boltzmann boundary scheme. Computers and Mathematics With Applications, 2010, 59, 2141-2149. | 1.4 | 29 |
| 265 | A lattice Boltzmann approach for free-surface-flow simulations on non-uniform block-structured grids. Computers and Mathematics With Applications, 2010, 59, 2215-2235. | 1.4 | 59 |
| 266 | Pressure condition for lattice Boltzmann methods on domains with curved boundaries. Computers and Mathematics With Applications, 2010, 59, 2168-2177. | 1.4 | 5 |
| 267 | MRT-Lattice Boltzmann simulation of forced convection in a plane channel with an inclined square cylinder. International Journal of Thermal Sciences, 2010, 49, 131-142. | 2.6 | 48 |
| 268 | Thermal analysis of a 2-D heat recovery system using porous media including lattice Boltzmann simulation of fluid flow. International Journal of Thermal Sciences, 2010, 49, 1031-1041. | 2.6 | 29 |
| 269 | Incompressible Multi-Relaxation-Time Lattice Boltzmann Model in 3-D Space. Journal of Hydrodynamics, 2010, 22, 782-787. | 1.3 | 15 |
| 270 | Numerical Simulation of Two-Dimensional Flow over Three Cylinders by Lattice Boltzmann Method. Communications in Theoretical Physics, 2010, 54, 886-892. | 1.1 | 5 |
| 271 | Quantitative analysis of numerical estimates for the permeability of porous media from lattice-Boltzmann simulations. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P11026. | 0.9 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 272 | A lattice Boltzmann model for the Burgersâ€“Fisher equation. Chaos, 2010, 20, 023129. | 1.0 | 11 |
| 273 | Quasiequilibrium lattice Boltzmann models with tunable bulk viscosity for enhancing stability. Physical Review E, 2010, 81, 016702. | 0.8 | 28 |
| 274 | Improved axisymmetric lattice Boltzmann scheme. Physical Review E, 2010, 81, 056707. | 0.8 | 101 |
| 275 | Finite-difference-based multiple-relaxation-times lattice Boltzmann model for binary mixtures. Physical Review E, 2010, 81, 016706. | 0.8 | 9 |
| 276 | The characteristics of induced force for an in-line vibrating cylinder in a cross flow. , 2010, , . | | 0 |
| 277 | Electromagnetic waves in lattice Boltzmann magnetohydrodynamics. Europhysics Letters, 2010, 90, 50002. | 0.7 | 15 |
| 278 | LATTICE BOLTZMANN MODEL FOR SIMULATING VISCOUS COMPRESSIBLE FLOWS. International Journal of Modern Physics C, 2010, 21, 383-407. | 0.8 | 20 |
| 279 | A Lattice-Boltzmann Approach to Fluid Film Lubrication. Journal of Tribology, 2010, 132, . | 1.0 | 7 |
| 280 | Computation of heat transfer and fluid flow in an obstructed channel using lattice Boltzmann method. Engineering Computations, 2010, 27, 106-116. | 0.7 | 7 |
| 281 | Vortex ring with swirl: A numerical study. Physics of Fluids, 2010, 22, . | 1.6 | 26 |
| 282 | Rectangular lattice Boltzmann method. Physical Review E, 2010, 81, 026705. | 0.8 | 19 |
| 283 | Change in macroscopic concentration at the interface between different materials: Continuous or discontinuous. Water Resources Research, 2010, 46, . | 1.7 | 20 |
| 284 | Lattice Boltzmann equation method for multiple immiscible continuum fluids. Physical Review E, 2010, 82, 066701. | 0.8 | 42 |
| 285 | Thermal fluctuations in the lattice Boltzmann method for nonideal fluids. Physical Review E, 2010, 82, 056714. | 0.8 | 36 |
| 286 | Using Nanoparticle-Filled Microcapsules for Site-Specific Healing of Damaged Substrates: Creating a â€œRepair-and-Goâ€•System. ACS Nano, 2010, 4, 1115-1123. | 7.3 | 52 |
| 287 | Direct Numerical Simulation of Fully-Developed Turbulent Channel Flow Using the Lattice Boltzmann Method and Analysis of OpenMP Scalability. Lecture Notes in Computer Science, 2010, , 1-19. | 1.0 | 6 |
| 288 | Phase-field modeling by the method of lattice Boltzmann equations. Physical Review E, 2010, 81, 036707. | 0.8 | 124 |
| 289 | A heuristic curved-boundary treatment in lattice Boltzmann method. Europhysics Letters, 2010, 92, 54003. | 0.7 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 290 | Boundary Condition Implementation for a Coupled Lattice Boltzmann and Navier-Stokes Methodology. , 2010, , . | | 1 |
| 292 | Multiple-relaxation-time lattice Boltzmann approach to compressible flows with flexible specific-heat ratio and Prandtl number. Europhysics Letters, 2010, 90, 54003. | 0.7 | 68 |
| 293 | Parallel Lattice-Boltzmann Simulation of Transitional Flow on Non-uniform Grids. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2011, , 283-295. | 0.2 | 0 |
| 294 | Numerics of the lattice Boltzmann method: Effects of collision models on the lattice Boltzmann simulations. Physical Review E, 2011, 83, 056710. | 0.8 | 287 |
| 295 | Lattice Boltzmann Method for Sprays. , 2011, , 425-439. | | 1 |
| 296 | Designing self-propelled microcapsules for pick-up and delivery of microscopic cargo. Soft Matter, 2011, 7, 3168. | 1.2 | 21 |
| 297 | Lattice Boltzmann Simulations with Locally Refined Meshes. , 2011, , . | | 4 |
| 298 | Poreâ€scale determination of parameters for macroscale modeling of evaporation processes in porous media. Water Resources Research, 2011, 47, . | 1.7 | 18 |
| 299 | Lattice Boltzmann method for one-dimensional radiation transfer. Physical Review E, 2011, 84, 016704. | 0.8 | 39 |
| 300 | Cross Correlators and Galilean Invariance in Fluctuating Ideal Gas Lattice Boltzmann Simulations. Communications in Computational Physics, 2011, 9, 1315-1322. | 0.7 | 2 |
| 301 | Natural Convection of Temperature-Sensitive Magnetic Fluids in Porous Media. Advances in Applied Mathematics and Mechanics, 2011, 3, 121-130. | 0.7 | 9 |
| 302 | Immersed Boundary-Lattice Boltzmann Coupling Scheme for Fluid-Structure Interaction with Flexible Boundary. Communications in Computational Physics, 2011, 9, 1375-1396. | 0.7 | 12 |
| 303 | Asymptotic Analysis of Lattice Boltzmann Outflow Treatments. Communications in Computational Physics, 2011, 9, 1117-1127. | 0.7 | 16 |
| 304 | A CLASS OF PHYSICALLY MOTIVATED CLOSURES FOR RADIATION HYDRODYNAMICS. Astrophysical Journal, 2011, 727, 67. | 1.6 | 1 |
| 305 | Basic Theory and Applications of the Lattice Boltzmann Method. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 2367-2378. | 0.2 | 0 |
| 306 | Modelling solute transport in shallow water with the lattice Boltzmann method. Computers and Fluids, 2011, 50, 181-188. | 1.3 | 37 |
| 307 | Passive heat transfer in a turbulent channel flow simulation using large eddy simulation based on the lattice Boltzmann method framework. International Journal of Heat and Fluid Flow, 2011, 32, 1111-1119. | 1.1 | 22 |
| 308 | Lattice Boltzmann Simulation Of Non-Darcy Flow In Stochastically Generated 2D Porous Media Geometries. , 2011, , . | | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 309 | On the Three-Dimensional Central Moment Lattice Boltzmann Method. Journal of Statistical Physics, 2011, 143, 747-794. | 0.5 | 67 |
| 310 | Lattice Boltzmann method for microfluidics: models and applications. Microfluidics and Nanofluidics, 2011, 10, 1-28. | 1.0 | 336 |
| 311 | Lattice Boltzmann modeling of microchannel flows in the transition flow regime. Microfluidics and Nanofluidics, 2011, 10, 607-618. | 1.0 | 158 |
| 312 | A computation of flow and heat transfer past three heated cylinders in a vee shape by a double distribution MRT thermal lattice Boltzmann model. International Journal of Thermal Sciences, 2011, 50, 1532-1542. | 2.6 | 42 |
| 313 | Optimal low-dispersion low-dissipation LBM schemes for computational aeroacoustics. Journal of Computational Physics, 2011, 230, 5353-5382. | 1.9 | 60 |
| 314 | Velocity inversion of micro cylindrical Couette flow: A lattice Boltzmann study. Computers and Mathematics With Applications, 2011, 61, 3519-3527. | 1.4 | 55 |
| 315 | The role of the kinetic parameter in the stability of two-relaxation-time advectionâ€“diffusion lattice Boltzmann schemes. Computers and Mathematics With Applications, 2011, 61, 3417-3442. | 1.4 | 52 |
| 316 | Gas flow simulations in a structured packing by lattice Boltzmann method. Chemical Engineering Science, 2011, 66, 3742-3752. | 1.9 | 9 |
| 317 | Investigation of deformation and breakup of a falling droplet using a multiple-relaxation-time lattice Boltzmann method. Computers and Fluids, 2011, 40, 156-171. | 1.3 | 47 |
| 318 | GPU accelerated lattice Boltzmann model for shallow water flow and mass transport. International Journal for Numerical Methods in Engineering, 2011, 86, 316-334. | 1.5 | 32 |
| 319 | A directâ€forcing pressureâ€based lattice Boltzmann method for solving fluidâ€“particle interaction problems. International Journal for Numerical Methods in Fluids, 2011, 66, 648-670. | 0.9 | 12 |
| 320 | Shearâ€improved Smagorinsky modeling of turbulent channel flow using generalized Lattice Boltzmann equation. International Journal for Numerical Methods in Fluids, 2011, 67, 700-712. | 0.9 | 22 |
| 321 | A lattice Boltzmann equation method for real fluids with the equation of state known in tabular form only in regions of liquid and vapor phases. Computers and Mathematics With Applications, 2011, 61, 3537-3548. | 1.4 | 21 |
| 322 | Artificial compressibility method and lattice Boltzmann method: Similarities and differences. Computers and Mathematics With Applications, 2011, 61, 3461-3474. | 1.4 | 29 |
| 323 | A viscosity counteracting approach in the lattice Boltzmann BGK model for low viscosity flow: Preliminary verification. Computers and Mathematics With Applications, 2011, 61, 3690-3702. | 1.4 | 12 |
| 324 | Quartic parameters for acoustic applications of lattice Boltzmann scheme. Computers and Mathematics With Applications, 2011, 61, 3404-3416. | 1.4 | 30 |
| 325 | Free surface flow simulations on GPGPUs using the LBM. Computers and Mathematics With Applications, 2011, 61, 3549-3563. | 1.4 | 74 |
| 326 | Lattice Boltzmann large eddy simulation of subcritical flows around a sphere on non-uniform grids. Computers and Mathematics With Applications, 2011, 61, 3475-3484. | 1.4 | 37 |

| # | Article | IF | Citations |
|---|---|---|---|
| 327 | Multi relaxation time lattice Boltzmann simulations of deep lid driven cavity flows at different aspect ratios. Computers and Fluids, 2011, 45, 233-240. | 1.3 | 47 |
| 328 | Analysis of Lattice-Boltzmann methods for internal flows. Computers and Fluids, 2011, 47, 115-121. | 1.3 | 27 |
| 329 | Entropy generation of turbulent double-diffusive natural convection in a rectangle cavity. Energy, 2011, 36, 1721-1734. | 4.5 | 47 |
| 330 | Multiple-relaxation-time lattice Boltzmann model for generalized Newtonian fluid flows. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 332-342. | 1.0 | 97 |
| 331 | Numerical rheometry of bulk materials using a power law fluid and the lattice Boltzmann method. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 628-638. | 1.0 | 20 |
| 332 | A solution-adaptive lattice Boltzmann method for two-dimensional incompressible viscous flows. Journal of Computational Physics, 2011, 230, 2246-2269. | 1.9 | 46 |
| 333 | Multiple-relaxation-time lattice Boltzmann model for compressible fluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2129-2139. | 0.9 | 33 |
| 334 | Prandtl number effects in MRT lattice Boltzmann models for shocked and unshocked compressible fluids. Theoretical and Applied Mechanics Letters, 2011, 1, 052004. | 1.3 | 7 |
| 335 | Lattice Boltzmann method for multimode wave propagation in viscoelastic media and in elastic solids. Physical Review E, 2011, 83, 066703. | 0.8 | 18 |
| 336 | Isotropy of three-dimensional quantum lattice Boltzmann schemes. Physical Review E, 2011, 83, 046706. | 0.8 | 23 |
| 337 | Comment on â€œHeat transfer and fluid flow in microchannels and nanochannels at high Knudsen number using thermal lattice-Boltzmann methodâ€• Physical Review E, 2011, 84, 048301; discussion 048302. | 0.8 | 10 |
| 338 | 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. | 1.6 | 24 |
| 339 | Lattice Boltzmann Study of Mixed Convection in a Cubic Cavity. Communications in Theoretical Physics, 2011, 56, 144-150. | 1.1 | 9 |
| 340 | Multiple-Relaxation-Time Lattice Boltzmann Approach to Richtmyerâ€”Meshkov Instability. Communications in Theoretical Physics, 2011, 55, 325-334. | 1.1 | 15 |
| 341 | Application of the multicomponent lattice Boltzmann simulation method to oil/water dispersions. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 105502. | 0.7 | 4 |
| 342 | Reactive Rayleigh-Taylor systems: Front propagation and non-stationarity. Europhysics Letters, 2011, 94, 54004. | 0.7 | 35 |
| 343 | Viscously damped acoustic waves with the lattice Boltzmann method. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2246-2254. | 1.6 | 12 |
| 344 | Multi-relaxation-time Lattice Boltzman model for uniform-shear flow over a rotating circular cylinder. Thermal Science, 2011, 15, 859-878. | 0.5 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 345 | Discrete model combined with mimetic microfluidic chips to study cell growth in porous scaffold under flow conditions. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 25-26. | 0.9 | 1 |
| 346 | Effect of the forcing term in the multiple-relaxation-time lattice Boltzmann equation on the shear stress or the strain rate tensor. Physical Review E, 2012, 86, 016705. | 0.8 | 81 |
| 347 | Lattice Boltzmann method for relativistic hydrodynamics: Issues on conservation law of particle number and discontinuities. Physical Review D, 2012, 86, . | 1.6 | 7 |
| 348 | Flow over a traveling wavy foil with a passively flapping flat plate. Physical Review E, 2012, 85, 056316. | 0.8 | 12 |
| 349 | Accuracy of the viscous stress in the lattice Boltzmann equation with simple boundary conditions. Physical Review E, 2012, 86, 065701. | 0.8 | 30 |
| 350 | Coupling lattice Boltzmann model for simulation of thermal flows on standard lattices. Physical Review E, 2012, 85, 016710. | 0.8 | 72 |
| 351 | Comparative Study of the Large Eddy Simulations with the Lattice Boltzmann Method Using the Wall-Adapting Local Eddy-Viscosity and Vreman Subgrid Scale Models. Chinese Physics Letters, 2012, 29, 104706. | 1.3 | 15 |
| 352 | The Application of the Lattice Boltzmann Method for Permeability Prediction of Porous Media: Investigating the Effects of Viscosity and Grid Resolution. Petroleum Science and Technology, 2012, 30, 1324-1334. | 0.7 | 1 |
| 353 | Multi-relaxation-time lattice Boltzmann front tracking method for two-phase flow with surface tension. Chinese Physics B, 2012, 21, 124703. | 0.7 | 8 |
| 354 | An Improved MRT Lattice Boltzmann Model for Calculating Anisotropic Permeability of Compressed and Uncompressed Carbon Cloth Gas Diffusion Layers Based on X-Ray Computed Micro-Tomography. Journal of Fuel Cell Science and Technology, 2012, 9, . | 0.8 | 16 |
| 355 | Inertial Frame Independent Forcing for Discrete Velocity Boltzmann Equation: Implications for Filtered Turbulence Simulation. Communications in Computational Physics, 2012, 12, 732-766. | 0.7 | 3 |
| 356 | Truncation Errors, Exact And Heuristic Stability Analysis Of Two-Relaxation-Times Lattice Boltzmann Schemes For Anisotropic Advection-Diffusion Equation. Communications in Computational Physics, 2012, 11, 1439-1502. | 0.7 | 84 |
| 357 | First- and second-order forcing expansions in a lattice Boltzmann method reproducing isothermal hydrodynamics in artificial compressibility form. Journal of Fluid Mechanics, 2012, 698, 282-303. | 1.4 | 40 |
| 358 | Immersed boundary lattice Boltzmann model based on multiple relaxation times. Physical Review E, 2012, 85, 016711. | 0.8 | 40 |
| 359 | A pseudopotential-based multiple-relaxation-time lattice Boltzmann model for multicomponent/multiphase flows. Acta Mechanica Sinica/Lixue Xuebao, 2012, 28, 983-992. | 1.5 | 40 |
| 360 | Relative Permeability Calculations from Two-Phase Flow Simulations Directly on Digital Images of Porous Rocks. Transport in Porous Media, 2012, 94, 487-504. | 1.2 | 184 |
| 361 | Simulation of the flow around an upstream transversely oscillating cylinder and a stationary cylinder in tandem. Physics of Fluids, 2012, 24, . | 1.6 | 13 |
| 362 | Modeling the making and breaking of bonds as an elastic microcapsule moves over a compliant substrate. Soft Matter, 2012, 8, 77-85. | 1.2 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 363 | Lattice Boltzmann Method for Simulation of Solutal Interfacial Convection in Gasâ€“Liquid System. Industrial & Engineering Chemistry Research, 2012, 51, 10955-10967. | 1.8 | 29 |
| 364 | Critical dynamics of an isothermal compressible nonideal fluid. Physical Review E, 2012, 86, 061119. | 0.8 | 9 |
| 365 | MRT RECTANGULAR LATTICE BOLTZMANN METHOD. International Journal of Modern Physics C, 2012, 23, 1250040. | 0.8 | 19 |
| 366 | Numerical study on particle dispersion and deposition in a scaled ventilated chamber using a lattice Boltzmann method. Journal of Aerosol Science, 2012, 47, 1-11. | 1.8 | 9 |
| 367 | Link-wise artificial compressibility method. Journal of Computational Physics, 2012, 231, 5109-5143. | 1.9 | 53 |
| 368 | On the use of lattice Boltzmann model for simulating dean flow of non-Newtonian fluids in curved square ducts. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 4250-4261. | 1.7 | 2 |
| 369 | MRT Lattice Boltzmann Schemes for High Reynolds Number Flow in Two-Dimensional Lid-Driven Semi-Circular Cavity. Energy Procedia, 2012, 16, 639-644. | 1.8 | 13 |
| 370 | Lattice-type-dependent momentum-exchange method for moving boundaries. Physical Review E, 2012, 85, 016704. | 0.8 | 41 |
| 371 | Assessment of the two relaxation time Latticeâ€Boltzmann scheme to simulate Stokes flow in porous media. Water Resources Research, 2012, 48, . | 1.7 | 87 |
| 372 | Sensitivity analysis and determination of free relaxation parameters for the weakly-compressible MRTâ€“LBM schemes. Journal of Computational Physics, 2012, 231, 7335-7367. | 1.9 | 28 |
| 373 | Single- and two-phase flow in microfluidic porous media analogs based on Voronoi tessellation. Lab on A Chip, 2012, 12, 253-261. | 3.1 | 108 |
| 374 | Lattice Boltzmann modeling and simulation of compressible flows. Frontiers of Physics, 2012, 7, 582-600. | 2.4 | 100 |
| 375 | Solving generalized lattice Boltzmann model for 3-D cavity flows using CUDA-GPU. Science China: Physics, Mechanics and Astronomy, 2012, 55, 1894-1904. | 2.0 | 7 |
| 376 | Multicomponent interparticle-potential lattice Boltzmann model for fluids with large viscosity ratios. Physical Review E, 2012, 86, 036701. | 0.8 | 102 |
| 377 | Simulation of fines migration using a nonâ€Newtonian lattice Boltzmannâ€discrete element model. Engineering Computations, 2012, 29, 366-391. | 0.7 | 12 |
| 378 | Simulation of fines migration using a nonâ€Newtonian lattice Boltzmannâ€discrete element model. Engineering Computations, 2012, 29, 392-418. | 0.7 | 10 |
| 379 | Isotropy conditions for lattice Boltzmann schemes. Application to D2Q9. ESAIM: Proceedings and Surveys, 2012, 35, 191-196. | 0.4 | 3 |
| 380 | A lattice Boltzmann model for diffusion of binary gas mixtures that includes diffusion slip. International Journal for Numerical Methods in Fluids, 2012, 69, 171-189. | 0.9 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 381 | Large eddy simulation of turbulent shallow water flows using multiâ€relaxationâ€time lattice Boltzmann model. International Journal for Numerical Methods in Fluids, 2012, 70, 1573-1589. | 0.9 | 18 |
| 382 | Modeling Fluid Flow in the Gas Diffusion Layers in PEMFC Using the Multiple Relaxationâ€time Lattice Boltzmann Method. Fuel Cells, 2012, 12, 365-381. | 1.5 | 29 |
| 383 | Construction of latticeâ€Boltzmann schemes for nonâ€Newtonian and twoâ€phase flows. Canadian Journal of Chemical Engineering, 2012, 90, 1081-1091. | 0.9 | 12 |
| 384 | Non-body-fitted Cartesian-mesh simulation of highly turbulent flows using multi-relaxation-time lattice Boltzmann method. Computers and Mathematics With Applications, 2012, 63, 1481-1496. | 1.4 | 15 |
| 385 | A numerical study of fluid flow passes two heated/cooled square cylinders in a tandem arrangement via lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2012, 55, 3909-3920. | 2.5 | 9 |
| 386 | Numerical study of turbulent double-diffusive natural convection in a square cavity by LES-based lattice Boltzmann model. International Journal of Heat and Mass Transfer, 2012, 55, 4862-4870. | 2.5 | 34 |
| 387 | The TheLMA project: A thermal lattice Boltzmann solver for the GPU. Computers and Fluids, 2012, 54, 118-126. | 1.3 | 22 |
| 388 | MRT-lattice Boltzmann computations of natural convection and volumetric radiation in a tilted square enclosure. International Journal of Thermal Sciences, 2012, 54, 125-141. | 2.6 | 27 |
| 389 | Multiple-relaxation-time lattice Boltzmann simulation of non-Newtonian flows past a rotating circular cylinder. Journal of Non-Newtonian Fluid Mechanics, 2012, 177-178, 1-14. | 1.0 | 36 |
| 390 | Numerical prediction of heat transfer by natural convection and radiation in an enclosure filled with an isotropic scattering medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1689-1704. | 1.1 | 46 |
| 391 | Simulation of liquid water breakthrough in a nanotomography reconstruction of a carbon paper gasâ€diffusion layer. AICHE Journal, 2012, 58, 646-655. | 1.8 | 9 |
| 392 | The effect of biofilm permeability on bioâ€clogging of porous media. Biotechnology and Bioengineering, 2012, 109, 1031-1042. | 1.7 | 99 |
| 393 | A New Multiple-relaxation-time Lattice Boltzmann Method for Natural Convection. Journal of Scientific Computing, 2013, 56, 122-130. | 1.1 | 20 |
| 394 | An Investigation of the Lattice Boltzmann Method for Large Eddy Simulation of Complex Turbulent Separated Flow. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, . | 0.8 | 8 |
| 395 | GPU-based numerical simulation of multi-phase flow in porous media using multiple-relaxation-time lattice Boltzmann method. Chemical Engineering Science, 2013, 102, 209-219. | 1.9 | 46 |
| 396 | Multiple-component lattice Boltzmann equation for fluid-filled vesicles in flow. Physical Review E, 2013, 87, 023307. | 0.8 | 13 |
| 397 | LES-based filter-matrix lattice Boltzmann model for simulating turbulent natural convection in a square cavity. International Journal of Heat and Fluid Flow, 2013, 42, 10-22. | 1.1 | 43 |
| 398 | Lattice Boltzmann model for combustion and detonation. Frontiers of Physics, 2013, 8, 94-110. | 2.4 | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 399 | Lattice Boltzmann model for the convection-diffusion equation. Physical Review E, 2013, 87, 063309. | 0.8 | 159 |
| 400 | Analysis of the absorbing layers for the weakly-compressible lattice Boltzmann methods. Journal of Computational Physics, 2013, 245, 14-42. | 1.9 | 35 |
| 401 | Multiple-relaxation-time lattice Boltzmann method for immiscible fluids at high Reynolds numbers. Physical Review E, 2013, 87, 023304. | 0.8 | 71 |
| 402 | Monitoring water transport in sandstone using flow propagators: A quantitative comparison of nuclear magnetic resonance measurement with lattice Boltzmann and pore network simulations. Advances in Water Resources, 2013, 60, 64-74. | 1.7 | 11 |
| 403 | Multi relaxation time lattice Boltzmann simulations of transition in deep 2D lid driven cavity using GPU. Computers and Fluids, 2013, 80, 381-387. | 1.3 | 38 |
| 404 | Application of lattice Boltzmann method for incompressible viscous flows. Applied Mathematical Modelling, 2013, 37, 4075-4092. | 2.2 | 32 |
| 405 | Implicit temperature-correction-based immersed-boundary thermal lattice Boltzmann method for the simulation of natural convection. Physical Review E, 2013, 87, 063304. | 0.8 | 60 |
| 406 | Filter-matrix lattice Boltzmann model for microchannel gas flows. Physical Review E, 2013, 88, 053311. | 0.8 | 14 |
| 407 | Stable lattice Boltzmann schemes with a dual entropy approach for monodimensional nonlinear waves. Computers and Mathematics With Applications, 2013, 65, 142-159. | 1.4 | 11 |
| 408 | Simulations of Three-dimensional Cavity Flows with Multi Relaxation Time Lattice Boltzmann Method and Graphic Processing Units. Procedia Engineering, 2013, 61, 94-99. | 1.2 | 4 |
| 409 | Multiple anisotropic collisions for advectionâ€“diffusion Lattice Boltzmann schemes. Advances in Water Resources, 2013, 51, 381-404. | 1.7 | 48 |
| 410 | Chapmanâ€“Enskog analysis for finite-volume formulation of lattice Boltzmann equation. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 2701-2712. | 1.2 | 17 |
| 411 | Computation of coupled double-diffusive convectionâ€“radiation including lattice Boltzmann simulation of fluid flow. Journal of Fluid Mechanics, 2013, 728, 146-162. | 1.4 | 2 |
| 412 | MRT-LBM-based numerical simulation of seepage flow through fractal fracture networks. Science China Technological Sciences, 2013, 56, 3115-3122. | 2.0 | 23 |
| 413 | Lattice Boltzmann modeling of multiphase flows at large density ratio with an improved pseudopotential model. Physical Review E, 2013, 87, 053301. | 0.8 | 376 |
| 414 | Lattice Boltzmann outflow treatments: Convective conditions and others. Computers and Mathematics With Applications, 2013, 65, 160-171. | 1.4 | 23 |
| 415 | Interfacial roughening in nonideal fluids: Dynamic scaling in the weak- and strong-damping regime. Physical Review E, 2013, 87, 022407. | 0.8 | 5 |
| 416 | Study of double-diffusive natural convection and radiation in an inclined cavity using lattice Boltzmann method. International Journal of Thermal Sciences, 2013, 63, 65-86. | 2.6 | 40 |

| # | Article | IF | Citations |
|---|---|---|---|
| 417 | Numerical Simulation of 3D Liquidâ€“Gas Distribution in Porous Media by a Two-Phase TRT Lattice Boltzmann Method. Transport in Porous Media, 2013, 96, 271-294. | 1.2 | 36 |
| 418 | Multiple-relaxation-time lattice Boltzmann model for the axisymmetric convection diffusion equation. International Journal of Heat and Mass Transfer, 2013, 67, 338-351. | 2.5 | 59 |
| 419 | A lattice-Boltzmann method with hierarchically refined meshes. Computers and Fluids, 2013, 75, 127-139. | 1.3 | 71 |
| 420 | A strain-rate model for a lattice Boltzmann BGK model in fluidâ€“structure interactions. Computers and Fluids, 2013, 88, 126-135. | 1.3 | 4 |
| 421 | Estimation of a semi-physical GLBE model using dual EnKF learning algorithm coupled with a sensor network design strategy: Application to air field monitoring. Information Fusion, 2013, 14, 335-348. | 11.7 | 2 |
| 422 | Kinetic numerical methods for solving the semiclassical Boltzmann-BGK equation. Computers and Fluids, 2013, 85, 153-165. | 1.3 | 3 |
| 423 | Lattice Boltzmann methods for complex micro-flows: applicability and limitations for practical applications. Fluid Dynamics Research, 2013, 45, 034501. | 0.6 | 45 |
| 424 | Computation of transitional flow past a circular cylinder using multiblock lattice Boltzmann method with a dynamic subgrid scale model. Fluid Dynamics Research, 2013, 45, 055510. | 0.6 | 6 |
| 425 | Simulations of flow instability in three dimensional deep cavities with multi relaxation time lattice Boltzmann method on graphic processing units. Computers and Fluids, 2013, 88, 866-871. | 1.3 | 20 |
| 426 | Lattice Boltzmann simulations of a time-dependent natural convection problem. Computers and Mathematics With Applications, 2013, 66, 1360-1371. | 1.4 | 32 |
| 427 | MRT-LBM Simulation of Four-lid-driven Cavity Flow Bifurcation. Procedia Engineering, 2013, 61, 100-107. | 1.2 | 3 |
| 428 | Entropic Lattice Boltzmann Method based high Reynolds number flow simulation using CUDA on GPU. Computers and Fluids, 2013, 88, 241-249. | 1.3 | 22 |
| 429 | An interpretation and derivation of the lattice Boltzmann method using Strang splitting. Computers and Mathematics With Applications, 2013, 65, 129-141. | 1.4 | 127 |
| 430 | On enhanced non-linear free surface flow simulations with a hybrid LBMâ€“VOF model. Computers and Mathematics With Applications, 2013, 65, 211-229. | 1.4 | 39 |
| 431 | Asymmetric lattice Boltzmann model for shallow water flows. Computers and Fluids, 2013, 88, 225-231. | 1.3 | 16 |
| 432 | A lattice Boltzmann method for immiscible two-phase Stokes flow with a local collision operator. Computers and Mathematics With Applications, 2013, 65, 864-881. | 1.4 | 23 |
| 433 | Lattice Boltzmann simulations of thermal convective flows in two dimensions. Computers and Mathematics With Applications, 2013, 65, 262-286. | 1.4 | 176 |
| 434 | From creeping to inertial flow in porous media: a lattice Boltzmannâ€“finite element study. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02038. | 0.9 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 435 | Numerical Investigation of Laminar Mixed Convection in a Cubic Cavity by MRT-LBM: Effects of the Sliding Direction. Numerical Heat Transfer; Part A: Applications, 2013, 63, 285-304. | 1.2 | 12 |
| 436 | DL_MESO: highly scalable mesoscale simulations. Molecular Simulation, 2013, 39, 796-821. | 0.9 | 123 |
| 437 | Boundary conditions for thermal lattice Boltzmann equation method. Journal of Computational Physics, 2013, 237, 366-395. | 1.9 | 164 |
| 438 | Sharp-interface immersed boundary lattice Boltzmann method with reduced spurious-pressure oscillations for moving boundaries. Physical Review E, 2013, 87, 053306. | 0.8 | 29 |
| 440 | An efficient lattice Boltzmann model for indoor airflow and particle transport. Journal of Aerosol Science, 2013, 63, 10-24. | 1.8 | 9 |
| 441 | Multi-GPU implementation of the lattice Boltzmann method. Computers and Mathematics With Applications, 2013, 65, 252-261. | 1.4 | 97 |
| 442 | Optimal relaxation collisions for lattice Boltzmann methods. Computers and Mathematics With Applications, 2013, 65, 172-185. | 1.4 | 25 |
| 443 | Some results on energy-conserving lattice Boltzmann models. Computers and Mathematics With Applications, 2013, 65, 831-844. | 1.4 | 7 |
| 444 | Linear lattice Boltzmann schemes for acoustic: Parameter choices and isotropy properties. Computers and Mathematics With Applications, 2013, 65, 845-863. | 1.4 | 6 |
| 445 | Direct Numerical Simulation of Bubble Dynamics Using Phase-Field Model and Lattice Boltzmann Method. Industrial & Engineering Chemistry Research, 2013, 52, 11391-11403. | 1.8 | 38 |
| 446 | Investigation of Double Diffusive Natural Convection in Presence of Gray Gas Radiation Within a Square Cavity Using Multiple Relaxation Time Lattice Boltzmann Method. Journal of Heat Transfer, 2013, 135, . | 1.2 | 8 |
| 447 | Quantitative determination of molecular propagator distributions for solute transport in homogeneous and heterogeneous porous media using lattice Boltzmann simulations. Water Resources Research, 2013, 49, 8531-8538. | 1.7 | 32 |
| 448 | Lateral Migration and Nonuniform Rotation of Biconcave Particle Suspended in Poiseuille Flow. Chinese Physics Letters, 2013, 30, 064701. | 1.3 | 9 |
| 449 | Porosity and Permeability Change under Stress and Correlation to Rock Texture. , 2013, , . | | 1 |
| 450 | Fluctuating ideal-gas lattice Boltzmann method with fluctuation dissipation theorem for nonvanishing velocities. Physical Review E, 2013, 87, 063310. | 0.8 | 15 |
| 451 | Model-Free Stochastic Localization of CBRN Releases. IEEE Transactions on Signal Processing, 2013, 61, 4246-4258. | 3.2 | 2 |
| 452 | MODELING MOVING BOUNDARY IN SHALLOW WATER BY LBM. International Journal of Modern Physics C, 2013, 24, 1250094. | 0.8 | 4 |
| 453 | Hybrid multiple-relaxation-time lattice-Boltzmann finite-difference method for axisymmetric multiphase flows. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 055501. | 0.7 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 454 | Simulation of turbulent duct flow by employing shear-improved Smagorinsky model accompanied by forced generalized lattice Boltzmann method. International Journal of Numerical Methods for Heat and Fluid Flow, 2013, 24, 86-102. | 1.6 | 2 |
| 455 | Derivation of Hydrodynamics for Multi-Relaxation Time Lattice Boltzmann using the Moment Approach. Communications in Computational Physics, 2013, 13, 614-628. | 0.7 | 12 |
| 456 | On Triangular Lattice Boltzmann Schemes for Scalar Problems. Communications in Computational Physics, 2013, 13, 649-670. | 0.7 | 2 |
| 457 | Numerical Simulation of Flows about a Stationary and a Free-Falling Cylinder Using Immersed Boundary-Finite Difference Lattice Boltzmann Method. Journal of Computational Multiphase Flows, 2013, 5, 27-41. | 0.8 | 3 |
| 458 | The use of MRT-lattice Boltzmann method for the prediction of fluid solid flow. IOP Conference Series: Materials Science and Engineering, 2013, 50, 012037. | 0.3 | 1 |
| 459 | Evaluation of Three Lattice Boltzmann Models for Particulate Flows. Communications in Computational Physics, 2013, 13, 1151-1172. | 0.7 | 28 |
| 460 | Simulation of strong nonlinear waves with vectorial lattice Boltzmann schemes. International Journal of Modern Physics C, 2014, 25, 1441014. | 0.8 | 13 |
| 461 | Regularized lattice BGK versus highly accurate spectral methods for cavity flow simulations. International Journal of Modern Physics C, 2014, 25, 1441003. | 0.8 | 16 |
| 462 | Modelling of dendritic growth during alloy solidification under natural convection. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 034006. | 0.8 | 22 |
| 463 | Numerical study on the fluid flow pass a square cylinder: The temperature-viscosity dependence. International Journal of Modern Physics C, 2014, 25, 1350101. | 0.8 | 0 |
| 464 | Lattice Boltzmann Formulation for Linear Viscoelastic Fluids Using an Abstract Second Stress. SIAM Journal of Scientific Computing, 2014, 36, A2507-A2532. | 1.3 | 13 |
| 465 | Simulation of two-phase fluid mixture flow in rectangular two-inlet cavity using lattice Boltzmann method. International Journal of Modern Physics C, 2014, 25, 1450004. | 0.8 | 8 |
| 466 | Numerical Simulation of High Reynolds Number Flow Structure in a Lid-Driven Cavity Using MRT-LES. Applied Mechanics and Materials, 0, 554, 665-669. | 0.2 | 1 |
| 467 | Numerical Analysis on the Effects of Mixed Convection of Particles Removal Flow over Heated Cavity Using Multi-Relaxation Time Thermal Lattice Boltzmann Method. Applied Mechanics and Materials, 0, 695, 487-490. | 0.2 | 0 |
| 468 | Heat Transfer Evaluation on Curved Boundaries in Thermal Lattice Boltzmann Equation Method. Journal of Heat Transfer, 2014, 136, . | 1.2 | 29 |
| 469 | Effects of Numerical Simulation Geometry on Fluid Solid Particles Interaction Using Multi Relaxation Time Lattice Boltzmann Method. Applied Mechanics and Materials, 0, 695, 491-494. | 0.2 | 0 |
| 470 | Deformation and breakup of a liquid droplet past a solid circular cylinder: A lattice Boltzmann study. Physical Review E, 2014, 90, 043015. | 0.8 | 47 |
| 471 | Phase-field-based lattice Boltzmann model for axisymmetric multiphase flows. Physical Review E, 2014, 90, 063311. | 0.8 | 51 |

| # | Article | IF | Citations |
|---|---|---|---|
| 472 | Multiblock approach for the passive scalar thermal lattice Boltzmann method. Physical Review E, 2014, 89, 043303. | 0.8 | 18 |
| 473 | A numerical study of a vortex ring impacting a permeable wall. Physics of Fluids, 2014, 26, . | 1.6 | 30 |
| 474 | Regularized lattice Bhatnagar-Gross-Krook model for two- and three-dimensional cavity flow simulations. Physical Review E, 2014, 89, 053317. | 0.8 | 72 |
| 475 | Lattice Boltzmann method for mixtures at variable Schmidt number. Journal of Chemical Physics, 2014, 141, 014102. | 1.2 | 5 |
| 476 | Asymptotic Analysis of the Lattice Boltzmann Method for Generalized Newtonian Fluid Flows. Multiscale Modeling and Simulation, 2014, 12, 1028-1045. | 0.6 | 12 |
| 477 | Calculation of drag and torque coefficients by time-independent lattice-Boltzmann method. Physical Review E, 2014, 90, 033313. | 0.8 | 3 |
| 478 | Enhancement of the stability of lattice Boltzmann methods by dissipation control. Physica A: Statistical Mechanics and Its Applications, 2014, 414, 285-299. | 1.2 | 25 |
| 479 | Simulation of Flow over a Cavity Using Multi-Relaxation Time Thermal Lattice Boltzmann Method. Applied Mechanics and Materials, 2014, 554, 296-300. | 0.2 | 1 |
| 480 | Interpolation methods and the accuracy of lattice-Boltzmann mesh refinement. Journal of Computational Physics, 2014, 259, 461-487. | 1.9 | 32 |
| 481 | Comparison of boundary slip for two variants of immersed boundary method in lattice Boltzmann framework. Physica A: Statistical Mechanics and Its Applications, 2014, 404, 200-216. | 1.2 | 7 |
| 482 | Multiphase cascaded lattice Boltzmann method. Computers and Mathematics With Applications, 2014, 67, 350-362. | 1.4 | 71 |
| 483 | Direct numerical simulation of circular-cap bubbles in low viscous liquids using counter diffusion lattice Boltzmann method. Nuclear Engineering and Design, 2014, 266, 17-33. | 0.8 | 3 |
| 484 | MRT lattice Boltzmann method for 2D flows in curvilinear coordinates. Computers and Fluids, 2014, 96, 288-301. | 1.3 | 18 |
| 485 | Hydrodynamics in Porous Media: A Finite Volume Lattice Boltzmann Study. Journal of Scientific Computing, 2014, 59, 80-103. | 1.1 | 29 |
| 486 | On rotational invariance of lattice Boltzmann schemes. Computers and Mathematics With Applications, 2014, 67, 239-255. | 1.4 | 16 |
| 487 | Finite-difference lattice Boltzmann method with a block-structured adaptive-mesh-refinement technique. Physical Review E, 2014, 89, 033310. | 0.8 | 74 |
| 488 | Transmissionâ€“Reflection Coefficient in the Lattice Boltzmann Method. Journal of Statistical Physics, 2014, 155, 277-299. | 0.5 | 19 |
| 489 | Simulations of Bingham plastic flows with the multiple-relaxation-time lattice Boltzmann model. Science China: Physics, Mechanics and Astronomy, 2014, 57, 532-540. | 2.0 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 490 | Two-dimensional MRT LB model for compressible and incompressible flows. Frontiers of Physics, 2014, 9, 246-254. | 2.4 | 12 |
| 491 | Taxila LBM: a parallel, modular lattice Boltzmann framework for simulating pore-scale flow in porous media. Computational Geosciences, 2014, 18, 17-27. | 1.2 | 29 |
| 492 | A multiple-relaxation-time lattice Boltzmann model for convection heat transfer in porous media. International Journal of Heat and Mass Transfer, 2014, 73, 761-775. | 2.5 | 107 |
| 493 | Coupled lattice Boltzmann method for simulating electrokinetic flows: A localized scheme for the Nernstâ€“Plank model. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 3570-3590. | 1.7 | 44 |
| 494 | A novel heterogeneous algorithm to simulate multiphase flow in porous media on multicore CPUâ€“GPU systems. Computer Physics Communications, 2014, 185, 1865-1874. | 3.0 | 63 |
| 495 | A comparative study of lattice Boltzmann methods using bounceâ€back schemes and immersed boundary ones for flow acoustic problems. International Journal for Numerical Methods in Fluids, 2014, 74, 439-467. | 0.9 | 47 |
| 496 | Development and validation of a new LBM-MRT hybrid model with enthalpy formulation for melting with natural convection. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 374-381. | 0.9 | 20 |
| 497 | A mass-conserving axisymmetric multiphase lattice Boltzmann method and its application in simulation of bubble rising. Journal of Computational Physics, 2014, 269, 386-402. | 1.9 | 51 |
| 498 | An immersed boundary method for fluids using the XFEM and the hydrodynamic Boltzmann transport equation. Computer Methods in Applied Mechanics and Engineering, 2014, 273, 37-55. | 3.4 | 3 |
| 499 | Numerical modeling of carrier gas flow in atomic layer deposition vacuum reactor: A comparative study of lattice Boltzmann models. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, . | 0.9 | 27 |
| 500 | Multiple-relaxation-time lattice Boltzmann method for study of two-lid-driven cavity flow solution multiplicity. Theoretical and Computational Fluid Dynamics, 2014, 28, 215-231. | 0.9 | 20 |
| 501 | Implicit-correction-based immersed boundaryâ€“lattice Boltzmann method with two relaxation times. Physical Review E, 2014, 89, 023307. | 0.8 | 42 |
| 502 | Accuracy and grid convergence of wall shear stress measured by lattice Boltzmann method. International Journal of Modern Physics C, 2014, 25, 1450057. | 0.8 | 4 |
| 503 | Phase-field-based multiple-relaxation-time lattice Boltzmann model for incompressible multiphase flows. Physical Review E, 2014, 89, 053320. | 0.8 | 166 |
| 504 | Lattice Boltzmann method for the convectionâ€“diffusion equation in curvilinear coordinate systems. Journal of Computational Physics, 2014, 257, 884-900. | 1.9 | 28 |
| 505 | Lattice Boltzmann phase-field modeling of thermocapillary flows in a confined microchannel. Journal of Computational Physics, 2014, 256, 334-356. | 1.9 | 89 |
| 506 | Numerical investigation on the head-on collision between unequal-sized droplets with multiple-relaxation-time lattice Boltzmann model. International Journal of Heat and Mass Transfer, 2014, 70, 629-640. | 2.5 | 19 |
| 507 | Binary droplet collision simulations by a multiphase cascaded lattice Boltzmann method. Physics of Fluids, 2014, 26, . | 1.6 | 70 |

| # | Article | IF | Citations |
|---|---|---|---|
| 508 | A comparative study of lattice Boltzmann models for incompressible flow. Computers and Mathematics With Applications, 2014, 68, 1446-1466. | 1.4 | 11 |
| 509 | Discrete adjoint sensitivity analysis for fluid flow topology optimization based on the generalized lattice Boltzmann method. Computers and Mathematics With Applications, 2014, 68, 1374-1392. | 1.4 | 29 |
| 510 | An alternative lattice Boltzmann model for three-dimensional incompressible flow. Computers and Mathematics With Applications, 2014, 68, 1107-1122. | 1.4 | 2 |
| 511 | An immersed boundary-thermal lattice Boltzmann method for solidâ€“liquid phase change. Journal of Computational Physics, 2014, 277, 305-319. | 1.9 | 79 |
| 512 | A multi-component lattice Boltzmann method in consistent with Stefanâ€“Maxwell equations: Derivation, validation and application in porous medium. Computers and Fluids, 2014, 105, 155-165. | 1.3 | 21 |
| 513 | Joint numerical microscale simulations of multiphase flow and NMR relaxation behavior in porous media using <scp>L</scp>attice <scp>B</scp>oltzmann methods. Water Resources Research, 2014, 50, 7378-7393. | 1.7 | 5 |
| 514 | Unsteady immiscible multiphase flow validation of a multiple-relaxation-time lattice Boltzmann method. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 105501. | 0.7 | 35 |
| 515 | Nonequilibrium scheme for computing the flux of the convection-diffusion equation in the framework of the lattice Boltzmann method. Physical Review E, 2014, 90, 013305. | 0.8 | 50 |
| 516 | Turbulence Simulation by Adaptive Multi-Relaxation Lattice Boltzmann Modeling. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 289-302. | 2.9 | 9 |
| 517 | A Coupled Lattice Boltzmann Method to Solve Nernstâ€“Planck Model for Simulating Electro-osmotic Flows. Journal of Scientific Computing, 2014, 61, 222-238. | 1.1 | 32 |
| 518 | Truncation errors and the rotational invariance of three-dimensional lattice models in the lattice Boltzmann method. Journal of Computational Physics, 2014, 269, 259-279. | 1.9 | 47 |
| 519 | Drafting, kissing and tumbling process of two particles with different sizes. Computers and Fluids, 2014, 96, 20-34. | 1.3 | 75 |
| 520 | Hybrid lattice Boltzmann finite difference simulation of mixed convection flows in a lid-driven square cavity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 2429-2435. | 0.9 | 27 |
| 521 | Lattice-Boltzmann simulations of the thermally driven 2D square cavity at high Rayleigh numbers. Journal of Computational Physics, 2014, 275, 257-272. | 1.9 | 87 |
| 522 | A Stable Lattice Boltzmann Method for Steady Backward-Facing Step Flow. Arabian Journal for Science and Engineering, 2014, 39, 6375-6384. | 1.1 | 2 |
| 523 | Free-energy-based lattice Boltzmann model for the simulation of multiphase flows with density contrast. Physical Review E, 2014, 89, 033309. | 0.8 | 69 |
| 524 | Lattice-Boltzmann method for the simulation of multiphase mass transfer and reaction of dilute species. Physical Review E, 2014, 89, 053308. | 0.8 | 33 |
| 525 | Galilean invariant fluidâ€“solid interfacial dynamics in lattice Boltzmann simulations. Journal of Computational Physics, 2014, 266, 161-170. | 1.9 | 144 |

| # | Article | IF | Citations |
|---|---|---|---|
| 526 | Lattice Boltzmann algorithms without cubic defects in Galilean invariance on standard lattices. Journal of Computational Physics, 2014, 259, 270-283. | 1.9 | 77 |
| 527 | Simulation of heat transfer enhancement by longitudinal vortex generators in dimple heat exchangers. Energy, 2014, 74, 27-36. | 4.5 | 38 |
| 528 | Thermodynamic consistency of the pseudopotential lattice Boltzmann model for simulating liquidâ€“vapor flows. Applied Thermal Engineering, 2014, 72, 56-61. | 3.0 | 45 |
| 529 | Study of immiscible displacements in porous media using a color-gradient-based multiphase lattice Boltzmann method. Computers and Fluids, 2014, 93, 164-172. | 1.3 | 107 |
| 530 | Elucidating the Role of Interfacial Tension for Hydrological Properties of Two-Phase Flow in Natural Sandstone by an Improved Lattice Boltzmann Method. Transport in Porous Media, 2014, 104, 205-229. | 1.2 | 51 |
| 531 | Development of LBGK and incompressible LBGKâ€based lattice Boltzmann flux solvers for simulation of incompressible flows. International Journal for Numerical Methods in Fluids, 2014, 75, 344-364. | 0.9 | 39 |
| 532 | Lattice Boltzmann modeling of shallow water flows over discontinuous beds. International Journal for Numerical Methods in Fluids, 2014, 75, 608-619. | 0.9 | 14 |
| 533 | A modified multiple-relaxation-time lattice Boltzmann model for convectionâ€“diffusion equation. Journal of Computational Physics, 2014, 274, 50-63. | 1.9 | 87 |
| 534 | Numerical Calculation of Wind Loads over Solar Collectors. Energy Procedia, 2014, 49, 163-173. | 1.8 | 27 |
| 535 | Numerical simulation of a rising CO2 droplet in the initial accelerating stage by a multiphase lattice Boltzmann method. Applied Ocean Research, 2014, 45, 1-9. | 1.8 | 11 |
| 536 | Development of Lattice Boltzmann Flux Solver for Simulation of Incompressible Flows. Advances in Applied Mathematics and Mechanics, 2014, 6, 436-460. | 0.7 | 120 |
| 537 | Shape Recovery of Elastic Capsules from Shear Flow Induced Deformation. Communications in Computational Physics, 2014, 16, 56-74. | 0.7 | 4 |
| 538 | Wavelength selection and symmetry breaking in orbital wave ripples. Journal of Geophysical Research F: Earth Surface, 2014, 119, 2239-2257. | 1.0 | 27 |
| 539 | Simulation of Power-Law Fluid Flows in Two-Dimensional Square Cavity Using Multi-Relaxation-Time Lattice Boltzmann Method. Communications in Computational Physics, 2014, 15, 265-284. | 0.7 | 32 |
| 540 | Multiphase Flow and Reactive Transport at the Pore Scale Using Lattice-Boltzmann Computer Simulations. , 2014, , . | | 1 |
| 541 | Enabling the environmentally clean air transportation of the future: a vision of computational fluid dynamics in 2030. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130317. | 1.6 | 13 |
| 542 | Lattice Boltzmann method for groundwater flow in non-orthogonal structured lattices. Computers and Mathematics With Applications, 2015, 70, 2601-2615. | 1.4 | 11 |
| 543 | On Initial Conditions for the Lattice Boltzmann Method. Communications in Computational Physics, 2015, 18, 450-468. | 0.7 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 544 | Numerical investigation of the effects of porosity and tortuosity on soil permeability using coupled three-dimensional discrete-element method and lattice Boltzmann method. Physical Review E, 2015, 91, 053301. | 0.8 | 38 |
| 545 | Lattice Boltzmann modeling of contact angle and its hysteresis in two-phase flow with large viscosity difference. Physical Review E, 2015, 92, 033306. | 0.8 | 80 |
| 546 | Regularized lattice Boltzmann model for a class of convection-diffusion equations. Physical Review E, 2015, 92, 043311. | 0.8 | 34 |
| 547 | Three-Dimensional Simulation of Balloon Dynamics by the Immersed Boundary Method Coupled to the Multiple-Relaxation-Time Lattice Boltzmann Method. Communications in Computational Physics, 2015, 17, 1271-1300. | 0.7 | 9 |
| 548 | Multiple-relaxation-time lattice Boltzmann model for incompressible miscible flow with large viscosity ratio and high PÃ©clet number. Physical Review E, 2015, 92, 043305. | 0.8 | 47 |
| 549 | Entropic multirelaxation lattice Boltzmann models for turbulent flows. Physical Review E, 2015, 92, 043309. | 0.8 | 72 |
| 550 | Lattice Boltzmann Stokesian dynamics. Physical Review E, 2015, 92, 053303. | 0.8 | 1 |
| 551 | An Innovative Technique for Estimation of Permeability of Shale Gas Reservoirs. , 2015, , . | | 3 |
| 552 | Simulation of Shale Gas Transport in 3D Complex Nanoscale-Pore Structures Using the Lattice Boltzmann Method. , 2015, , . | | 8 |
| 553 | Simulation of Cement Slurry Flow to Assess the Potential for Voids and Channels in Wellbore Cementing Processes. , 2015, , . | | 2 |
| 554 | Comparison of Simulations of Convective Flows. Communications in Computational Physics, 2015, 17, 1169-1184. | 0.7 | 6 |
| 555 | Taylor expansion method for analyzing bounce-back boundary conditions for lattice Boltzmann method. ESAIM Proceedings and Surveys, 2015, 52, 25-46. | 0.5 | 5 |
| 556 | From Lattice Boltzmann Method to Lattice Boltzmann Flux Solver. Entropy, 2015, 17, 7713-7735. | 1.1 | 41 |
| 557 | Hydrodynamic Force Evaluation by Momentum Exchange Method in Lattice Boltzmann Simulations. Entropy, 2015, 17, 8240-8266. | 1.1 | 21 |
| 558 | A multiple-relaxation-time lattice Boltzmann method for high-speed compressible flows. Chinese Physics B, 2015, 24, 050501. | 0.7 | 5 |
| 559 | Prediction of the permeability of proppant packs under load. International Journal of Modern Physics C, 2015, 26, 1550117. | 0.8 | 2 |
| 560 | A Review on the development of lattice Boltzmann computation of macro fluid flows and heat transfer. AEJ - Alexandria Engineering Journal, 2015, 54, 955-971. | 3.4 | 126 |
| 561 | Full Eulerian lattice Boltzmann model for conjugate heat transfer. Physical Review E, 2015, 92, 063305. | 0.8 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 562 | Thermodynamic-consistent lattice Boltzmann model for nonideal fluids. Europhysics Letters, 2015, 112, 44002. | 0.7 | 17 |
| 563 | Coupled Lattice Boltzmann and Meshless Simulation of Natural Convection in the Presence of Volumetric Radiation. Journal of Heat Transfer, 2015, 137, . | 1.2 | 8 |
| 564 | A modified lattice Boltzmann model for shallow water flows over complex topography. International Journal for Numerical Methods in Fluids, 2015, 77, 441-458. | 0.9 | 13 |
| 565 | A Hybrid Lattice Boltzmann Methodâ€“Finite Difference Method Model for Sediment Transport and Riverbed Deformation. River Research and Applications, 2015, 31, 447-456. | 0.7 | 4 |
| 566 | Multiple-relaxation-time lattice Boltzmann modeling of incompressible flows in porous media. Physica A: Statistical Mechanics and Its Applications, 2015, 429, 215-230. | 1.2 | 13 |
| 567 | Scalable multi-relaxation-time lattice Boltzmann simulations on multi-GPU cluster. Computers and Fluids, 2015, 110, 1-8. | 1.3 | 36 |
| 568 | Towards aeraulic simulations at urban scale using the lattice Boltzmann method. Environmental Fluid Mechanics, 2015, 15, 753-770. | 0.7 | 27 |
| 569 | A D3Q27 multiple-relaxation-time lattice Boltzmann method for turbulent flows. Computers and Mathematics With Applications, 2015, 69, 518-529. | 1.4 | 143 |
| 570 | Modeling the macroscopic behavior of saturated deformable porous media using direct numerical simulations. International Journal of Multiphase Flow, 2015, 71, 74-82. | 1.6 | 5 |
| 571 | A hybrid phase field multiple relaxation time lattice Boltzmann method for the incompressible multiphase flow with large density contrast. International Journal for Numerical Methods in Fluids, 2015, 77, 526-543. | 0.9 | 48 |
| 572 | Numerical simulation of liquefaction in porous media using nonlinear fluid flow law. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 229-250. | 1.7 | 6 |
| 573 | Detection and localization of harmful atmospheric releases via support vector machines. Environmental Systems Research, 2015, 4, . | 1.5 | 2 |
| 574 | Multiple-relaxation-time lattice Boltzmann model for binary mixtures of nonideal fluids based on the Enskog kinetic theory. Science Bulletin, 2015, 60, 634-647. | 4.3 | 8 |
| 575 | Lattice Boltzmann modeling of boiling heat transfer: The boiling curve and the effects of wettability. International Journal of Heat and Mass Transfer, 2015, 85, 787-796. | 2.5 | 278 |
| 576 | The cumulant lattice Boltzmann equation in three dimensions: Theory and validation. Computers and Mathematics With Applications, 2015, 70, 507-547. | 1.4 | 297 |
| 577 | Time-independent lattice Boltzmann method calculation of hydrodynamic interactions between two particles. Physical Review E, 2015, 91, 063308. | 0.8 | 3 |
| 578 | Double multiple-relaxation-time lattice Boltzmann model for solidâ€“liquid phase change with natural convection in porous media. Physica A: Statistical Mechanics and Its Applications, 2015, 438, 94-106. | 1.2 | 66 |
| 579 | Predicting the transport process of indoor semi-volatile organic compounds via lattice Boltzmann method. Building and Environment, 2015, 94, 82-96. | 3.0 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 580 | Multirelaxation-time lattice Boltzmann model for droplet heating and evaporation under forced convection. Physical Review E, 2015, 91, 043012. | 0.8 | 17 |
| 581 | Lattice Boltzmann simulation of immiscible fluid displacement in porous media: Homogeneous versus heterogeneous pore network. Physics of Fluids, 2015, 27, . | 1.6 | 127 |
| 582 | Boundary condition for lattice Boltzmann modeling of microscale gas flows with curved walls in the slip regime. Physical Review E, 2015, 91, 043305. | 0.8 | 50 |
| 583 | Three-dimensional prediction of reservoir water temperature by the lattice Boltzmann method: Validation. Journal of Hydrodynamics, 2015, 27, 248-256. | 1.3 | 11 |
| 584 | Investigation of coalescence-induced droplet jumping on superhydrophobic surfaces and liquid condensate adhesion on slit and plain fins. International Journal of Heat and Mass Transfer, 2015, 88, 445-455. | 2.5 | 71 |
| 585 | Lattice Boltzmann simulation of the three-dimensional motions of particles with various density ratios in lid-driven cavity flow. Applied Mathematics and Computation, 2015, 265, 826-843. | 1.4 | 17 |
| 586 | Multiple-relaxation-time lattice Boltzmann kinetic model for combustion. Physical Review E, 2015, 91, 043306. | 0.8 | 73 |
| 587 | 14-velocity and 18-velocity multiple-relaxation-time lattice Boltzmann models for three-dimensional incompressible flows. Computers and Mathematics With Applications, 2015, 69, 997-1019. | 1.4 | 3 |
| 588 | A numerical study on splash of oblique drop impact on wet walls. Computers and Fluids, 2015, 115, 11-24. | 1.3 | 50 |
| 589 | Phase interface effects in the total enthalpy-based lattice Boltzmann model for solidâ€“liquid phase change. Journal of Computational Physics, 2015, 294, 346-362. | 1.9 | 118 |
| 590 | Lattice Boltzmann model for the correct convection-diffusion equation with divergence-free velocity field. Physical Review E, 2015, 91, 033302. | 0.8 | 12 |
| 591 | A Comparative Study of LBE and DUGKS Methods for Nearly Incompressible Flows. Communications in Computational Physics, 2015, 17, 657-681. | 0.7 | 67 |
| 592 | Force method in a pseudo-potential lattice Boltzmann model. Journal of Computational Physics, 2015, 294, 78-89. | 1.9 | 31 |
| 593 | Efficient Stabilization of Advection Terms Involved in Separated Representations of Boltzmann and Fokker-Planck Equations. Communications in Computational Physics, 2015, 17, 975-1006. | 0.7 | 4 |
| 594 | Simulation of expanding bubble through a hole in a channel driven by pressure using lattice Boltzmann method. Computers and Mathematics With Applications, 2015, 70, 244-253. | 1.4 | 13 |
| 595 | Simulation of Acoustic Behavior of Bubbly Liquids with Hybrid Lattice Boltzmann and Homogeneous Equilibrium Models. Communications in Computational Physics, 2015, 17, 925-936. | 0.7 | 3 |
| 596 | A conservative lattice Boltzmann model for the volume-averaged Navierâ€“Stokes equations based on a novel collision operator. Journal of Computational Physics, 2015, 294, 258-273. | 1.9 | 10 |
| 597 | Lattice-Boltzmann methods for suspensions of solid particles. Molecular Physics, 2015, 113, 2531-2537. | 0.8 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 598 | Numerical Investigation of the Effects of a Magnetic Field on Nanofluid Flow and Heat Transfer by the Lattice Boltzmann Method. Numerical Heat Transfer; Part A: Applications, 2015, 68, 1-16. | 1.2 | 26 |
| 599 | Numerical simulation of wind loads on a parabolic trough solar collector using lattice Boltzmann and finite element methods. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 185-194. | 1.7 | 29 |
| 600 | Pore-Scale Study of Miscible Displacements in Porous Media Using Lattice Boltzmann Method. Journal of Statistical Physics, 2015, 161, 1453-1481. | 0.5 | 3 |
| 601 | A three-dimensional pseudo-potential-based lattice Boltzmann model for multiphase flows with large density ratio and variable surface tension. International Journal of Heat and Fluid Flow, 2015, 56, 261-271. | 1.1 | 102 |
| 602 | Calculation of friction coefficient and analysis of fluid flow in a stepped micro-channel for wide range of Knudsen number using Lattice Boltzmann (MRT) method. Physica A: Statistical Mechanics and Its Applications, 2015, 440, 161-175. | 1.2 | 15 |
| 603 | Two-dimensional characteristic boundary conditions for open boundaries in the lattice Boltzmann methods. Journal of Computational Physics, 2015, 302, 191-199. | 1.9 | 11 |
| 604 | Dynamically adaptive Lattice Boltzmann simulation of shallow water flows with the Peano framework. Applied Mathematics and Computation, 2015, 267, 795-804. | 1.4 | 4 |
| 605 | Lattice Boltzmann simulation of the thermocapillary flow in an annular two liquid layers system with deformable interface. International Communications in Heat and Mass Transfer, 2015, 68, 78-84. | 2.9 | 6 |
| 606 | Study of coupled double diffusive convectionâ€“radiation in a tilted cavity via a hybrid multi-relaxation time-lattice Boltzmann-finite difference and discrete ordinate methods. Heat and Mass Transfer, 2015, 51, 567-586. | 1.2 | 8 |
| 607 | Volume-averaged macroscopic equation for fluid flow in moving porous media. International Journal of Heat and Mass Transfer, 2015, 82, 357-368. | 2.5 | 57 |
| 608 | Numerical investigation of four-lid-driven cavity flow bifurcation using the multiple-relaxation-time lattice Boltzmann method. Computers and Fluids, 2015, 110, 136-151. | 1.3 | 8 |
| 609 | Numerics of the lattice boltzmann method on nonuniform grids: Standard LBM and finite-difference LBM. Computers and Fluids, 2015, 107, 205-213. | 1.3 | 49 |
| 610 | Coarse- and fine-grid numerical behavior of MRT/TRT lattice-Boltzmann schemes in regular and random sphere packings. Journal of Computational Physics, 2015, 281, 708-742. | 1.9 | 109 |
| 611 | Study on grooved wall flow under rarefied condition using the Lattice Boltzmann Method. International Journal of Mechanical Sciences, 2015, 90, 1-5. | 3.6 | 9 |
| 612 | An axisymmetric multiple-relaxation-time lattice Boltzmann scheme. Journal of Computational Physics, 2015, 281, 55-66. | 1.9 | 13 |
| 613 | Enhancing Computational Precision for Lattice Boltzmann Schemes in Porous Media Flows. Computation, 2016, 4, 11. | 1.0 | 13 |
| 614 | Improving the Stability of the Multiple-Relaxation-Time Lattice Boltzmann Method by a Viscosity Counteracting Approach. Advances in Applied Mathematics and Mechanics, 2016, 8, 37-51. | 0.7 | 10 |
| 615 | Numerical simulation of flow over a circular cylinder with a splitter plate near a moving wall. Ocean Engineering, 2016, 122, 162-171. | 1.9 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 616 | Three-dimensional multi-relaxation-time lattice Boltzmann front-tracking method for two-phase flow. Chinese Physics B, 2016, 25, 014702. | 0.7 | 4 |
| 617 | Numerical study of the properties of the central moment lattice Boltzmann method. International Journal for Numerical Methods in Fluids, 2016, 82, 59-90. | 0.9 | 58 |
| 618 | Lattice Boltzmann methods for the simulation of heat transfer in particle suspensions. International Journal of Heat and Fluid Flow, 2016, 62, 150-165. | 1.1 | 16 |
| 619 | Thermodynamics of a real fluid near the critical point in numerical simulations of isotropic turbulence. Physics of Fluids, 2016, 28, . | 1.6 | 9 |
| 620 | Transitional hemodynamics in intracranial aneurysms â€" Comparative velocity investigations with high resolution lattice Boltzmann simulations, normal resolution ANSYS simulations, and MR imaging. Medical Physics, 2016, 43, 6186-6198. | 1.6 | 30 |
| 621 | Cascaded lattice Boltzmann method with improved forcing scheme for large-density-ratio multiphase flow at high Reynolds and Weber numbers. Physical Review E, 2016, 94, 053313. | 0.8 | 48 |
| 622 | Entropic multi-relaxation time lattice Boltzmann model for complex flows. Journal of Fluid Mechanics, 2016, 801, 623-651. | 1.4 | 62 |
| 623 | Active control of vortex-induced vibrations of a circular cylinder using windward-suction-leeward-blowing actuation. Physics of Fluids, 2016, 28, . | 1.6 | 59 |
| 624 | Characterising the Behaviour of Hydraulic Fracturing Fluids via Direct Numerical Simulation. , 2016, , . | | 1 |
| 625 | Recovering the full Navier Stokes equations with lattice Boltzmann schemes. AIP Conference Proceedings, 2016, , . | 0.3 | 2 |
| 626 | Evolution of an elliptic vortex ring in a viscous fluid. Physics of Fluids, 2016, 28, . | 1.6 | 38 |
| 627 | A Multiple-Relaxation-Time Lattice Boltzmann Model for General Nonlinear Anisotropic Convectionâ€"Diffusion Equations. Journal of Scientific Computing, 2016, 69, 355-390. | 1.1 | 122 |
| 628 | A mass-conserving lattice Boltzmann method with dynamic grid refinement for immiscible two-phase flows. Journal of Computational Physics, 2016, 315, 434-457. | 1.9 | 116 |
| 629 | Total enthalpy-based lattice Boltzmann method with adaptive mesh refinement for solid-liquid phase change. Journal of Computational Physics, 2016, 315, 65-83. | 1.9 | 55 |
| 630 | Lattice Boltzmann flux scheme for the convectionâ€"diffusion equation and its applications. Computers and Mathematics With Applications, 2016, 72, 48-63. | 1.4 | 11 |
| 631 | A decoupling multiple-relaxation-time lattice Boltzmann flux solver for non-Newtonian power-law fluid flows. Journal of Non-Newtonian Fluid Mechanics, 2016, 235, 20-28. | 1.0 | 24 |
| 632 | 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. | 2.5 | 92 |
| 633 | High density ratio lattice Boltzmann method simulations of multicomponent multiphase transport of H2O in air. Computers and Fluids, 2016, 131, 81-90. | 1.3 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 634 | A multiple relaxation time extension of the constant speed kinetic model. International Journal of Modern Physics C, 2016, 27, 1650088. | 0.8 | 5 |
| 635 | Regularized lattice Boltzmann model for double-diffusive convection in vertical enclosures with heating and salting from below. Applied Thermal Engineering, 2016, 103, 365-376. | 3.0 | 19 |
| 636 | Numerical study of laminar mixed convection in a square open cavity. International Journal of Heat and Mass Transfer, 2016, 99, 599-612. | 2.5 | 21 |
| 637 | Pinningâ€“Depinning Mechanism of the Contact Line during Evaporation on Chemically Patterned Surfaces: A Lattice Boltzmann Study. Langmuir, 2016, 32, 9389-9396. | 1.6 | 106 |
| 638 | Pore-scale geometry effects on gas permeability in shale. Journal of Natural Gas Science and Engineering, 2016, 34, 948-957. | 2.1 | 58 |
| 639 | Two-dimensional simulation of intermediate-sized bubbles in low viscous liquids using counter diffusion lattice Boltzmann method. Nuclear Engineering and Design, 2016, 305, 547-558. | 0.8 | 2 |
| 640 | Third-order analysis of pseudopotential lattice Boltzmann model for multiphase flow. Journal of Computational Physics, 2016, 327, 121-139. | 1.9 | 59 |
| 641 | An implicit block LU-SGS finite-volume lattice-Boltzmann scheme for steady flows on arbitrary unstructured meshes. Journal of Computational Physics, 2016, 327, 503-518. | 1.9 | 19 |
| 642 | A lattice Boltzmann method for axisymmetric multicomponent flows with high viscosity ratio. Journal of Computational Physics, 2016, 327, 873-893. | 1.9 | 44 |
| 643 | Stabilizing the thermal lattice Boltzmann method by spatial filtering. Physical Review E, 2016, 94, 043302. | 0.8 | 0 |
| 644 | Parallel computation of turbulent flows using moment base lattice Boltzmann method. International Journal of Computational Fluid Dynamics, 2016, 30, 363-369. | 0.5 | 10 |
| 645 | Numerical investigation on characteristic flow regions for three staggered stationary circular cylinders. European Journal of Mechanics, B/Fluids, 2016, 60, 48-61. | 1.2 | 17 |
| 646 | Double MRT thermal lattice Boltzmann method for simulating natural convection of low Prandtl number fluids. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 1889-1909. | 1.6 | 16 |
| 647 | Consistent lattice Boltzmann methods for incompressible axisymmetric flows. Physical Review E, 2016, 94, 023302. | 0.8 | 12 |
| 648 | Lattice Boltzmann simulations of axisymmetric natural convection with anisotropic thermal diffusion. International Journal of Heat and Mass Transfer, 2016, 101, 1304-1315. | 2.5 | 14 |
| 649 | Non-orthogonal multiple-relaxation-time lattice Boltzmann method for incompressible thermal flows. International Journal of Heat and Mass Transfer, 2016, 102, 1334-1344. | 2.5 | 45 |
| 650 | Extended application of lattice Boltzmann method to rarefied gas flow in micro-channels. Physica A: Statistical Mechanics and Its Applications, 2016, 463, 25-36. | 1.2 | 36 |
| 651 | Terminal shape and velocity of a rising bubble by phase-field-based incompressible Lattice Boltzmann model. Advances in Water Resources, 2016, 97, 100-109. | 1.7 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 652 | Generalizing the Boltzmann equation in complex phase space. Physical Review E, 2016, 94, 023316. | 0.8 | 4 |
| 653 | Multiple-relaxation-time color-gradient lattice Boltzmann model for simulating two-phase flows with high density ratio. Physical Review E, 2016, 94, 023310. | 0.8 | 97 |
| 654 | Three-dimensional lattice Boltzmann simulation of suspensions containing both micro- and nanoparticles. International Journal of Heat and Fluid Flow, 2016, 62, 560-567. | 1.1 | 17 |
| 655 | An overview of boundary implementation in lattice Boltzmann method for computational heat and mass transfer. International Communications in Heat and Mass Transfer, 2016, 78, 1-12. | 2.9 | 40 |
| 656 | A hydrodynamically-consistent MRT lattice Boltzmann model on a 2D rectangular grid. Journal of Computational Physics, 2016, 326, 893-912. | 1.9 | 18 |
| 657 | Moment-based boundary conditions for lattice Boltzmann simulations of natural convection in cavities. Progress in Computational Fluid Dynamics, 2016, 16, 216. | 0.1 | 14 |
| 658 | Gas flow through rough microchannels in the transition flow regime. Physical Review E, 2016, 93, 013128. | 0.8 | 29 |
| 659 | Lattice Boltzmann modeling of three-phase incompressible flows. Physical Review E, 2016, 93, 013308. | 0.8 | 94 |
| 660 | Theory of the Lattice Boltzmann method: Derivation of macroscopic equations via the Maxwell iteration. Physical Review E, 2016, 93, 033310. | 0.8 | 41 |
| 661 | Lattice Boltzmann simulation of the gas-solid adsorption process in reconstructed random porous media. Physical Review E, 2016, 93, 043101. | 0.8 | 51 |
| 662 | Discrete effect on the halfway bounce-back boundary condition of multiple-relaxation-time lattice Boltzmann model for convection-diffusion equations. Physical Review E, 2016, 93, 043311. | 0.8 | 38 |
| 663 | Field-wide flow simulation in fractured porous media within lattice Boltzmann framework. Advances in Water Resources, 2016, 96, 170-179. | 1.7 | 4 |
| 664 | Improving lattice Boltzmann simulation of moving particles in a viscous flow using local grid refinement. Computers and Fluids, 2016, 136, 228-246. | 1.3 | 6 |
| 665 | Lattice Boltzmann simulation of three-dimensional Rayleigh-Taylor instability. Physical Review E, 2016, 93, 033113. | 0.8 | 51 |
| 666 | Crystallographic Lattice Boltzmann Method. Scientific Reports, 2016, 6, 27172. | 1.6 | 26 |
| 667 | Numerical study of bifurcating flow through sudden expansions: effect of divergence and geometric asymmetry. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2016, 8, 259-273. | 0.7 | 6 |
| 668 | Revised Chapman-Enskog analysis for a class of forcing schemes in the lattice Boltzmann method. Physical Review E, 2016, 94, 043313. | 0.8 | 18 |
| 669 | A PRECISE FREE SURFACE SIMULATION BY LATTICE BOLTZMANN METHOD WITH THE MULTIPLE RELAXATION TIME MODEL. Journal of Japan Society of Civil Engineers Ser B2 (Coastal Engineering), 2016, 72, I_253-I_258. | 0.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 670 | Three-dimensional simulations of Bingham plastic flows with the multiple-relaxation-time lattice Boltzmann model. Engineering Applications of Computational Fluid Mechanics, 2016, 10, 346-358. | 1.5 | 13 |
| 671 | Three-dimensional phase-field lattice Boltzmann model for incompressible multiphase flows. Journal of Computational Science, 2016, 17, 340-356. | 1.5 | 14 |
| 672 | An adaptive lattice Boltzmann scheme for modeling twoâ€fluidâ€phase flow in porous medium systems. Water Resources Research, 2016, 52, 2601-2617. | 1.7 | 9 |
| 673 | Comparison of wake structures and force measurements behind three side-by-side cylinders. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 843-858. | 0.8 | 30 |
| 674 | Analysis of electro-osmotic flow in a microchannel with undulated surfaces. Computers and Fluids, 2016, 124, 237-245. | 1.3 | 16 |
| 675 | Electromagnetic excitation of particle suspensions in hydraulic fractures using a coupled lattice Boltzmann-discrete element model. Computational Particle Mechanics, 2016, 3, 125-140. | 1.5 | 10 |
| 676 | Transitions in the unsteady wakes and aerodynamic characteristics of the flow past three square cylinders aligned inline. Aerospace Science and Technology, 2016, 50, 96-111. | 2.5 | 32 |
| 677 | Linear and non-linear Robin boundary conditions for thermal lattice Boltzmann method: cases of convective and radiative heat transfer at interfaces. International Journal of Heat and Mass Transfer, 2016, 95, 927-935. | 2.5 | 11 |
| 678 | Derivation and analysis of Lattice Boltzmann schemes for the linearized Euler equations. Computers and Mathematics With Applications, 2016, 72, 311-327. | 1.4 | 5 |
| 679 | Multiphase lattice Boltzmann simulations for porous media applications. Computational Geosciences, 2016, 20, 777-805. | 1.2 | 296 |
| 680 | Control of wakes and vortex-induced vibrations of a single circular cylinder using synthetic jets. Journal of Fluids and Structures, 2016, 60, 160-179. | 1.5 | 87 |
| 681 | Peristaltic flow of Bingham fluids at large Reynolds numbers: A numerical study. Journal of Non-Newtonian Fluid Mechanics, 2016, 227, 30-44. | 1.0 | 32 |
| 682 | A modified lattice Bhatnagarâ€“Grossâ€“Krook model for convection heat transfer in porous media. International Journal of Heat and Mass Transfer, 2016, 94, 269-291. | 2.5 | 46 |
| 683 | Anisotropic thermal lattice Boltzmann simulation of 2D natural convection in a square cavity. Computers and Fluids, 2016, 124, 278-287. | 1.3 | 25 |
| 684 | Lattice Boltzmann methods for multiphase flow and phase-change heat transfer. Progress in Energy and Combustion Science, 2016, 52, 62-105. | 15.8 | 689 |
| 685 | Double MRT thermal lattice Boltzmann simulation for MHD natural convection of nanofluids in an inclined cavity with four square heat sources. International Journal of Heat and Mass Transfer, 2016, 94, 87-100. | 2.5 | 80 |
| 686 | Simulation of a suspended droplet under evaporation with Marangoni effects. International Journal of Heat and Mass Transfer, 2016, 97, 853-860. | 2.5 | 16 |
| 687 | Natural Convection Heat Transfer of a Nanofluid into a Cubical Enclosure: Lattice Boltzmann Investigation. Arabian Journal for Science and Engineering, 2016, 41, 1969-1980. | 1.1 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 688 | Transitional flow in intracranial aneurysms â€“ A space and time refinement study below the Kolmogorov scales using Lattice Boltzmann Method. Computers and Fluids, 2016, 127, 36-46. | 1.3 | 22 |
| 689 | Analysis of the accuracy and pressure oscillation of the lattice Boltzmann method for fluidâ€“solid interactions. Computers and Fluids, 2016, 129, 33-52. | 1.3 | 13 |
| 690 | Simulation on Thermocapillary-Driven Drop Coalescence by Hybrid Lattice Boltzmann Method. Microgravity Science and Technology, 2016, 28, 67-77. | 0.7 | 16 |
| 691 | Lattice Boltzmann method simulation of 3-D natural convection with double MRT model. International Journal of Heat and Mass Transfer, 2016, 94, 222-238. | 2.5 | 65 |
| 692 | The lattice Boltzmann method for isothermal micro-gaseous flow and its application in shale gas flow: A review. International Journal of Heat and Mass Transfer, 2016, 95, 94-108. | 2.5 | 123 |
| 693 | Permeability of high-Kn real gas flow in shale and production prediction by pore-scale modeling. Journal of Natural Gas Science and Engineering, 2016, 28, 328-337. | 2.1 | 40 |
| 694 | Application and accuracy issues of TRT lattice Boltzmann method for solving elliptic PDEs commonly encountered in heat transfer and fluid flow problems. International Journal of Thermal Sciences, 2016, 100, 185-201. | 2.6 | 10 |
| 695 | New thermal MRT lattice Boltzmann method for simulations of convective flows. International Journal of Thermal Sciences, 2016, 100, 98-107. | 2.6 | 36 |
| 696 | Lattice Boltzmann simulation of two cold particles settling in Newtonian fluid with thermal convection. International Journal of Heat and Mass Transfer, 2016, 93, 477-490. | 2.5 | 30 |
| 697 | 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. | 1.4 | 70 |
| 698 | Intercomparison of 3D pore-scale flow and solute transport simulation methods. Advances in Water Resources, 2016, 95, 176-189. | 1.7 | 105 |
| 699 | High-order lattice-Boltzmann. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 1401-1419. | 0.8 | 10 |
| 700 | An efficient immersed boundary-lattice Boltzmann flux solver for simulation of 3D incompressible flows with complex geometry. Computers and Fluids, 2016, 124, 54-66. | 1.3 | 29 |
| 701 | Numerical investigation of vortex suppression regions for three staggered circular cylinders. European Journal of Mechanics, B/Fluids, 2016, 55, 207-214. | 1.2 | 16 |
| 702 | Reassessing the single relaxation time Lattice Boltzmann method for the simulation of Darcyâ€™s flows. International Journal of Modern Physics C, 2016, 27, 1650037. | 0.8 | 23 |
| 703 | Lattice Boltzmann method for Oldroyd-B fluids. Computers and Fluids, 2016, 124, 190-196. | 1.3 | 21 |
| 704 | Lattice Boltzmann modeling of self-propelled Leidenfrost droplets on ratchet surfaces. Soft Matter, 2016, 12, 302-312. | 1.2 | 57 |
| 705 | Lattice Boltzmann Model Using Two Relaxation Times for Shallow-Water Equations. Journal of Hydraulic Engineering, 2016, 142, . | 0.7 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 706 | Numerical investigation of a gasâ€“solid turbulent jet flow with Reynolds number of 4500 using lattice Boltzmann method. Applied Mathematical Modelling, 2016, 40, 565-577. | 2.2 | 6 |
| 707 | Designing correct fluid hydrodynamics on a rectangular grid using MRT lattice Boltzmann approach. Computers and Mathematics With Applications, 2016, 72, 288-310. | 1.4 | 15 |
| 708 | Numerical investigation of wake modes for flow past three tandem cylinders using the multi-relaxation-time lattice Boltzmann method for different gap spacings. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 799-812. | 0.8 | 17 |
| 709 | Simulation of real time particle deposition and removal processes on tubes by coupled numerical method. Applied Energy, 2017, 185, 2181-2193. | 5.1 | 57 |
| 710 | A Unified Detail-Preserving Liquid Simulation by Two-Phase Lattice Boltzmann Modeling. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1479-1491. | 2.9 | 14 |
| 711 | Lattice Boltzmann model approximated with finite difference expressions. Computers and Fluids, 2017, 155, 3-8. | 1.3 | 7 |
| 712 | Diffuse interface modeling of three-phase contact line dynamics on curved boundaries: A lattice Boltzmann model for large density and viscosity ratios. Journal of Computational Physics, 2017, 334, 620-638. | 1.9 | 120 |
| 713 | Low- and high-order accurate boundary conditions: From Stokes to Darcy porous flow modeled with standard and improved Brinkman lattice Boltzmann schemes. Journal of Computational Physics, 2017, 335, 50-83. | 1.9 | 27 |
| 714 | A modified lattice Bhatnagar-Gross-Krook model for axisymmetric thermal flow. International Journal of Heat and Mass Transfer, 2017, 108, 691-702. | 2.5 | 3 |
| 715 | Numerical modelling of backward front propagation in piping erosion by DEM-LBM coupling. European Journal of Environmental and Civil Engineering, 2017, 21, 960-987. | 1.0 | 36 |
| 716 | Issues associated with Galilean invariance on a moving solid boundary in the lattice Boltzmann method. Physical Review E, 2017, 95, 013301. | 0.8 | 9 |
| 717 | 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. | 2.5 | 23 |
| 718 | A modified double distribution lattice Boltzmann model for axisymmetric thermal flow. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1150-1157. | 0.9 | 5 |
| 719 | Adaptive filtering for the lattice Boltzmann method. Journal of Computational Physics, 2017, 333, 212-226. | 1.9 | 14 |
| 720 | In situ contact angle measurements of liquid CO2, brine, and Mount Simon sandstone core using micro X-ray CT imaging, sessile drop, and Lattice Boltzmann modeling. Journal of Petroleum Science and Engineering, 2017, 155, 3-10. | 2.1 | 28 |
| 721 | Gas Migration in Highly Water-Saturated Opalinus Clay Microfractures Using a Two-Phase TRT LBM. Transport in Porous Media, 2017, 116, 975-1003. | 1.2 | 7 |
| 722 | An efficient Discrete Element Lattice Boltzmann model for simulation of particle-fluid, particle-particle interactions. Computers and Fluids, 2017, 147, 63-71. | 1.3 | 33 |
| 723 | Benchmark computations for 3D two-phase flows: A coupled lattice Boltzmann-level set study. Computers and Mathematics With Applications, 2017, 73, 520-536. | 1.4 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 724 | Finite Difference-Based Cellular Automaton Technique for Structural and Fluidâ€“Structure Interaction Applications. Journal of Pressure Vessel Technology, Transactions of the ASME, 2017, 139, . | 0.4 | 7 |
| 725 | Lattice Boltzmann simulations of oscillating-grid turbulence. Journal of Hydrodynamics, 2017, 29, 68-74. | 1.3 | 5 |
| 726 | Efficient numerical simulation of injection mold filling with the lattice Boltzmann method. Engineering Computations, 2017, 34, 307-329. | 0.7 | 7 |
| 727 | Semi-Lagrangian off-lattice Boltzmann method for weakly compressible flows. Physical Review E, 2017, 95, 023305. | 0.8 | 46 |
| 728 | A matrix-free, implicit finite volume lattice Boltzmann method for steady flows. Computers and Fluids, 2017, 148, 157-165. | 1.3 | 2 |
| 729 | Accelerated lattice Boltzmann simulation using GPU and OpenACC with data management. International Journal of Heat and Mass Transfer, 2017, 109, 577-588. | 2.5 | 108 |
| 730 | Lattice Boltzmann simulations of three-dimensional incompressible flows in a four-sided lid driven cavity. Fluid Dynamics Research, 2017, 49, 025507. | 0.6 | 1 |
| 731 | An efficient phase-field-based multiple-relaxation-time lattice Boltzmann model for three-dimensional multiphase flows. Computers and Mathematics With Applications, 2017, 73, 1524-1538. | 1.4 | 28 |
| 732 | Lattice Boltzmann Simulation of Wormhole Propagation in Carbonate Acidizing. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, . | 1.4 | 9 |
| 733 | Multi-relaxation-time lattice Boltzmann simulations of lid driven flows using graphics processing unit. Applied Mathematics and Mechanics (English Edition), 2017, 38, 707-722. | 1.9 | 3 |
| 734 | Lattice <scp>B</scp>oltzmann simulation of immiscible twoâ€phase flow with capillary valve effect in porous media. Water Resources Research, 2017, 53, 3770-3790. | 1.7 | 98 |
| 735 | An Alternative Lattice Boltzmann Model for Incompressible Flows and its Stabilization. Communications in Computational Physics, 2017, 21, 443-465. | 0.7 | 7 |
| 736 | Relative permeability of two immiscible fluids flowing through porous media determined by lattice Boltzmann method. International Communications in Heat and Mass Transfer, 2017, 85, 53-61. | 2.9 | 51 |
| 737 | High-order regularization in lattice-Boltzmann equations. Physics of Fluids, 2017, 29, . | 1.6 | 66 |
| 738 | Three dimensional lattice Boltzmann simulation for mixed convection of nanofluids in the presence of magnetic field. International Communications in Heat and Mass Transfer, 2017, 80, 1-9. | 2.9 | 26 |
| 739 | Regularized characteristic boundary conditions for the Lattice-Boltzmann methods at high Reynolds number flows. Journal of Computational Physics, 2017, 331, 1-18. | 1.9 | 14 |
| 740 | Numerical investigation of heat transfer enhancement in electro-thermo-convection in a square enclosure with an inner circular cylinder. International Journal of Heat and Mass Transfer, 2017, 113, 1070-1085. | 2.5 | 56 |
| 741 | Lattice Boltzmann models for axisymmetric solidâ€“liquid phase change. International Journal of Heat and Mass Transfer, 2017, 112, 795-804. | 2.5 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 742 | Double MRT lattice Boltzmann model for axisymmetric convective flow in porous media. International Journal of Heat and Mass Transfer, 2017, 112, 810-813. | 2.5 | 10 |
| 743 | Finite-difference lattice Boltzmann model for nonlinear convection-diffusion equations. Applied Mathematics and Computation, 2017, 309, 334-349. | 1.4 | 33 |
| 744 | Effect of collision and velocity model of lattice Boltzmann model on three-dimensional turbulent flow simulation. International Journal of Computational Fluid Dynamics, 2017, 31, 258-268. | 0.5 | 4 |
| 745 | A hybrid multi-time-step framework for pore-scale and continuum-scale modeling of solute transport in porous media. Computer Methods in Applied Mechanics and Engineering, 2017, 323, 98-131. | 3.4 | 3 |
| 746 | Three-dimensional simplified and unconditionally stable lattice Boltzmann method for incompressible isothermal and thermal flows. Physics of Fluids, 2017, 29, 053601. | 1.6 | 27 |
| 747 | New Cascaded Thermal Lattice Boltzmann Method for simulations of advection-diffusion and convective heat transfer. International Journal of Thermal Sciences, 2017, 118, 259-277. | 2.6 | 26 |
| 748 | Lattice-Boltzmann lattice-spring simulations of flexibility and inertial effects on deformation and cruising reversal of self-propelled flexible swimming bodies. Computers and Fluids, 2017, 155, 89-102. | 1.3 | 11 |
| 749 | 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. | 2.5 | 78 |
| 750 | A weighted multiple-relaxation-time lattice Boltzmann method for multiphase flows and its application to partial coalescence cascades. Journal of Computational Physics, 2017, 341, 22-43. | 1.9 | 77 |
| 751 | Lattice-Boltzmann lattice-spring simulations of influence of deformable blockages on blood fluids in an elastic vessel. Computers and Fluids, 2017, 155, 103-111. | 1.3 | 14 |
| 752 | Mathematical modeling and optimal control problems in brain tumor targeted drug delivery strategies. International Journal of Biomathematics, 2017, 10, 1750056. | 1.5 | 8 |
| 753 | Droplet migration on hydrophobicâ€“hydrophilic hybrid surfaces: a lattice Boltzmann study. RSC Advances, 2017, 7, 14701-14708. | 1.7 | 21 |
| 754 | 2D and 3D lattice Boltzmann simulation for natural convection melting. International Journal of Thermal Sciences, 2017, 117, 239-250. | 2.6 | 32 |
| 755 | Numerical study on the sedimentation of single and multiple slippery particles in a Newtonian fluid. Powder Technology, 2017, 315, 126-138. | 2.1 | 25 |
| 756 | Analysis and numerical tests of lifting relations to reconstruct LBM distribution functions for coupling simulations. International Journal of Heat and Mass Transfer, 2017, 107, 945-955. | 2.5 | 7 |
| 757 | An efficient unified iterative scheme for moving boundaries in lattice Boltzmann method. Computers and Fluids, 2017, 144, 34-43. | 1.3 | 18 |
| 758 | Lattice Boltzmann models for the convection-diffusion equation: D2Q5 vs D2Q9. International Journal of Heat and Mass Transfer, 2017, 108, 41-62. | 2.5 | 108 |
| 759 | A Simplified Lattice Boltzmann Method without Evolution of Distribution Function. Advances in Applied Mathematics and Mechanics, 2017, 9, 1-22. | 0.7 | 68 |

| # | Article | IF | Citations |
|---|---|---|---|
| 760 | Hermite regularization of the lattice Boltzmann method for open source computational aeroacoustics. Journal of the Acoustical Society of America, 2017, 142, 2332-2345. | 0.5 | 26 |
| 761 | Threeâ€“dimensional lattice Boltzmann models for solidâ€“liquid phase change. International Journal of Heat and Mass Transfer, 2017, 115, 1334-1347. | 2.5 | 45 |
| 762 | Improved locality of the phase-field lattice-Boltzmann model for immiscible fluids at high density ratios. Physical Review E, 2017, 96, 053301. | 0.8 | 122 |
| 763 | Study on Câ€“S and Pâ€“R EOS in pseudo-potential lattice Boltzmann model for two-phase flows. International Journal of Modern Physics C, 2017, 28, 1750120. | 0.8 | 8 |
| 764 | Cascaded collision lattice Boltzmann model (CLBM) for simulating fluid and heat transport in porous media. Numerical Heat Transfer, Part B: Fundamentals, 2017, 72, 211-232. | 0.6 | 14 |
| 765 | Modelling of immiscible liquid-liquid systems by Smoothed Particle Hydrodynamics. Journal of Colloid and Interface Science, 2017, 508, 567-574. | 5.0 | 6 |
| 766 | Accuracy and Numerical Stabilty Analysis of Lattice Boltzmann Method with Multiple Relaxation Time for Incompressible Flows. Journal of Physics: Conference Series, 2017, 877, 012035. | 0.3 | 4 |
| 767 | Investigation of droplet evaporation on heterogeneous surfaces using a three-dimensional thermal multiphase lattice Boltzmann model. Applied Thermal Engineering, 2017, 127, 1346-1354. | 3.0 | 51 |
| 768 | References and benchmarks for pore-scale flow simulated using micro-CT images of porous media and digital rocks. Advances in Water Resources, 2017, 109, 211-235. | 1.7 | 100 |
| 769 | Lattice Boltzmann Simulations of Cavity Flows on Graphic Processing Unit with Memory Management. Journal of Mechanics, 2017, 33, 863-871. | 0.7 | 4 |
| 770 | An iterative source correction based immersed boundary-lattice Boltzmann method for thermal flow simulations. International Journal of Heat and Mass Transfer, 2017, 115, 450-460. | 2.5 | 14 |
| 771 | Consistent lattice Boltzmann modeling of low-speed isothermal flows at finite Knudsen numbers in slip-flow regime: Application to plane boundaries. Physical Review E, 2017, 96, 013311. | 0.8 | 26 |
| 772 | Transition Flow with an Incompressible Lattice Boltzmann Method. Advances in Applied Mathematics and Mechanics, 2017, 9, 1271-1288. | 0.7 | 7 |
| 773 | Experimental and pore-level numerical investigation of water evaporation in gas diffusion layers of polymer electrolyte fuel cells. International Journal of Heat and Mass Transfer, 2017, 115, 238-249. | 2.5 | 42 |
| 774 | Effect of image segmentation & voxel size on micro-CT computed effective transport & elastic properties. Marine and Petroleum Geology, 2017, 86, 972-990. | 1.5 | 110 |
| 775 | A lattice Boltzmann model for interphase conjugate heat transfer. Numerical Heat Transfer, Part B: Fundamentals, 2017, 72, 130-151. | 0.6 | 4 |
| 776 | Lattice Boltzmann modeling and simulation of liquid jet breakup. Physical Review E, 2017, 96, 013317. | 0.8 | 46 |
| 777 | Control of vortex-induced vibration using a pair of synthetic jets: Influence of active lock-on. Physics of Fluids, 2017, 29, . | 1.6 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 778 | Enthalpy-based multiple-relaxation-time lattice Boltzmann method for solid-liquid phase-change heat transfer in metal foams. Physical Review E, 2017, 96, 023303. | 0.8 | 24 |
| 779 | Maxwell iteration for the lattice Boltzmann method with diffusive scaling. Physical Review E, 2017, 95, 033311. | 0.8 | 25 |
| 780 | Study on multicomponent pseudo-potential model with large density ratio and heat transfer. International Communications in Heat and Mass Transfer, 2017, 87, 183-191. | 2.9 | 19 |
| 781 | Improved thermal lattice Boltzmann model for simulation of liquid-vapor phase change. Physical Review E, 2017, 96, 063303. | 0.8 | 94 |
| 782 | Novel hybrid lattice Boltzmann technique with TVD characteristics for simulation of heat transfer and entropy generations of MHD and natural convection in a cavity. Numerical Heat Transfer, Part B: Fundamentals, 2017, 72, 431-449. | 0.6 | 10 |
| 783 | Multiple-relaxation-time lattice Boltzmann study of the magnetic field effects on natural convection of non-Newtonian fluids. International Journal of Modern Physics C, 2017, 28, 1750138. | 0.8 | 7 |
| 784 | Kelvin-Helmholtz instability of the Dirac fluid of charge carriers on graphene. Physical Review B, 2017, 96, . | 1.1 | 18 |
| 785 | Consistent forcing scheme in the cascaded lattice Boltzmann method. Physical Review E, 2017, 96, 053307. | 0.8 | 57 |
| 786 | Benchmarking of three-dimensional multicomponent lattice Boltzmann equation. Physical Review E, 2017, 96, 053308. | 0.8 | 6 |
| 787 | Lattice Boltzmann model capable of mesoscopic vorticity computation. Physical Review E, 2017, 96, 053304. | 0.8 | 8 |
| 788 | Impact of the kinetic boundary condition on porous media flow in the lattice Boltzmann formulation. Physical Review E, 2017, 96, 013303. | 0.8 | 10 |
| 789 | Numerical analysis of the lattice Boltzmann method for simulation of linear acoustic waves. Physical Review E, 2017, 95, 043306. | 0.8 | 11 |
| 790 | Discrete modelling of front propagation in backward piping erosion. EPJ Web of Conferences, 2017, 140, 09036. | 0.1 | 2 |
| 791 | Viscoinertial regime of immersed granular flows. Physical Review E, 2017, 96, 012901. | 0.8 | 59 |
| 792 | Topology optimization method for interior flow based on transient information of the lattice Boltzmann method with a level-set function. Japan Journal of Industrial and Applied Mathematics, 2017, 34, 611-632. | 0.5 | 8 |
| 793 | Chemical-potential-based lattice Boltzmann method for nonideal fluids. Physical Review E, 2017, 95, 063305. | 0.8 | 38 |
| 794 | Cessation of Darcy regime in gas flow through porous media using LBM: Comparison of pressure gradient approaches. Journal of Natural Gas Science and Engineering, 2017, 45, 693-705. | 2.1 | 11 |
| 795 | Single-node second-order boundary schemes for the lattice Boltzmann method. Journal of Computational Physics, 2017, 329, 1-15. | 1.9 | 53 |

| # | Article | IF | Citations |
|---|---|---|---|
| 796 | Boundary Conditions for Fluid-Structure Interaction. Graduate Texts in Physics, 2017, , 433-491. | 0.1 | 0 |
| 797 | Analysis of the Lattice Boltzmann Equation. Graduate Texts in Physics, 2017, , 105-152. | 0.1 | 2 |
| 798 | Boundary and Initial Conditions. Graduate Texts in Physics, 2017, , 153-230. | 0.1 | 1 |
| 799 | MRT and TRT Collision Operators. Graduate Texts in Physics, 2017, , 407-431. | 0.1 | 1 |
| 800 | Sound Waves. Graduate Texts in Physics, 2017, , 493-529. | 0.1 | 1 |
| 801 | A two-dimensional IB-LBM framework combined with re-tailored RCVM for assessing the rotation intensity of a tornadic wind over a building configuration. Engineering Structures, 2017, 131, 57-68. | 2.6 | 1 |
| 802 | Direct numerical simulation of transitional hydrodynamics of the cerebrospinal fluid in Chiari I malformation: The role of cranioâ€vertebral junction. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e02853. | 1.0 | 18 |
| 803 | Buckling induced delamination and microflow analysis of film/substrate system. Composite Structures, 2017, 161, 8-14. | 3.1 | 10 |
| 804 | Drag correlation for micro spherical particles at finite Reynolds and Knudsen numbers by lattice Boltzmann simulations. Journal of Aerosol Science, 2017, 103, 105-116. | 1.8 | 18 |
| 805 | Lattice Boltzmann simulations of convection heat transfer in porous media. Physica A: Statistical Mechanics and Its Applications, 2017, 465, 742-753. | 1.2 | 47 |
| 806 | A lattice Boltzmann method for axisymmetric thermocapillary flows. International Journal of Heat and Mass Transfer, 2017, 104, 337-350. | 2.5 | 46 |
| 807 | Direct numerical simulations of particle sedimentation with heat transfer using the Lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2017, 104, 419-437. | 2.5 | 8 |
| 808 | Estimation of Permeability of Porous Material Using Pore Scale LBM Simulations. Lecture Notes in Mechanical Engineering, 2017, , 1381-1388. | 0.3 | 4 |
| 809 | Lattice Boltzmann methods for global linear instability analysis. Theoretical and Computational Fluid Dynamics, 2017, 31, 643-664. | 0.9 | 14 |
| 810 | Numerical investigation of flow around square cylinder with an upstream control plate at low Reynolds numbers in tandem. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 1201-1223. | 0.8 | 7 |
| 811 | Pore-scale study on reactive mixing of miscible solutions with viscous fingering in porous media. Computers and Fluids, 2017, 155, 146-160. | 1.3 | 24 |
| 812 | A novel lattice Boltzmann model for the solidâ€“liquid phase change with the convection heat transfer in the porous media. International Journal of Heat and Mass Transfer, 2017, 104, 675-687. | 2.5 | 36 |
| 813 | Stability limits of the single relaxation-time advectionâ€“diffusion lattice Boltzmann scheme. International Journal of Modern Physics C, 2017, 28, 1750141. | 0.8 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 814 | Combined immersed boundary method and multiple-relaxation-time lattice Boltzmann flux solver for numerical simulations of incompressible flows. Applied Mathematics and Mechanics (English Edition), 2017, 38, 1679-1696. | 1.9 | 3 |
| 815 | An adaptive mesh refinement-multiphase lattice Boltzmann flux solver for simulation of complex binary fluid flows. Physics of Fluids, 2017, 29, . | 1.6 | 28 |
| 816 | Scaling behavior of immersed granular flows. EPJ Web of Conferences, 2017, 140, 09044. | 0.1 | 0 |
| 817 | The role of fluid viscosity in an immersed granular collapse. EPJ Web of Conferences, 2017, 140, 09037. | 0.1 | 3 |
| 818 | A study of boiling on surfaces with temperature-dependent wettability by lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2018, 122, 775-784. | 2.5 | 29 |
| 819 | Application of the ghost fluid lattice Boltzmann method to moving curved boundaries with constant temperature or heat flux conditions. Computers and Fluids, 2018, 167, 51-65. | 1.3 | 7 |
| 820 | Integer lattice gas with Monte Carlo collision operator recovers the lattice Boltzmann method with Poisson-distributed fluctuations. Physical Review E, 2018, 97, 023310. | 0.8 | 7 |
| 821 | The role of wettability of nonideal nozzle plate: From dropâ€onâ€demand droplet jetting to impact on solid substrate. AICHE Journal, 2018, 64, 2837-2850. | 1.8 | 10 |
| 822 | An alternative method to implement contact angle boundary condition and its application in hybrid lattice-Boltzmann finite-difference simulations of two-phase flows with immersed surfaces. European Physical Journal E, 2018, 41, 17. | 0.7 | 8 |
| 823 | Cascaded lattice Boltzmann method for incompressible thermal flows with heat sources and general thermal boundary conditions. Computers and Fluids, 2018, 165, 89-95. | 1.3 | 24 |
| 824 | Lattice Boltzmann method simulations about shale gas flow in contracting nano-channels. International Journal of Heat and Mass Transfer, 2018, 122, 1210-1221. | 2.5 | 43 |
| 825 | Pseudo-potential MRT - thermal LB simulation of flow boiling in vertical tubes. Heat and Mass Transfer, 2018, 54, 3035-3045. | 1.2 | 2 |
| 826 | Fully dissipative relativistic lattice Boltzmann method in two dimensions. Computers and Fluids, 2018, 172, 318-331. | 1.3 | 14 |
| 827 | Lattice Boltzmann simulation of TiO 2 -water nanofluid in a curved boundary domain at high Rayleigh numbers. Computers and Fluids, 2018, 168, 159-169. | 1.3 | 8 |
| 828 | Improving the stability of multiple-relaxation lattice Boltzmann methods with central moments. Computers and Fluids, 2018, 172, 397-409. | 1.3 | 33 |
| 829 | Inkjet droplet deposition dynamics into square microcavities for OLEDs manufacturing. Microfluidics and Nanofluidics, 2018, 22, 1. | 1.0 | 9 |
| 830 | Heat transfer enhancement using Al 2 O 3 -EG/W(60/40 vol%) in multiple-pipe heat exchanger. Journal of Molecular Liquids, 2018, 261, 319-336. | 2.3 | 28 |
| 831 | Variational inequalityâ€based framework of discontinuous deformation analysis. International Journal for Numerical Methods in Engineering, 2018, 115, 358-394. | 1.5 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 832 | Imaging and computational considerations for image computed permeability: Operating envelope of Digital Rock Physics. Advances in Water Resources, 2018, 116, 127-144. | 1.7 | 66 |
| 833 | Sediment transport in turbulent flows with the lattice Boltzmann method. Computers and Fluids, 2018, 172, 340-351. | 1.3 | 9 |
| 834 | Enhancement of aerodynamic performance of a heaving airfoil using synthetic-jet based active flow control. Bioinspiration and Biomimetics, 2018, 13, 046005. | 1.5 | 11 |
| 835 | Numerical investigation of the accuracy, stability, and efficiency of lattice Boltzmann methods in simulating non-Newtonian flow. Computers and Fluids, 2018, 166, 253-274. | 1.3 | 16 |
| 836 | GPU-accelerated large eddy simulation of stirred tanks. Chemical Engineering Science, 2018, 181, 132-145. | 1.9 | 29 |
| 837 | Fourth order Galilean invariance for the lattice Boltzmann method. Computers and Fluids, 2018, 166, 139-151. | 1.3 | 27 |
| 838 | A comparative study of local and nonlocal Allen-Cahn equations with mass conservation. International Journal of Heat and Mass Transfer, 2018, 122, 631-642. | 2.5 | 77 |
| 839 | Minimized Capillary End Effect During CO<sub>2</sub> Displacement in 2â€Ð Micromodel by Manipulating Capillary Pressure at the Outlet Boundary in Lattice Boltzmann Method. Water Resources Research, 2018, 54, 895-915. | 1.7 | 13 |
| 840 | Lattice Boltzmann simulation of asymptotic longitudinal mass dispersion in reconstructed random porous media. AICHE Journal, 2018, 64, 2770-2780. | 1.8 | 14 |
| 841 | A phase-field lattice Boltzmann model for simulating multiphase flows in porous media: Application and comparison to experiments of CO2 sequestration at pore scale. Advances in Water Resources, 2018, 114, 119-134. | 1.7 | 68 |
| 842 | Coupled GCMC and LBM simulation method for visualizations of CO2/CH4 gas separation through Cu-BTC membranes. Journal of Membrane Science, 2018, 550, 448-461. | 4.1 | 26 |
| 843 | On improvements of simplified and highly stable lattice Boltzmann method: Formulations, boundary treatment, and stability analysis. International Journal for Numerical Methods in Fluids, 2018, 87, 161-179. | 0.9 | 43 |
| 844 | Enhancement of boiling heat transfer using hydrophilic-hydrophobic mixed surfaces: A lattice Boltzmann study. Applied Thermal Engineering, 2018, 132, 490-499. | 3.0 | 86 |
| 845 | Lattice Boltzmann Methods for Bioengineering Applications. , 2018, , 415-429. | | 6 |
| 846 | Pore-Scale Simulation of Shear Thinning Fluid Flow Using Lattice Boltzmann Method. Transport in Porous Media, 2018, 121, 753-782. | 1.2 | 7 |
| 847 | Modeling incompressible thermal flows using a central-moments-based lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2018, 120, 624-634. | 2.5 | 47 |
| 848 | Partial entropic stabilization of lattice Boltzmann magnetohydrodynamics. Physical Review E, 2018, 97, 013302. | 0.8 | 4 |
| 849 | Lattice Boltzmann model for high-order nonlinear partial differential equations. Physical Review E, 2018, 97, 013304. | 0.8 | 29 |

| # | Article | IF | Citations |
|---|---|---|---|
| 850 | Color-gradient lattice Boltzmann modeling of immiscible two-phase flows on partially wetting surfaces. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 416-430. | 1.1 | 11 |
| 851 | Lattice Boltzmann simulations of high-order statistics in isotropic turbulent flows. Applied Mathematics and Mechanics (English Edition), 2018, 39, 21-30. | 1.9 | 5 |
| 852 | General propagation lattice Boltzmann model for nonlinear advection-diffusion equations. Physical Review E, 2018, 97, 043310. | 0.8 | 16 |
| 853 | A modified phase change pseudopotential lattice Boltzmann model. International Journal of Heat and Mass Transfer, 2018, 125, 323-329. | 2.5 | 15 |
| 854 | Unexpected convergence of lattice Boltzmann schemes. Computers and Fluids, 2018, 172, 301-311. | 1.3 | 4 |
| 855 | The computation of strain rate tensor in multiple-relaxation-time lattice Boltzmann model. Computers and Mathematics With Applications, 2018, 75, 2888-2902. | 1.4 | 1 |
| 856 | Drag, lift and torque acting on a two-dimensional non-spherical particle near a wall. Advanced Powder Technology, 2018, 29, 1507-1517. | 2.0 | 15 |
| 857 | Thermal Simulation of the Symmetric and Asymmetric Arrangement of Barriers on Heat Transfer Enhancement in a Porous Gas Heat Exchanger. Journal of Thermal Science and Engineering Applications, 2018, 10, . | 0.8 | 1 |
| 858 | A distributed parallel multiple-relaxation-time lattice Boltzmann method on general-purpose graphics processing units for the rapid and scalable computation of absolute permeability from high-resolution 3D micro-CT images. Computational Geosciences, 2018, 22, 815-832. | 1.2 | 38 |
| 859 | Lattice-Boltzmann lattice-spring simulations of two flexible fibers settling in moderate Reynolds number flows. Computers and Fluids, 2018, 167, 341-358. | 1.3 | 5 |
| 860 | Chapmanâ€“Enskog Analyses on the Gray Lattice Boltzmann Equation Method for Fluid Flow in Porous Media. Journal of Statistical Physics, 2018, 171, 493-520. | 0.5 | 5 |
| 861 | Entropic multiple-relaxation-time multirange pseudopotential lattice Boltzmann model for two-phase flow. Physics of Fluids, 2018, 30, . | 1.6 | 42 |
| 862 | Phase-field-based lattice Boltzmann modeling of large-density-ratio two-phase flows. Physical Review E, 2018, 97, 033309. | 0.8 | 112 |
| 863 | Study of flow over object problems by a nodal discontinuous Galerkin-lattice Boltzmann method. Physics of Fluids, 2018, 30, . | 1.6 | 12 |
| 864 | A lattice Boltzmann model for multiphase flows with moving contact line and variable density. Journal of Computational Physics, 2018, 353, 26-45. | 1.9 | 10 |
| 865 | Lattice Boltzmann simulations of liquid CO2 displacing water in a 2D heterogeneous micromodel at reservoir pressure conditions. Journal of Contaminant Hydrology, 2018, 212, 14-27. | 1.6 | 61 |
| 866 | Numerical study on mass transfer from a composite particle settling in a vertical channel. International Journal of Heat and Mass Transfer, 2018, 117, 132-142. | 2.5 | 2 |
| 867 | Analytical and numerical studies of the boundary slip in the immersed boundaryâ€thermal lattice Boltzmann method. International Journal for Numerical Methods in Fluids, 2018, 86, 454-490. | 0.9 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 868 | Effects of temperature-dependent properties on natural convection of nanofluids in a partially heated cubic enclosure. Applied Thermal Engineering, 2018, 128, 204-213. | 3.0 | 29 |
| 869 | The impact of sample size on transport properties of carbon-paper and carbon-cloth GDLs: Direct simulation using the lattice Boltzmann model. International Journal of Heat and Mass Transfer, 2018, 118, 1325-1339. | 2.5 | 26 |
| 870 | A gas-kinetic BGK scheme for the finite volume lattice Boltzmann method for nearly incompressible flows. Computers and Fluids, 2018, 162, 126-138. | 1.3 | 14 |
| 871 | Direct numerical simulation of turbulent pipe flow using the lattice Boltzmann method. Journal of Computational Physics, 2018, 357, 16-42. | 1.9 | 40 |
| 872 | Lattice Boltzmann Simulation of Mass Transfer Coefficients for Chemically Reactive Flows in Porous Media. Journal of Heat Transfer, 2018, 140, . | 1.2 | 38 |
| 873 | On a two-relaxation-time D2Q9 lattice Boltzmann model for the Navierâ€“Stokes equations. Physica A: Statistical Mechanics and Its Applications, 2018, 492, 1570-1580. | 1.2 | 13 |
| 874 | Phase-Field Modelling in Extractive Metallurgy. Critical Reviews in Solid State and Materials Sciences, 2018, 43, 417-454. | 6.8 | 9 |
| 875 | Regularized lattice Bhatnagarâ€“Grossâ€“Krook model for the thermal flow in porous media. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 405-415. | 1.1 | 2 |
| 876 | Permeability prediction of numerical reconstructed multiscale tight porous media using the representative elementary volume scale lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2018, 118, 368-377. | 2.5 | 37 |
| 877 | Numerical analysis of weld pool behaviors in plasma arc welding with the lattice Boltzmann method. International Journal of Thermal Sciences, 2018, 124, 447-458. | 2.6 | 20 |
| 878 | Problems of Evaporative Convection (Review). Fluid Dynamics, 2018, 53, S69-S102. | 0.2 | 37 |
| 879 | Three-Dimensional Multiple-Relaxation-Time Lattice Boltzmann Simulation of Vapor Condensation on Subcooled Wall. , 2018, , . | | 0 |
| 880 | Actuator-Line Model in a Lattice Boltzmann Framework for Wind Turbine Simulations. Journal of Physics: Conference Series, 2018, 1037, 022023. | 0.3 | 12 |
| 881 | Numerical Investigation of Coalescence-Induced Droplet Jumping from a Hydrophobic Fiber. Langmuir, 2018, 34, 14186-14195. | 1.6 | 8 |
| 882 | Rarefied transitional flow through diverging nano and microchannels: A TRT lattice Boltzmann study. International Journal of Modern Physics C, 2018, 29, 1850117. | 0.8 | 6 |
| 883 | GPU Accelerated Multiple-Relaxation-Time Lattice Boltzmann Simulation of Convective Flows in a Porous Media. Frontiers in Mechanical Engineering, 2018, 4, . | 0.8 | 24 |
| 884 | Higher-order lattice Boltzmann model for thermohydrodynamics. Physical Review E, 2018, 98, . | 0.8 | 26 |
| 886 | Parallel Algorithms of Multi-relaxation-time Lattice Boltzmann Method. Journal of Physics: Conference Series, 2018, 1087, 022024. | 0.3 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 887 | A partial entropic lattice Boltzmann MHD simulation of the Orszagâ€“Tang vortex. Radiation Effects and Defects in Solids, 2018, 173, 55-65. | 0.4 | 3 |
| 888 | Numerical analysis of flow past an elliptic cylinder near a moving wall. Ocean Engineering, 2018, 169, 253-269. | 1.9 | 18 |
| 889 | Numerical investigation of convective dropwise condensation flow by a hybrid thermal lattice Boltzmann method. Applied Thermal Engineering, 2018, 145, 590-602. | 3.0 | 31 |
| 890 | Lattice Boltzmann simulation of electro-hydro-dynamic (EHD) natural convection heat transfer in horizontal cylindrical annuli. International Communications in Heat and Mass Transfer, 2018, 98, 106-115. | 2.9 | 20 |
| 891 | Application of a lattice Boltzmann method to some challenges related to micro-air vehicles. International Journal of Micro Air Vehicles, 2018, 10, 285-299. | 1.0 | 14 |
| 892 | Gas permeability calculation of tight rocks based on laboratory measurements with non-ideal gas slippage and poroelastic effects considered. International Journal of Rock Mechanics and Minings Sciences, 2018, 112, 16-24. | 2.6 | 14 |
| 893 | Lattice Boltzmann simulation of tree-shaped fins enhanced melting heat transfer. Numerical Heat Transfer; Part A: Applications, 2018, 74, 1228-1243. | 1.2 | 12 |
| 894 | Prediction of immiscible two-phase flow properties in a two-dimensional Berea sandstone using the pore-scale lattice Boltzmann simulation. European Physical Journal E, 2018, 41, 124. | 0.7 | 23 |
| 895 | Lattice kinetic scheme for the Navier-Stokes equations coupled with convection-diffusion equations. Physical Review E, 2018, 98, . | 0.8 | 12 |
| 896 | Assessing moment-based boundary conditions for the lattice Boltzmann equation: A study of dipole-wall collisions. Computers and Fluids, 2018, 176, 79-96. | 1.3 | 16 |
| 897 | Lattice Boltzmann simulation of droplets coalescence in a film patterning process on nonideal surfaces. Computers and Fluids, 2018, 176, 68-78. | 1.3 | 6 |
| 898 | Double MRT Lattice Boltzmann simulation of 3-D MHD natural convection in a cubic cavity with sinusoidal temperature distribution utilizing nanofluid. International Journal of Heat and Mass Transfer, 2018, 126, 489-503. | 2.5 | 86 |
| 899 | Thermal effects on the sedimentation behavior of elliptical particles. International Journal of Heat and Mass Transfer, 2018, 126, 753-764. | 2.5 | 40 |
| 900 | Numerical investigation of dilute aerosol particle transport and deposition in oscillating multi-cylinder obstructions. Advanced Powder Technology, 2018, 29, 2003-2018. | 2.0 | 13 |
| 901 | Eliminating cubic terms in the pseudopotential lattice Boltzmann model for multiphase flow. Physical Review E, 2018, 97, 053308. | 0.8 | 28 |
| 902 | Numerical Method of Weakly Compressible Poiseuille Flow Using Lattice Boltzmann Method. Defect and Diffusion Forum, 2018, 384, 99-116. | 0.4 | 0 |
| 903 | Three-dimensional cascaded lattice Boltzmann method: Improved implementation and consistent forcing scheme. Physical Review E, 2018, 97, 053309. | 0.8 | 59 |
| 904 | Scalable Parallel Algorithm of Multiple-Relaxation-Time Lattice Boltzmann Method with Large Eddy Simulation on Multi-GPUs. Scientific Programming, 2018, 2018, 1-12. | 0.5 | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 905 | 3D Simulation of Self-Compacting Concrete Flow Based on MRT-LBM. Advances in Materials Science and Engineering, 2018, 2018, 1-8. | 1.0 | 7 |
| 906 | Application of Lattice Boltzmann and Navier-Stokes Methods to NASAâ€™s Wall Mounted Hump. , 2018, , . | | 3 |
| 907 | Permeability from 3D Porous Media Images: a Fast Two-Step Approach. Transport in Porous Media, 2018, 124, 1017-1033. | 1.2 | 9 |
| 908 | Non-uniform grid based LBM for the Saint-Venant equations. Journal of Hydrology, 2018, 563, 435-445. | 2.3 | 8 |
| 909 | Pore-scale simulation and statistical investigation of velocity and drag force distribution of flow through randomly-packed porous media under low and intermediate Reynolds numbers. Computers and Fluids, 2018, 171, 15-28. | 1.3 | 16 |
| 910 | Simulation of Fluid and Structure Interface with Immersed Boundaryâ€“Lattice Boltzmann Method Involving Turbulence Models. Mathematical Problems in Engineering, 2018, 2018, 1-12. | 0.6 | 0 |
| 911 | Color-gradient lattice Boltzmann model with nonorthogonal central moments: Hydrodynamic melt-jet breakup simulations. Physical Review E, 2018, 98, 013305. | 0.8 | 29 |
| 912 | Multiple-Relaxation-Time Lattice Boltzmann Simulation of Flow and Heat Transfer in Porous Volumetric Solar Receivers. Journal of Energy Resources Technology, Transactions of the ASME, 2018, 140, . | 1.4 | 23 |
| 913 | High-order simplified thermal lattice Boltzmann method for incompressible thermal flows. International Journal of Heat and Mass Transfer, 2018, 127, 1-16. | 2.5 | 31 |
| 914 | Fourth-order analysis of force terms in multiphase pseudopotential lattice Boltzmann model. Computers and Mathematics With Applications, 2018, 76, 1699-1712. | 1.4 | 10 |
| 915 | Conservative phase-field lattice-Boltzmann model for ternary fluids. Journal of Computational Physics, 2018, 374, 668-691. | 1.9 | 66 |
| 916 | Application of a Steady Meandering River with Piers Using a Lattice Boltzmann Sub-Grid Model in Curvilinear Coordinate Grid. Water (Switzerland), 2018, 10, 615. | 1.2 | 1 |
| 917 | A single-relaxation-time lattice Boltzmann model for anisotropic advection-diffusion equation based on the diffusion velocity flux formulation. Computational Geosciences, 2018, 22, 1423-1432. | 1.2 | 4 |
| 918 | Boiling heat transfer on hydrophilic-hydrophobic mixed surfaces: A 3D lattice Boltzmann study. Applied Thermal Engineering, 2018, 142, 846-854. | 3.0 | 51 |
| 919 | Two-dimensional numerical simulation of chimney fluidization in a granular medium using a combination of discrete element and lattice Boltzmann methods. Physical Review E, 2018, 97, 052902. | 0.8 | 18 |
| 920 | Multiple-relaxation-time lattice Boltzmann model for simulating double-diffusive convection in fluid-saturated porous media. International Journal of Heat and Mass Transfer, 2018, 127, 497-502. | 2.5 | 24 |
| 921 | Rarefaction throttling effect: Influence of the bend in micro-channel gaseous flow. Physics of Fluids, 2018, 30, . | 1.6 | 28 |
| 922 | Thermal lattice Boltzmann method for multiphase flows. Physical Review E, 2018, 98, 023308. | 0.8 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 923 | Fluidic gates simulated with lattice Boltzmann method under different Reynolds numbers. Journal of Computational Science, 2018, 28, 51-58. | 1.5 | 3 |
| 924 | Consistent lattice Boltzmann modeling of low-speed isothermal flows at finite Knudsen numbers in slip-flow regime. II. Application to curved boundaries. Physical Review E, 2018, 98, 023302. | 0.8 | 24 |
| 925 | A novel geometry-adaptive Cartesian grid based immersed boundaryâ€“lattice Boltzmann method for fluidâ€“structure interactions at moderate and high Reynolds numbers. Journal of Computational Physics, 2018, 375, 22-56. | 1.9 | 69 |
| 926 | Pore-scale study of heterogeneous chemical reaction for ablation of carbon fibers using the lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2018, 126, 1222-1239. | 2.5 | 27 |
| 927 | Double-MRT lattice Boltzmann simulation of natural convection in a C-shaped heat exchanger. Powder Technology, 2018, 336, 465-480. | 2.1 | 32 |
| 928 | Simulation of droplet impacting a square solid obstacle in microchannel with different wettability by using high density ratio pseudopotential multiple-relaxation-time (MRT) lattice Boltzmann method (LBM). Canadian Journal of Physics, 2019, 97, 93-113. | 0.4 | 17 |
| 929 | Real-time smoke simulation based on vorticity preserving lattice Boltzmann method. Visual Computer, 2019, 35, 1279-1292. | 2.5 | 4 |
| 930 | A new GPU implementation for lattice-Boltzmann simulations on sparse geometries. Computer Physics Communications, 2019, 235, 258-278. | 3.0 | 18 |
| 931 | Multiple-Relaxation-Time Lattice Boltzmann scheme for fractional advectionâ€“diffusion equation. Computer Physics Communications, 2019, 234, 40-54. | 3.0 | 11 |
| 932 | Comparative study of the lattice Boltzmann collision models for simulation of incompressible fluid flows. Mathematics and Computers in Simulation, 2019, 156, 158-177. | 2.4 | 14 |
| 933 | Numerical investigation of vibration-induced droplet shedding on smooth surfaces with large contact angles. Physical Review E, 2019, 100, 023105. | 0.8 | 14 |
| 934 | Single-shot velocity mapping by rewinding of velocity encoding with Echo-Planar Imaging. Journal of Magnetic Resonance, 2019, 307, 106570. | 1.2 | 3 |
| 935 | Pore-scale study of counter-current imbibition in strongly water-wet fractured porous media using lattice Boltzmann method. Physics of Fluids, 2019, 31, . | 1.6 | 58 |
| 936 | Hydro-mechanical modeling of sinkhole occurrence processes in covered karst terrains during a flood. Engineering Geology, 2019, 260, 105249. | 2.9 | 18 |
| 937 | Pseudoentropic derivation of the regularized lattice Boltzmann method. Physical Review E, 2019, 100, 023302. | 0.8 | 22 |
| 938 | Improved three-dimensional color-gradient lattice Boltzmann model for immiscible two-phase flows. Physical Review E, 2019, 100, 023301. | 0.8 | 29 |
| 939 | Multiple Relaxation Time Lattice Boltzmann Models for Multigrid Phase-Field Segmentation of Tumors in 3D Ultrasound Images. SIAM Journal on Imaging Sciences, 2019, 12, 1324-1346. | 1.3 | 6 |
| 940 | Lattice Boltzmann Methods for Industrial Applications. Industrial & Engineering Chemistry Research, 2019, 58, 16205-16234. | 1.8 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 941 | MRT-Lattice Boltzmann Model for Multilayer Shallow Water Flow. Water (Switzerland), 2019, 11, 1623. | 1.2 | 7 |
| 943 | Direct numerical simulation of decaying homogeneous isotropic turbulence â€" numerical experiments on stability, consistency and accuracy of distinct lattice Boltzmann methods. International Journal of Modern Physics C, 2019, 30, 1950074. | 0.8 | 20 |
| 944 | Heat transfer dynamics inside the Drop-on-Demand inkjet printhead with a hybrid thermal lattice Boltzmann model. Applied Thermal Engineering, 2019, 159, 113789. | 3.0 | 3 |
| 945 | Transitional non-Darcy displacement of immiscible fluids due to inertial effect. Journal of Hydrology, 2019, 577, 123934. | 2.3 | 7 |
| 946 | Sound generation by two dimensional vortex pair motion and the influence of viscosity. Computers and Mathematics With Applications, 2019, 78, 2761-2771. | 1.4 | 4 |
| 947 | On the coupling of a direct-forcing immersed boundary method and the regularized lattice Boltzmann method for fluid-structure interaction. Computers and Fluids, 2019, 190, 470-484. | 1.3 | 17 |
| 948 | Numerical investigation of vibration-induced droplet shedding on microstructured superhydrophobic surfaces. Physical Review E, 2019, 99, 063111. | 0.8 | 6 |
| 949 | The lid-driven right-angled isosceles triangular cavity flow. Journal of Fluid Mechanics, 2019, 875, 476-519. | 1.4 | 17 |
| 950 | Direct simulation of pore-scale two-phase visco-capillary flow on large digital rock images using a phase-field lattice Boltzmann method on general-purpose graphics processing units. Computational Geosciences, 2019, 23, 849-880. | 1.2 | 38 |
| 951 | A Lattice Boltzmann Model for Two-Phase Flow in Porous Media. SIAM Journal of Scientific Computing, 2019, 41, B746-B772. | 1.3 | 42 |
| 952 | Mixed bounce-back boundary scheme of the general propagation lattice Boltzmann method for advection-diffusion equations. Physical Review E, 2019, 99, 063316. | 0.8 | 7 |
| 953 | 2D Simulation of boiling heat transfer on the wall with an improved hybrid lattice Boltzmann model. Applied Thermal Engineering, 2019, 159, 113788. | 3.0 | 35 |
| 954 | Study of mixed convection in closed enclosure with a ceiling fan. EPJ Applied Physics, 2019, 86, 20902. | 0.3 | 8 |
| 955 | Interactions of Oil Drops Induced by the Lateral Capillary Force and Surface Tension Gradients. Langmuir, 2019, 35, 14967-14973. | 1.6 | 3 |
| 956 | Enhancing propulsion performance of a flexible heaving foil through dynamically adjusting its flexibility. Bioinspiration and Biomimetics, 2019, 14, 064002. | 1.5 | 4 |
| 957 | Lattice Boltzmann models for micro-tomographic pore-spaces. Computers and Fluids, 2019, 193, 104294. | 1.3 | 8 |
| 958 | Characteristics of drop-on-demand droplet jetting with effect of altered geometry of printhead nozzle. Sensors and Actuators A: Physical, 2019, 298, 111591. | 2.0 | 7 |
| 959 | Hybrid Lattice Boltzmann-finite difference model for low mach number combustion simulation. Combustion and Flame, 2019, 209, 394-404. | 2.8 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 960 | Thermodynamic-consistent multiple-relaxation-time lattice Boltzmann equation model for two-phase hydrocarbon fluids with Peng-Robinson equation of state. International Journal of Heat and Mass Transfer, 2019, 141, 1216-1226. | 2.5 | 10 |
| 961 | A universal modified MRT LBM for common non-Newtonian fluids and their applications. Mechanics of Materials, 2019, 139, 103187. | 1.7 | 7 |
| 962 | MRT-LBM modelling of the oscillatory gas slide film damping in the transition regime. Journal of Physics: Conference Series, 2019, 1324, 012046. | 0.3 | 0 |
| 963 | Universal formulation of central-moments-based lattice Boltzmann method with external forcing for the simulation of multiphysics phenomena. Physics of Fluids, 2019, 31, 117102. | 1.6 | 32 |
| 964 | Energy-based modeling of micro- and nano-droplet jumping upon coalescence on superhydrophobic surfaces. Applied Physics Letters, 2019, 115, . | 1.5 | 11 |
| 965 | Kinematics of chromodynamic multicomponent lattice Boltzmann simulation with a large density contrast. Physical Review E, 2019, 100, 043310. | 0.8 | 6 |
| 966 | Phase-field-based lattice Boltzmann model for liquid-gas-solid flow. Physical Review E, 2019, 100, 033314. | 0.8 | 13 |
| 967 | Density gradient calculation in a class of multiphase lattice Boltzmann models. Physical Review E, 2019, 100, 043306. | 0.8 | 8 |
| 968 | The Actuator Line Model in Lattice Boltzmann Frameworks: Numerical Sensitivity and Computational Performance. Journal of Physics: Conference Series, 2019, 1256, 012022. | 0.3 | 9 |
| 969 | Comprehensive comparison of collision models in the lattice Boltzmann framework: Theoretical investigations. Physical Review E, 2019, 100, 033305. | 0.8 | 77 |
| 970 | Explicit and viscosity-independent immersed-boundary scheme for the lattice Boltzmann method. Physical Review E, 2019, 100, 033306. | 0.8 | 15 |
| 971 | Pore-Scale CO<sub>2</sub> Displacement Simulation Based on the Three Fluid Phase Lattice Boltzmann Method. Energy & Fuels, 2019, 33, 10039-10055. | 2.5 | 19 |
| 972 | Lattice Boltzmann-Discrete Element Modeling Simulation of SCC Flowing Process for Rock-Filled Concrete. Materials, 2019, 12, 3128. | 1.3 | 7 |
| 973 | A conservation-moment-based implicit finite volume lattice Boltzmann method for steady nearly incompressible flows. Journal of Computational Physics, 2019, 398, 108882. | 1.9 | 9 |
| 974 | Heat Transfer Enhancement Technique of PCMs and Its Lattice Boltzmann Modeling. , 0, , . | | 5 |
| 975 | A comparative study of immersed boundary method and interpolated bounce-back scheme for no-slip boundary treatment in the lattice Boltzmann method: Part I, laminar flows. Computers and Fluids, 2019, 192, 104233. | 1.3 | 14 |
| 976 | SunwayLB: Enabling Extreme-Scale Lattice Boltzmann Method Based Computing Fluid Dynamics Simulations on Sunway TaihuLight. , 2019, , . | | 12 |
| 978 | A new curved boundary treatment for LBM modeling of thermal gaseous microflow in the slip regime. Microfluidics and Nanofluidics, 2019, 23, 1. | 1.0 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 979 | Petrophysical characterization of tight oil sandstones by microscale X-ray computed tomography. Marine and Petroleum Geology, 2019, 102, 604-614. | 1.5 | 18 |
| 980 | Oscillatory flows of electro-thermo-convection in eccentric annulus. International Journal of Heat and Mass Transfer, 2019, 134, 920-932. | 2.5 | 12 |
| 981 | Lattice Boltzmann model with self-tuning equation of state for multiphase flows. Physical Review E, 2019, 99, 023303. | 0.8 | 19 |
| 982 | Lattice Boltzmann simulation of immiscible three-phase flows with contact-line dynamics. Physical Review E, 2019, 99, 013308. | 0.8 | 28 |
| 983 | Numerical Study of Droplet Dynamics on a Solid Surface with Insoluble Surfactants. Langmuir, 2019, 35, 7858-7870. | 1.6 | 25 |
| 984 | Image-based simulations of absolute permeability with massively parallel pseudo-compressible stabilised finite element solver. Computational Geosciences, 2019, 23, 881-893. | 1.2 | 12 |
| 985 | A non-iterative immersed boundary-lattice Boltzmann method with boundary condition enforced for fluidâ€“solid flows. Applied Mathematical Modelling, 2019, 76, 362-379. | 2.2 | 27 |
| 986 | Hybrid Wettability-Induced Heat Transfer Enhancement for Condensation with NonCondensable Gas. Langmuir, 2019, 35, 9430-9440. | 1.6 | 29 |
| 987 | Numerical study of mixed convection in a ventilated square enclosure with the lattice Boltzmann method. Numerical Heat Transfer; Part A: Applications, 2019, 75, 674-689. | 1.2 | 12 |
| 988 | Lattice Boltzmann Equations-Based Model of the Convection Melt Flow Driven by the Combined Effects of Buoyancy, Surface Tension and Magnetic Body Forces with Heat Generation. Defect and Diffusion Forum, 0, 390, 133-150. | 0.4 | 0 |
| 989 | Multiple-relaxation-time lattice Boltzmann model for double-diffusive convection with Dufour and Soret effects. International Journal of Heat and Mass Transfer, 2019, 139, 713-719. | 2.5 | 37 |
| 990 | Multiple-relaxation-time lattice Boltzmann model for simulating axisymmetric thermal flows in porous media. International Journal of Heat and Mass Transfer, 2019, 137, 1301-1311. | 2.5 | 9 |
| 991 | Peristaltic transport of thixotropic fluids: A numerical simulation. Korea Australia Rheology Journal, 2019, 31, 71-79. | 0.7 | 4 |
| 992 | Comparison of multiphase SPH and LBM approaches for the simulation of intermittent flows. Computational Particle Mechanics, 2019, 6, 695-720. | 1.5 | 13 |
| 993 | Coalescence-induced droplet detachment on low-adhesion surfaces: A three-phase system study. Physical Review E, 2019, 99, 063102. | 0.8 | 3 |
| 994 | Stability of the lattice kinetic scheme and choice of the free relaxation parameter. Physical Review E, 2019, 99, 063305. | 0.8 | 30 |
| 995 | Separate-phase model and its lattice Boltzmann algorithm for liquid-vapor two-phase flows in porous media. Physical Review E, 2019, 99, 053302. | 0.8 | 3 |
| 996 | Acceleration of phase-field lattice Boltzmann simulation of dendrite growth with thermosolutal convection by the multi-GPUs parallel computation with multiple mesh and time step method. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 054004. | 0.8 | 19 |

| # | Article | IF | Citations |
|---|---|---|---|
| 997 | Single droplet condensation in presence of non-condensable gas by a multi-component multi-phase thermal lattice Boltzmann model. International Journal of Heat and Mass Transfer, 2019, 139, 254-268. | 2.5 | 31 |
| 998 | Modeling realistic multiphase flows using a non-orthogonal multiple-relaxation-time lattice Boltzmann method. Physics of Fluids, 2019, 31, . | 1.6 | 67 |
| 999 | Three-dimensional non-orthogonal MRT pseudopotential lattice Boltzmann model for multiphase flows. Computers and Fluids, 2019, 186, 128-140. | 1.3 | 53 |
| 1000 | Lattice Boltzmann simulation of intraparticle diffusivity in porous pellets with macro-mesopore structure. International Journal of Heat and Mass Transfer, 2019, 138, 1014-1028. | 2.5 | 19 |
| 1001 | Lattice Boltzmann model for time sub-diffusion equation in Caputo sense. Applied Mathematics and Computation, 2019, 358, 80-90. | 1.4 | 11 |
| 1002 | Lattice Boltzmann model with adjustable equation of state for coupled thermo-hydrodynamic flows. Journal of Computational Physics, 2019, 392, 227-247. | 1.9 | 12 |
| 1003 | On the aeroelastic energy transfer from a Lamb dipole to a flexible cantilever. Journal of Fluids and Structures, 2019, 86, 170-184. | 1.5 | 8 |
| 1004 | Velocity and Drag Force Distribution of Fluid Flow in Mono- and Binary-Sized Particulate Porous Media. , 2019, , . | | 0 |
| 1005 | Rayleigh-BÃ©nard type natural convection heat transfer in two-dimensional geometries. Applied Thermal Engineering, 2019, 153, 543-555. | 3.0 | 22 |
| 1006 | The Effect of Surface Wettability and Wall Roughness on the Residual Saturation for the Drainage Process in Sinusoidal Channels. Transport in Porous Media, 2019, 129, 203-229. | 1.2 | 3 |
| 1007 | Lattice Boltzmann method for general convection-diffusion equations: MRT model and boundary schemes. Journal of Computational Physics, 2019, 389, 147-163. | 1.9 | 29 |
| 1008 | Solute transport in shallow water flows using the coupled curvilinear Lattice Boltzmann method. Journal of Hydrology, 2019, 573, 557-567. | 2.3 | 3 |
| 1009 | Numerical study of droplet dynamics in a steady electric field using a hybrid lattice Boltzmann and finite volume method. Physics of Fluids, 2019, 31, . | 1.6 | 44 |
| 1010 | Three-dimensional multiple-relaxation-time lattice Boltzmann models for single-phase and solid-liquid phase-change heat transfer in porous media at the REV scale. Applied Thermal Engineering, 2019, 152, 319-337. | 3.0 | 47 |
| 1011 | Numerical Simulation of Drag Reduction in Microgrooved Substrates Using Lattice-Boltzmann Method. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, . | 0.8 | 18 |
| 1012 | Maxwell-Stefan-theory-based lattice Boltzmann model for diffusion in multicomponent mixtures. Physical Review E, 2019, 99, 023312. | 0.8 | 25 |
| 1013 | Multiple-relaxation-time lattice Boltzmann model for simulation of free convection in axisymmetric nanofluid-filled annulus-experimental and numerical observations. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 934-955. | 1.6 | 1 |
| 1014 | Lattice Boltzmann simulation of convective flow and heat transfer in a nanofluid-filled hollow cavity. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 3075-3094. | 1.6 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1015 | Three-Dimensional Numerical Method for Simulating Large-Scale Free Water Surface by Massive Parallel Computing on a GPU. Water (Switzerland), 2019, 11, 2121. | 1.2 | 2 |
| 1016 | A numerical model coupling bubble flow, light transfer, cell motion and growth kinetics for real timescale microalgae cultivation and its applications in flat plate photobioreactors. Algal Research, 2019, 44, 101727. | 2.4 | 13 |
| 1017 | Inertial Effects During the Process of Supercritical CO<sub>2</sub> Displacing Brine in a Sandstone: Lattice Boltzmann Simulations Based on the Continuumâ€Surfaceâ€Force and Geometrical Wetting Models. Water Resources Research, 2019, 55, 11144-11165. | 1.7 | 36 |
| 1018 | Hydrodynamic Characteristics of Square Heaving Plates with Opening Under Forced Oscillation. China Ocean Engineering, 2019, 33, 637-648. | 0.6 | 2 |
| 1019 | Origin of spurious oscillations in lattice Boltzmann simulations of oscillatory noncontinuum gas flows. Physical Review E, 2019, 100, 053317. | 0.8 | 6 |
| 1020 | Phase-field lattice Boltzmann model for dendrites growing and moving in melt flow. Npj Computational Materials, 2019, 5, . | 3.5 | 26 |
| 1021 | A Low-Rank Algorithm for Weakly Compressible Flow. SIAM Journal of Scientific Computing, 2019, 41, A2795-A2814. | 1.3 | 22 |
| 1022 | Extensive analysis of the lattice Boltzmann method on shifted stencils. Physical Review E, 2019, 100, 063301. | 0.8 | 24 |
| 1023 | Implementation of contact angles in pseudopotential lattice Boltzmann simulations with curved boundaries. Physical Review E, 2019, 100, 053313. | 0.8 | 53 |
| 1024 | Effects of temperature-dependent properties on natural convection of power-law nanofluids in rectangular cavities with sinusoidal temperature distribution. International Journal of Heat and Mass Transfer, 2019, 128, 688-699. | 2.5 | 62 |
| 1025 | A mass-conserving lattice Boltzmann method for bubble behavior estimation. Chemical Engineering Science, 2019, 193, 76-88. | 1.9 | 11 |
| 1026 | On the dissipation mechanism of lattice Boltzmann method when modeling 1-d and 2-d water hammer flows. Computers and Fluids, 2019, 193, 103996. | 1.3 | 3 |
| 1027 | Role of higher-order Hermite polynomials in the central-moments-based lattice Boltzmann framework. Physical Review E, 2019, 99, 013301. | 0.8 | 27 |
| 1028 | An extended spectral analysis of the lattice Boltzmann method: modal interactions and stability issues. Journal of Computational Physics, 2019, 380, 311-333. | 1.9 | 45 |
| 1029 | Investigation of MHD natural convection in a porous media by double MRT lattice Boltzmann method utilizing MWCNTâ€“Fe3O4/water hybrid nanofluid. International Journal of Heat and Mass Transfer, 2019, 132, 1087-1104. | 2.5 | 125 |
| 1030 | Axisymmetric lattice Boltzmann model for multiphase flows with large density ratio. International Journal of Heat and Mass Transfer, 2019, 130, 1189-1205. | 2.5 | 74 |
| 1031 | Influence of complex driving motion on propulsion performance of a heaving flexible foil. Bioinspiration and Biomimetics, 2019, 14, 016011. | 1.5 | 11 |
| 1032 | Pore-scale lattice Boltzmann simulation of two-component shale gas flow. Journal of Natural Gas Science and Engineering, 2019, 61, 46-70. | 2.1 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1033 | Discrete methods of the energy equations in the pseudo-potential lattice Boltzmann model based simulations. Computers and Fluids, 2019, 179, 645-654. | 1.3 | 15 |
| 1034 | Multiple-Relaxation-Time Lattice Boltzmann Model for Flow and Convective Heat Transfer in Channel with Porous Media. Journal of Statistical Physics, 2019, 174, 972-991. | 0.5 | 7 |
| 1035 | DEM investigations of internal erosion: Grain transport in the light of micromechanics. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 339-352. | 1.7 | 42 |
| 1036 | Lattice Boltzmann equation for mass transfer in multi solvent systems. International Journal of Heat and Mass Transfer, 2019, 132, 519-528. | 2.5 | 9 |
| 1037 | Flow-dynamics induced thermal management of crude oil wax melting: Lattice Boltzmann modeling. International Journal of Thermal Sciences, 2019, 137, 675-691. | 2.6 | 12 |
| 1038 | Absolute permeability calculations in micro-computed tomography models of sandstones by Navier-Stokes and lattice Boltzmann equations. International Journal of Heat and Mass Transfer, 2019, 129, 415-426. | 2.5 | 41 |
| 1039 | Simulation of three dimensional MHD natural convection using double MRT Lattice Boltzmann method. Physica A: Statistical Mechanics and Its Applications, 2019, 515, 474-496. | 1.2 | 55 |
| 1040 | Lattice Boltzmann methods for single-phase and solid-liquid phase-change heat transfer in porous media: A review. International Journal of Heat and Mass Transfer, 2019, 129, 160-197. | 2.5 | 165 |
| 1041 | An Overview of Numerical Methods for Incompressible Viscous Flow with Moving Particles. Archives of Computational Methods in Engineering, 2019, 26, 1255-1282. | 6.0 | 13 |
| 1042 | Hybrid lattice Boltzmann-TVD simulation of natural convection of nanofluids in a partially heated square cavity using Buongiornoâ€™s model. Applied Thermal Engineering, 2019, 146, 318-327. | 3.0 | 43 |
| 1043 | Determining permeability tensors of porous media: A novel â€˜vector kineticâ€™ numerical approach. International Journal of Multiphase Flow, 2019, 110, 198-217. | 1.6 | 16 |
| 1044 | Generalized bounce back boundary condition for the nine velocities two-dimensional lattice Boltzmann scheme. Computers and Fluids, 2019, 193, 103534. | 1.3 | 3 |
| 1045 | A lattice-BGK model for the Navierâ€“Stokes equations based on a rectangular grid. Computers and Mathematics With Applications, 2019, 78, 1076-1094. | 1.4 | 6 |
| 1046 | Particle based method and X-ray computed tomography for pore-scale flow characterization in VRFB electrodes. Energy Storage Materials, 2019, 16, 91-96. | 9.5 | 39 |
| 1047 | A lattice-Boltzmann scheme of the Navierâ€“Stokes equation on a three-dimensional cuboid lattice. Computers and Mathematics With Applications, 2019, 78, 1053-1075. | 1.4 | 9 |
| 1048 | An inverse design analysis of mesoscopic implementation of non-uniform forcing in MRT lattice Boltzmann models. Computers and Mathematics With Applications, 2019, 78, 1095-1114. | 1.4 | 4 |
| 1049 | Lateral migration and nonuniform rotation of suspended ellipse in Poiseuille flow. Computers and Mathematics With Applications, 2019, 78, 1142-1153. | 1.4 | 22 |
| 1050 | Spurious velocity from the cutoff and magnification equation in free energy-based LBM for two-phase flow with a large density ratio. Computers and Mathematics With Applications, 2019, 78, 1166-1181. | 1.4 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1051 | Investigation of local and non-local lattice Boltzmann models for transient heat transfer between non-stationary, disparate media. Computers and Mathematics With Applications, 2020, 79, 174-194. | 1.4 | 4 |
| 1052 | Comparison of passive scalar transport models coupled with the Lattice Boltzmann method. Computers and Mathematics With Applications, 2020, 79, 55-65. | 1.4 | 13 |
| 1053 | Power-law fluid flow in driven enclosures with undulation using MRT-lattice Boltzmann method. Computers and Mathematics With Applications, 2020, 79, 100-110. | 1.4 | 11 |
| 1054 | Simulating vortex induced vibration of an impulsively started flexible filament by an implicit IBâ€“LB coupling scheme. Computers and Mathematics With Applications, 2020, 79, 159-173. | 1.4 | 6 |
| 1055 | Lattice Boltzmann simulations on irregular grids: Introduction of the NATriuM library. Computers and Mathematics With Applications, 2020, 79, 34-54. | 1.4 | 11 |
| 1056 | Effects of Magnetic Field and Inclination on Natural Convection in a Cavity Filled with Nanofluids by a Double Multiple-Relaxation-Time Thermal Lattice Boltzmann Method. Heat Transfer Engineering, 2020, 41, 252-270. | 1.2 | 8 |
| 1057 | Two-dimensional off-lattice Boltzmann model for van der Waals fluids with variable temperature. Computers and Mathematics With Applications, 2020, 79, 111-140. | 1.4 | 8 |
| 1058 | Unsteady flow simulation using the curvilinear multiple-relaxation-time lattice Boltzmann method: Danube River case study. Journal of Hydraulic Research/De Recherches Hydrauliques, 2020, 58, 204-217. | 0.7 | 1 |
| 1059 | Development of two-dimensional numerical wave tank based on lattice Boltzmann method. Journal of Hydrodynamics, 2020, 32, 116-125. | 1.3 | 5 |
| 1060 | On anti bounce back boundary condition for lattice Boltzmann schemes. Computers and Mathematics With Applications, 2020, 79, 555-575. | 1.4 | 7 |
| 1061 | Simulation of stratified flows over a ridge using a lattice Boltzmann model. Environmental Fluid Mechanics, 2020, 20, 1333-1355. | 0.7 | 9 |
| 1062 | Fluidâ€“Structure Interactions and Unsteady Kinematics of a Low-Reynolds-Number Rotor. AIAA Journal, 2020, 58, 955-967. | 1.5 | 6 |
| 1063 | A concise python implementation of the lattice Boltzmann method on HPC for geo-fluid flow. Geophysical Journal International, 2020, 220, 682-702. | 1.0 | 9 |
| 1064 | Modeling the propane combustion process within a micro-catalytic porous combustor by using the lattice Boltzmann method. Journal of Thermal Analysis and Calorimetry, 2020, 139, 2659-2677. | 2.0 | 8 |
| 1065 | The effects of wall superheat and surface wettability on nucleation site interactions during boiling. International Journal of Heat and Mass Transfer, 2020, 146, 118820. | 2.5 | 25 |
| 1066 | New applications of numerical simulation based on lattice Boltzmann method at high Reynolds numbers. Computers and Mathematics With Applications, 2020, 79, 1718-1741. | 1.4 | 14 |
| 1067 | A cascaded phase-field lattice Boltzmann model for the simulation of incompressible, immiscible fluids with high density contrast. Computers and Mathematics With Applications, 2020, 79, 1049-1071. | 1.4 | 24 |
| 1068 | Thermodynamic of collapsing cavitation bubble investigated by pseudopotential and thermal MRT-LBM. Ultrasonics Sonochemistry, 2020, 62, 104873. | 3.8 | 44 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1069 | Multiple-relaxation-time lattice Boltzmann simulation of natural convection with multiple heat sources in a rectangular cavity. Canadian Journal of Physics, 2020, 98, 332-343. | 0.4 | 5 |
| 1070 | A simplified finite volume lattice Boltzmann method for simulations of fluid flows from laminar to turbulent regime, Part I: Numerical framework and its application to laminar flow simulation. Computers and Mathematics With Applications, 2020, 79, 1590-1618. | 1.4 | 14 |
| 1071 | Simplified lattice Boltzmann method for nonâ€Newtonian powerâ€law fluid flows. International Journal for Numerical Methods in Fluids, 2020, 92, 38-54. | 0.9 | 31 |
| 1072 | Relevance of Free Jet Model for Soil Erosion by Impinging Jets. Journal of Hydraulic Engineering, 2020, 146, . | 0.7 | 13 |
| 1073 | A parallel GPU-based computational framework for the micromechanical analysis of geotechnical and erosion problems. Computers and Geotechnics, 2020, 120, 103404. | 2.3 | 15 |
| 1074 | A block triple-relaxation-time lattice Boltzmann model for nonlinear anisotropic convectionâ€“diffusion equations. Computers and Mathematics With Applications, 2020, 79, 2550-2573. | 1.4 | 13 |
| 1076 | Modeling of indoor airflow around thermal manikins by multiple-relaxation-time lattice Boltzmann method with LES approaches. Numerical Heat Transfer; Part A: Applications, 2020, 77, 215-231. | 1.2 | 12 |
| 1077 | Validation of the MRT-LBM for three-dimensional free-surface flows: an investigation of the weak compressibility in dam-break benchmarks. Coastal Engineering Journal, 2020, 62, 53-68. | 0.7 | 16 |
| 1078 | Two-phase flow of CO2-brine in a heterogeneous sandstone: Characterization of the rock and comparison of the lattice-Boltzmann, pore-network, and direct numerical simulation methods. Advances in Water Resources, 2020, 135, 103469. | 1.7 | 30 |
| 1079 | Multiple-relaxation-time lattice Boltzmann model for convection heat transfer in porous media under local thermal non-equilibrium condition. Physica A: Statistical Mechanics and Its Applications, 2020, 545, 123794. | 1.2 | 8 |
| 1080 | Efficient coupling of direct forcing immersed boundaryâ€lattice Boltzmann method and finite element method to simulate fluidâ€structure interactions. International Journal for Numerical Methods in Fluids, 2020, 92, 545-572. | 0.9 | 7 |
| 1081 | A novel median dual finite volume lattice Boltzmann method for incompressible flows on unstructured grids. International Journal of Modern Physics C, 2020, 31, 2050173. | 0.8 | 1 |
| 1082 | Transport phenomena in a differentially heated lid-driven cavity: A study using multi-relaxation-time thermal lattice Boltzmann modeling. Physics of Fluids, 2020, 32, . | 1.6 | 20 |
| 1083 | A regularized single-phase lattice Boltzmann method for free-surface flows. Computers and Mathematics With Applications, 2020, 80, 2194-2211. | 1.4 | 10 |
| 1084 | Modeling cross model non-Newtonian fluid flow in porous media. Journal of Contaminant Hydrology, 2020, 235, 103708. | 1.6 | 34 |
| 1085 | Lattice Boltzmann simulations of thermal flows beyond the Boussinesq and ideal-gas approximations. Physical Review E, 2020, 102, 043304. | 0.8 | 9 |
| 1086 | Wettability alteration implications on pore-scale multiphase flow in porous media using the lattice Boltzmann method. Advances in Water Resources, 2020, 146, 103790. | 1.7 | 10 |
| 1087 | Modelling Complex Particleâ€“Fluid Flow with a Discrete Element Method Coupled with Lattice Boltzmann Methods (DEM-LBM). ChemEngineering, 2020, 4, 55. | 1.0 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1088 | Enhancement of nucleate boiling by combining the effects of surface structure and mixed wettability: A lattice Boltzmann study. Applied Thermal Engineering, 2020, 180, 115849. | 3.0 | 21 |
| 1089 | Cavitation bubble collapse between parallel rigid walls with the three-dimensional multi-relaxation time pseudopotential lattice Boltzmann method. AIP Advances, 2020, 10, . | 0.6 | 16 |
| 1090 | Lattice Boltzmann Modeling of Condensation Heat Transfer on Downward-Facing Surfaces with Different Wettabilities. Langmuir, 2020, 36, 9204-9214. | 1.6 | 21 |
| 1091 | Axisymmetric thermal-lattice Boltzmann method for Rayleigh-BÃ©nard convection with anisotropic thermal diffusion. Journal of Computational Science, 2020, 45, 101185. | 1.5 | 5 |
| 1092 | Chromodynamic multirelaxation-time lattice Boltzmann scheme for fluids with density difference. Physical Review E, 2020, 102, 013309. | 0.8 | 2 |
| 1093 | Direct numerical simulations of turbulent periodic-hill flows with mass-conserving lattice Boltzmann method. Physics of Fluids, 2020, 32, 115122. | 1.6 | 5 |
| 1094 | Lattice Boltzmann study of bubble dynamics and heat transfer on a hybrid rough surface with a cavity-pillar structure. International Communications in Heat and Mass Transfer, 2020, 119, 104896. | 2.9 | 17 |
| 1095 | Numerical Analysis of the Lattice Boltzmann Method for the Boussinesq Equations. Journal of Scientific Computing, 2020, 84, 1. | 1.1 | 1 |
| 1096 | Poreâ€Scale Modeling of Drainage Displacement Patterns in Association With Geological Sequestration of CO<sub>2</sub>. Water Resources Research, 2020, 56, e2019WR026332. | 1.7 | 10 |
| 1097 | Scalable parallel finite volume lattice Boltzmann method for thermal incompressible flows on unstructured grids. International Journal of Heat and Mass Transfer, 2020, 160, 120156. | 2.5 | 10 |
| 1098 | Dual-MRT lattice Boltzmann method combined with experimental measurements of nanofluidâ€™s properties for analysis of fin-orientation effect on natural convection heat transfer. International Journal of Numerical Methods for Heat and Fluid Flow, 2020, 30, 5017-5035. | 1.6 | 4 |
| 1099 | Two-dimensional numerical model for predicting fouling shape growth based on immersed boundary method and lattice Boltzmann method. Applied Thermal Engineering, 2020, 179, 115755. | 3.0 | 9 |
| 1100 | Mesoscopic simulation of three-dimensional pool boiling based on a phase-change cascaded lattice Boltzmann method. Physics of Fluids, 2020, 32, . | 1.6 | 63 |
| 1101 | Methods for Studying Two-Phase Flows in Porous Media: Numerical Simulation and Experiments on Microfluidics Chips. , 2020, , . | | 1 |
| 1102 | Simulations for the flow of viscoplastic fluids in a cavity driven by the movement of walls by Lattice Boltzmann Method. Korea Australia Rheology Journal, 2020, 32, 213-231. | 0.7 | 3 |
| 1103 | A Graphics Process Unit-Based Multiple-Relaxation-Time Lattice Boltzmann Simulation of Non-Newtonian Fluid Flows in a Backward Facing Step. Computation, 2020, 8, 83. | 1.0 | 17 |
| 1104 | Enhanced multi-relaxation-time lattice Boltzmann model by entropic stabilizers. Physical Review E, 2020, 102, 023307. | 0.8 | 7 |
| 1105 | Simulation of Dendritic Painting. Computer Graphics Forum, 2020, 39, 597-606. | 1.8 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1106 | Study on the Collapse Process of Cavitation Bubbles Near the Concave Wall by Lattice Boltzmann Method Pseudo-Potential Model. Energies, 2020, 13, 4398. | 1.6 | 8 |
| 1107 | Simulation of Boiling Heat Transfer at Different Reduced Temperatures with an Improved Pseudopotential Lattice Boltzmann Method. Symmetry, 2020, 12, 1358. | 1.1 | 6 |
| 1108 | Multiple-relaxation-time lattice Boltzmann method for the Navier-Stokes and nonlinear convection-diffusion equations: Modeling, analysis, and elements. Physical Review E, 2020, 102, 023306. | 0.8 | 77 |
| 1109 | Numerical Study on Bubble Rising in Complex Channels Saturated with Liquid Using a Phase-Field Lattice-Boltzmann Method. Processes, 2020, 8, 1608. | 1.3 | 7 |
| 1110 | Numerical analysis of two-phase electrohydrodynamic flows in the presence of surface charge convection. Physics of Fluids, 2020, 32, . | 1.6 | 25 |
| 1111 | Assessment of weak compressibility in actuator line simulations of wind turbine wakes. Journal of Physics: Conference Series, 2020, 1618, 062057. | 0.3 | 2 |
| 1112 | Linear stability and isotropy properties of athermal regularized lattice Boltzmann methods. Physical Review E, 2020, 102, 053305. | 0.8 | 23 |
| 1113 | Simulations of Aerodynamic Separated Flows Using the Lattice Boltzmann Solver XFlow. Energies, 2020, 13, 5146. | 1.6 | 25 |
| 1114 | Multiphysics flow simulations using D3Q19 lattice Boltzmann methods based on central moments. Physics of Fluids, 2020, 32, . | 1.6 | 39 |
| 1115 | Compressible lattice Boltzmann methods with adaptive velocity stencils: An interpolation-free formulation. Physics of Fluids, 2020, 32, 116102. | 1.6 | 18 |
| 1116 | Study of Periodic Thermal Exchange in a Cavity Ventilated by Displacement. Arabian Journal for Science and Engineering, 2020, 45, 5751-5768. | 1.7 | 3 |
| 1117 | A highly accurate GPU Lattice Boltzmann method with directional interpolation for the probability distribution functions. International Journal for Numerical Methods in Fluids, 2020, 92, 1778-1797. | 0.9 | 4 |
| 1118 | Impact and penetration dynamics of inkjet droplet within paper-like fibrous substrate by mesoscopic modeling. Computational Mechanics, 2020, 66, 391-404. | 2.2 | 8 |
| 1119 | The impact of heterogeneous pin based micro-structures on flow dynamics and heat transfer in micro-scale heat exchangers. Physics of Fluids, 2020, 32, . | 1.6 | 16 |
| 1120 | Numerical simulation of the downwash flow field and droplet movement from an unmanned helicopter for crop spraying. Computers and Electronics in Agriculture, 2020, 174, 105468. | 3.7 | 22 |
| 1121 | Latticeâ€“Boltzmann simulations for complex geometries on high-performance computers. CEAS Aeronautical Journal, 2020, 11, 745-766. | 0.9 | 9 |
| 1122 | A mesoscopic coupling scheme for solute transport in surface water using the lattice boltzmann method. Journal of Hydrology, 2020, 588, 125062. | 2.3 | 4 |
| 1123 | Lattice Boltzmann simulation and fractal analysis of effective thermal conductivity in porous media. Applied Thermal Engineering, 2020, 180, 115562. | 3.0 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1124 | An efficient framework for particle-fluid interaction using Discrete Element Lattice Boltzmann Method: Coupling scheme and periodic boundary condition. Computers and Fluids, 2020, 208, 104613. | 1.3 | 12 |
| 1125 | Optimizing free parameters in the D3Q19 Multiple-Relaxation lattice Boltzmann methods to simulate under-resolved turbulent flows. Journal of Computational Science, 2020, 45, 101170. | 1.5 | 8 |
| 1126 | Hybrid datasets: Incorporating experimental data into Latticeâ€Boltzmann simulations. Engineering Reports, 2020, 2, e12177. | 0.9 | 0 |
| 1127 | The hydrodynamic FORCE of fluidâ€“structure interaction interface in lattice Boltzmann simulations. International Journal of Modern Physics B, 2020, 34, 2040085. | 1.0 | 2 |
| 1128 | Analysis and reduction of spurious noise generated at grid refinement interfaces with the lattice Boltzmann method. Journal of Computational Physics, 2020, 418, 109645. | 1.9 | 29 |
| 1129 | Predicting the Propagation of Acoustic Waves using Deep Convolutional Neural Networks. , 2020, , . | | 7 |
| 1130 | Boundary Scheme for a Discrete Kinetic Approximation of the Navierâ€“Stokes Equations. Journal of Scientific Computing, 2020, 82, 1. | 1.1 | 5 |
| 1131 | Homogenization of Dissolution and Enhanced Precipitation Induced by Bubbles in Multiphase Flow Systems. Geophysical Research Letters, 2020, 47, e2020GL087163. | 1.5 | 21 |
| 1132 | Study of thermal comfort: numerical simulation in a closed cavity using the lattice Boltzmann method. SN Applied Sciences, 2020, 2, 1. | 1.5 | 3 |
| 1133 | Phase-field-based lattice Boltzmann model for immiscible incompressible N -phase flows. Physical Review E, 2020, 101, 063310. | 0.8 | 11 |
| 1134 | Lattice Boltzmann simulations of magnetic particles in a three-dimensional microchannel. Powder Technology, 2020, 373, 555-568. | 2.1 | 5 |
| 1135 | Discrete effects on boundary conditions of the lattice Boltzmann method for fluid flows with curved no-slip walls. Physical Review E, 2020, 101, 063307. | 0.8 | 7 |
| 1136 | Impact of collision models on the physical properties and the stability of lattice Boltzmann methods. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190397. | 1.6 | 38 |
| 1137 | Chemical-potential multiphase lattice Boltzmann method with superlarge density ratios. Physical Review E, 2020, 102, 013303. | 0.8 | 30 |
| 1138 | Lattice Boltzmann model for dense suspended particles based on improved bounce-back method. Computers and Mathematics With Applications, 2020, 80, 552-567. | 1.4 | 7 |
| 1139 | A notion of non-negativity preserving relaxation for a mono-dimensional three velocities scheme with relative velocity. Journal of Computational Science, 2020, 47, 101181. | 1.5 | 4 |
| 1140 | Lattice-Boltzmann hydrodynamics of single-square-grid generated turbulence - a partial entropic stabilisation approach. Computers and Mathematics With Applications, 2020, 80, 1301-1326. | 1.4 | 2 |
| 1141 | Central-Moments-Based Lattice Boltzmann for Associating Fluids: A New Integrated Approach. Journal of Physical Chemistry B, 2020, 124, 2900-2913. | 1.2 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1142 | Hydrodynamic behavior of two-dimensional tandem-arranged flapping flexible foils in uniform flow. Physics of Fluids, 2020, 32, 021903. | 1.6 | 19 |
| 1143 | Effects of contact angle hysteresis on drop manipulation using surface acoustic waves. Theoretical and Computational Fluid Dynamics, 2020, 34, 145-162. | 0.9 | 13 |
| 1144 | Numerical Analysis of Droplet Motion over a Flat Plate Due to Surface Acoustic Waves. Microgravity Science and Technology, 2020, 32, 647-660. | 0.7 | 17 |
| 1145 | Rectangular lattice Boltzmann method using multiple relaxation time collision operator in two and three dimensions. Computers and Fluids, 2020, 202, 104492. | 1.3 | 6 |
| 1146 | Comparison of existing and extended boundary conditions for the simulation of rarefied gas flows using the Lattice Boltzmann method. International Journal of Modern Physics C, 2020, 31, 2050070. | 0.8 | 7 |
| 1147 | Discretization limits of latticeâ€Boltzmann methods for studying immiscible twoâ€phase flow in porous media. International Journal for Numerical Methods in Fluids, 2020, 92, 1162-1197. | 0.9 | 4 |
| 1148 | Lattice Boltzmann equation with Overset method for moving objects in two-dimensional flows. Journal of Computational Physics, 2020, 407, 109223. | 1.9 | 10 |
| 1149 | Numerical Modelling of Microchannel Gas Flows in the Transition Flow Regime Using the Cascaded Lattice Boltzmann Method. Entropy, 2020, 22, 41. | 1.1 | 7 |
| 1150 | A curved lattice Boltzmann boundary scheme for thermal convective flows with Neumann boundary condition. International Journal of Heat and Mass Transfer, 2020, 150, 119345. | 2.5 | 21 |
| 1151 | Effects of hysteresis window on contact angle hysteresis behaviour at large Bond number. Journal of Colloid and Interface Science, 2020, 566, 327-337. | 5.0 | 25 |
| 1152 | Effects of size and elasticity on the relation between flow velocity and wall shear stress in side-wall aneurysms: A lattice Boltzmann-based computer simulation study. PLoS ONE, 2020, 15, e0227770. | 1.1 | 11 |
| 1153 | The effects of surface orientation, heater size, wettability, and subcooling on the critical heat flux enhancement in pool boiling. International Journal of Heat and Mass Transfer, 2020, 149, 119230. | 2.5 | 16 |
| 1154 | A lattice Boltzmann study of 2D steady and unsteady flows around a confined cylinder. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1. | 0.8 | 4 |
| 1155 | Zonal Flow Solver (ZFS): a highly efficient multi-physics simulation framework. International Journal of Computational Fluid Dynamics, 2020, 34, 458-485. | 0.5 | 21 |
| 1156 | Lattice Boltzmann model for ternary fluids with solid particles. Physical Review E, 2020, 101, 033307. | 0.8 | 12 |
| 1157 | Consistent vortex initialization for the athermal lattice Boltzmann method. Physical Review E, 2020, 101, 043306. | 0.8 | 11 |
| 1158 | Magnetic regulating the phase change process of Fe3O4-paraffin wax nanocomposites in a square cavity. Energy Conversion and Management, 2020, 213, 112829. | 4.4 | 32 |
| 1159 | Multi Relaxation Time Lattice Boltzmann Method Simulation of Natural Convection Combined with Surface Radiation in a Square Open Cavity from Three Discrete Heat Sources. Heat Transfer Engineering, 2021, 42, 706-722. | 1.2 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1160 | Assessment of multiple relaxation time-lattice Boltzmann method framework for non-Newtonian fluid flow simulations. European Journal of Mechanics, B/Fluids, 2021, 85, 322-334. | 1.2 | 17 |
| 1161 | A decoupled and stabilized lattice Boltzmann method for multiphase flow with large density ratio at high Reynolds and Weber numbers. Journal of Computational Physics, 2021, 426, 109933. | 1.9 | 12 |
| 1162 | Coupled confined phase behavior and transport of methane in slit nanopores. Chemical Engineering Journal, 2021, 404, 126502. | 6.6 | 29 |
| 1163 | An immersed interface-lattice Boltzmann method for fluid-structure interaction. Journal of Computational Physics, 2021, 428, 109807. | 1.9 | 13 |
| 1164 | Lattice-Boltzmann simulation of creeping generalized Newtonian flows: Theory and guidelines. Journal of Computational Physics, 2021, 429, 109943. | 1.9 | 6 |
| 1165 | Paddling motion of a free-swimming jellyfish and Lagrangian coherent structure analysis. Applied Mathematical Modelling, 2021, 95, 244-278. | 2.2 | 2 |
| 1166 | Under-resolved and large eddy simulations of a decaying Taylorâ€“Green vortex with the cumulant lattice Boltzmann method. Theoretical and Computational Fluid Dynamics, 2021, 35, 169-208. | 0.9 | 18 |
| 1167 | Fluidâ€“fluid interactions in pseudopotential lattice Boltzmann models: Effects of model schemes and fluid properties. International Journal for Numerical Methods in Fluids, 2021, 93, 1578-1605. | 0.9 | 0 |
| 1168 | The lattice Boltzmann method for nearly incompressible flows. Journal of Computational Physics, 2021, 431, 109713. | 1.9 | 52 |
| 1169 | Phase-field lattice Boltzmann method with two-relaxation-time model for dendrite growth of a binary alloy with melt convection. Computational Materials Science, 2021, 186, 110070. | 1.4 | 17 |
| 1170 | Lattice Boltzmann simulation of dropwise condensation on the microstructured surfaces with different wettability and morphologies. International Journal of Thermal Sciences, 2021, 160, 106643. | 2.6 | 18 |
| 1171 | Simulations of Ga melting based on multiple-relaxation time lattice Boltzmann method performed with CUDA in Python. Mathematics and Computers in Simulation, 2021, 181, 170-191. | 2.4 | 3 |
| 1172 | Large-eddy simulation of turbulent flows over an urban building array with the ABLE-LBM and comparison with 3D MRI observed data sets. Environmental Fluid Mechanics, 2021, 21, 287-304. | 0.7 | 9 |
| 1173 | A review of phase change heat transfer in shape-stabilized phase change materials (ss-PCMs) based on porous supports for thermal energy storage. Renewable and Sustainable Energy Reviews, 2021, 135, 110127. | 8.2 | 307 |
| 1174 | Investigation of wake characteristics of the MEXICO wind turbine using lattice Boltzmann method. Wind Energy, 2021, 24, 116-132. | 1.9 | 7 |
| 1175 | The LBPM software package for simulating multiphase flow on digital images of porous rocks. Computational Geosciences, 2021, 25, 871-895. | 1.2 | 36 |
| 1176 | A Direct Effective Viscosity Approach for Modeling and Simulating Bingham Fluids with the Cumulant Lattice Boltzmann Method. Open Journal of Fluid Dynamics, 2021, 11, 34-54. | 0.3 | 1 |
| 1177 | Lattice Boltzmann method code. , 2021, , 463-480. | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1178 | A comparative study of three-dimensional discrete velocity set in LBM for turbulent flow over bluff body. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1. | 0.8 | 4 |
| 1179 | Effect of surface tension on late-time growth of high-Reynolds-number Rayleigh-Taylor instability. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 1-10. | 0.2 | 2 |
| 1180 | Evaporation-driven nanoparticles motion and deposition on a textured surface in the inkjet process. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 644-655. | 1.5 | 1 |
| 1181 | A numerical study of fish adaption behaviors in complex environments with a deep reinforcement learning and immersed boundaryâ€“lattice Boltzmann method. Scientific Reports, 2021, 11, 1691. | 1.6 | 25 |
| 1182 | Achieving thermodynamic consistency in a class of free-energy multiphase lattice Boltzmann models. Physical Review E, 2021, 103, 013304. | 0.8 | 13 |
| 1183 | Aerodynamic and Aero-acoustics Performance of Unsteady Kinematics Applied to a Rotor Operating at Low-Reynolds Number. Lecture Notes in Mechanical Engineering, 2021, , 63-70. | 0.3 | 0 |
| 1184 | Evaluation of the Single-Population Lattice Boltzmann Method for One-Dimensional Compressible Flows. , 2021, , . | | 0 |
| 1185 | Effects of application height and crosswind on the crop spraying performance of unmanned helicopters. Computers and Electronics in Agriculture, 2021, 181, 105961. | 3.7 | 15 |
| 1186 | Effect of non-condensable gas on a collapsing cavitation bubble near solid wall investigated by multicomponent thermal MRT-LBM*. Chinese Physics B, 2021, 30, 024701. | 0.7 | 3 |
| 1187 | Study on the Collapse Process of Cavitation Bubbles Including Heat Transfer by Lattice Boltzmann Method. Journal of Marine Science and Engineering, 2021, 9, 219. | 1.2 | 11 |
| 1188 | Lattice Boltzmann modeling and simulation of forced-convection boiling on a cylinder. Physics of Fluids, 2021, 33, . | 1.6 | 37 |
| 1189 | Effects of Cracks and Geometric Parameters on the Flow in Shale. ACS Omega, 2021, 6, 4619-4629. | 1.6 | 2 |
| 1190 | Two-Dimensional Numerical Analysis of Non-Darcy Flow Using the Lattice Boltzmann Method: Pore-Scale Heterogeneous Effects. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, . | 0.8 | 3 |
| 1191 | Time-Periodic Cooling of Rayleighâ€“BÃ©nard Convection. Fluids, 2021, 6, 87. | 0.8 | 3 |
| 1192 | Nonlinear fourth order Taylor expansion of lattice Boltzmann schemes. Asymptotic Analysis, 2022, 127, 297-337. | 0.2 | 4 |
| 1193 | Simple extended lattice Boltzmann methods for incompressible viscous single-phase and two-phase fluid flows. Physics of Fluids, 2021, 33, . | 1.6 | 12 |
| 1194 | Discrete effects on boundary conditions of the lattice Boltzmann method for convection-diffusion equations with curved geometries. International Communications in Heat and Mass Transfer, 2021, 122, 105130. | 2.9 | 4 |
| 1195 | Axisymmetric lattice Boltzmann formulation for mixed convection with anisotropic thermal diffusion and associated bubble breakdown. Physics of Fluids, 2021, 33, 037126. | 1.6 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1196 | Droplet impact on nano-textured bumps: Topology effects. Computers and Fluids, 2021, 218, 104844. | 1.3 | 2 |
| 1197 | Influence of stagnant zones on solute transport in heterogeneous porous media at the pore scale. Physics of Fluids, 2021, 33, . | 1.6 | 16 |
| 1198 | Control of a sedimenting elliptical particle by electromagnetic forces. Physics of Fluids, 2021, 33, 033305. | 1.6 | 6 |
| 1199 | Preferential imbibition in a dual-permeability pore network. Journal of Fluid Mechanics, 2021, 915, . | 1.4 | 28 |
| 1200 | Pore-scale study of miscible density-driven mixing flow in porous media. Physics of Fluids, 2021, 33, . | 1.6 | 13 |
| 1201 | Improved multiple-relaxation-time lattice Boltzmann model for Allenâ€“Cahn equation. International Journal of Modern Physics C, 2021, 32, 2150086. | 0.8 | 1 |
| 1202 | Optimal surface-tension isotropy in the Rothman-Keller color-gradient lattice Boltzmann method for multiphase flow. Physical Review E, 2021, 103, 033302. | 0.8 | 8 |
| 1203 | An investigation of the characteristics of dam-break flood in a confluence channel based on the lattice Boltzmann method. AIP Advances, 2021, 11, 045320. | 0.6 | 1 |
| 1204 | Non-Newtonian power-law fluid flow over obstacles embedded inside a cavity. Physics of Fluids, 2021, 33, . | 1.6 | 11 |
| 1205 | A dissolution model of alite coupling surface topography and ions transport under different hydrodynamics conditions at microscale. Cement and Concrete Research, 2021, 142, 106377. | 4.6 | 6 |
| 1206 | Spurious interface and boundary behaviour beyond physical solutions in lattice Boltzmann schemes. Journal of Computational Physics, 2021, 431, 109986. | 1.9 | 8 |
| 1207 | Improved thermal multiple-relaxation-time lattice Boltzmann model for liquid-vapor phase change. Physical Review E, 2021, 103, 043308. | 0.8 | 17 |
| 1208 | Lattice Boltzmann analysis for electroâ€“thermo-convection with a melting boundary in horizontal concentric annuli. Physics of Fluids, 2021, 33, . | 1.6 | 16 |
| 1209 | Computational appraisal of fluid flow behavior in two-sided oscillating lid-driven cavities. International Journal of Mechanical Sciences, 2021, 196, 106303. | 3.6 | 24 |
| 1210 | Methods of Colloidal Simulation. , 2021, , 120-154. | | 2 |
| 1211 | Cross-platform programming model for many-core lattice Boltzmann simulations. PLoS ONE, 2021, 16, e0250306. | 1.1 | 23 |
| 1212 | Acoustic wave propagation and its application to fluid structure interaction using the Cumulant Lattice Boltzmann Method. Computers and Mathematics With Applications, 2021, 87, 91-106. | 1.4 | 9 |
| 1213 | Enhanced single-node lattice Boltzmann boundary condition for fluid flows. Physical Review E, 2021, 103, 053308. | 0.8 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1214 | Pore-scale conjugate heat transfer of nanofluids within fibrous medium with a double MRT lattice Boltzmann model. International Journal of Thermal Sciences, 2021, 163, 106804. | 2.6 | 4 |
| 1215 | Simplified method for simulation of incompressible viscous flows inspired by the lattice Boltzmann method. Physical Review E, 2021, 103, 053311. | 0.8 | 1 |
| 1216 | Pore-scale study on heat and mass transfer of electrothermal swing adsorption process into X-ray tomography reconstructed activated carbon fibre felt. Chemical Engineering Science, 2021, 235, 116494. | 1.9 | 3 |
| 1217 | Reduction-consistent multiple-relaxation-time lattice Boltzmann equation method for wall bounded N immiscible incompressible fluids. Computers and Fluids, 2021, 221, 104896. | 1.3 | 1 |
| 1218 | Central moment lattice Boltzmann method on a rectangular lattice. Physics of Fluids, 2021, 33, 057110. | 1.6 | 7 |
| 1219 | Lattice Boltzmann study of nucleation site interaction and nucleate boiling heat transfer on a hybrid surface with multiple cavity-pillar structures. International Journal of Thermal Sciences, 2021, 163, 106860. | 2.6 | 23 |
| 1220 | A simulation method for muscle-driven swimming and its applications. Physics of Fluids, 2021, 33, 061904. | 1.6 | 4 |
| 1221 | Lattice Boltzmann simulation of water flow through rough nanopores. Chemical Engineering Science, 2021, 236, 116329. | 1.9 | 8 |
| 1222 | Mesoscopic Lattice Boltzmann Modeling of the Liquid-Vapor Phase Transition. Physical Review Letters, 2021, 126, 244501. | 2.9 | 29 |
| 1223 | Prediction of three-phase relative permeabilities of Berea sandstone using lattice Boltzmann method. Physics of Fluids, 2021, 33, . | 1.6 | 12 |
| 1224 | Numerical investigation of the effects of proppant embedment on fracture permeability and well production in Queensland coal seam gas reservoirs. International Journal of Coal Geology, 2021, 242, 103689. | 1.9 | 22 |
| 1225 | Lattice Boltzmann Study of the Steady-State Relative Permeabilities in Porous Media. Advances in Applied Mathematics and Mechanics, 2021, 13, 619-644. | 0.7 | 0 |
| 1226 | Kinetic boundary schemes of axisymmetric multi-relaxation-time lattice Boltzmann model for microscale gas flows in microtube. Physica Scripta, 2021, 96, 105207. | 1.2 | 2 |
| 1227 | A comparison of semi-Lagrangian vortex method and lattice Boltzmann method for incompressible flows. Computers and Fluids, 2021, 224, 104946. | 1.3 | 5 |
| 1228 | Study of wall wettability effects on cavitation bubble collapse using lattice Boltzmann method. AIP Advances, 2021, 11, . | 0.6 | 7 |
| 1229 | Direct aeroacoustic simulation with a cumulant Lattice-Boltzmann model. Computers and Fluids, 2021, 224, 104970. | 1.3 | 6 |
| 1230 | A new fractal apparent permeability model for liquid flow in tortuous nanopores from lattice Boltzmann simulations to theoretical model. Fractals, 0, , . | 1.8 | 0 |
| 1231 | Kinetic-Based Multiphase Flow Simulation. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 3318-3334. | 2.9 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1232 | Numerical and experimental prediction of free surface flow of shear-thinning fluids. Computers and Fluids, 2021, 225, 104969. | 1.3 | 7 |
| 1233 | Alternative wetting boundary condition for the chemical-potential-based free-energy lattice Boltzmann model. Physical Review E, 2021, 104, 015303. | 0.8 | 5 |
| 1234 | A lattice Boltzmann model for the viscous shallow water equations with source terms. Journal of Hydrology, 2021, 598, 126428. | 2.3 | 4 |
| 1235 | Multiple-relaxation-time lattice Boltzmann analysis of entropy generation in a hot-block-inserted square cavity for different Prandtl numbers. International Journal of Thermal Sciences, 2021, 165, 106948. | 2.6 | 12 |
| 1236 | Nucleate boiling enhancement by structured surfaces with distributed wettability-modified regions: A lattice Boltzmann study. Applied Thermal Engineering, 2021, 194, 117130. | 3.0 | 22 |
| 1237 | The study of nucleation site interactions on the mixed wettability rough surface. International Communications in Heat and Mass Transfer, 2021, 126, 105372. | 2.9 | 4 |
| 1238 | Onsager-regularized lattice Boltzmann method: A nonequilibrium thermodynamics-based regularized lattice Boltzmann method. Physical Review E, 2021, 104, 015313. | 0.8 | 5 |
| 1239 | Multiple-relaxation-time lattice Boltzmann model-based four-level finite-difference scheme for one-dimensional diffusion equations. Physical Review E, 2021, 104, 015312. | 0.8 | 7 |
| 1240 | Lattice Boltzmann method for adsorption under stationary and transient conditions: Interplay between transport and adsorption kinetics in porous media. Physical Review E, 2021, 104, 015314. | 0.8 | 5 |
| 1241 | Lattice Boltzmann simulation of three-phase flows with moving contact lines on curved surfaces. Physical Review E, 2021, 104, 015310. | 0.8 | 16 |
| 1242 | Hybrid lattice-Boltzmann finite-difference simulation of ternary fluids near immersed solid objects of general shapes. Physics of Fluids, 2021, 33, . | 1.6 | 7 |
| 1243 | Three-dimensional single framework multicomponent lattice Boltzmann equation method for vesicle hydrodynamics. Physics of Fluids, 2021, 33, . | 1.6 | 3 |
| 1244 | Study on Deposition Characteristics of Microparticles in Terminal Pulmonary Acini by IBâ€“LBM. Micromachines, 2021, 12, 957. | 1.4 | 3 |
| 1245 | Enhancing dropwise condensation on downward-facing surfaces through the synergistic effects of surface structure and mixed wettability. Physics of Fluids, 2021, 33, . | 1.6 | 15 |
| 1246 | Linear and brute force stability of orthogonal moment multiple-relaxation-time lattice Boltzmann methods applied to homogeneous isotropic turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200405. | 1.6 | 7 |
| 1247 | Analytic solutions of the variable force effect in lattice Boltzmann methods for Poiseuille flows. Physics of Fluids, 2021, 33, 083610. | 1.6 | 3 |
| 1248 | Lattice Boltzmann Simulation of Multicomponent Porous Media Flows With Chemical Reaction. Frontiers in Physics, 2021, 9, . | 1.0 | 4 |
| 1249 | Recursive finite-difference Lattice Boltzmann schemes. Computers and Mathematics With Applications, 2021, 96, 95-108. | 1.4 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1250 | Late-time description of immiscible Rayleighâ€“Taylor instability: A lattice Boltzmann study. Physics of Fluids, 2021, 33, . | 1.6 | 21 |
| 1251 | Investigation into Yaw Motion Influence of Horizontal-Axis Wind Turbine on Wake Flow Using LBM-LES. Energies, 2021, 14, 5248. | 1.6 | 6 |
| 1252 | A Pseudopotential Lattice Boltzmann Method for Simulation of Two-Phase Flow Transport in Porous Medium at High-Density and Highâ€“Viscosity Ratios. Geofluids, 2021, 2021, 1-18. | 0.3 | 10 |
| 1253 | A unified lattice Boltzmann model and application to multiphase flows. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200397. | 1.6 | 23 |
| 1254 | Topology optimization for incompressible viscous fluid flow using the lattice kinetic scheme. Computers and Mathematics With Applications, 2021, 97, 251-266. | 1.4 | 5 |
| 1255 | A numerical investigation of bubble dynamics in a ferrofluid by improved multicomponent multiphase pseudopotential lattice Boltzmann model coupled with magnetic field solver. Physics of Fluids, 2021, 33, 097110. | 1.6 | 4 |
| 1256 | A Strong-Form Off-Lattice Boltzmann Method for Irregular Point Clouds. Symmetry, 2021, 13, 1802. | 1.1 | 2 |
| 1257 | Axisymmetric lattice Boltzmann model with slip boundary conditions for liquid flows in microtube. European Journal of Mechanics, B/Fluids, 2021, 89, 430-444. | 1.2 | 4 |
| 1258 | Three-Dimensional Central Moment Lattice Boltzmann Method on a Cuboid Lattice for Anisotropic and Inhomogeneous Flows. Fluids, 2021, 6, 326. | 0.8 | 8 |
| 1259 | A review of rarefied gas flow in irregular micro/nanochannels. Journal of Micromechanics and Microengineering, 2021, 31, 113002. | 1.5 | 4 |
| 1260 | Multiple-relaxation-time finite-difference lattice Boltzmann model for the nonlinear convection-diffusion equation. Physical Review E, 2021, 104, 035308. | 0.8 | 2 |
| 1261 | Investigation on the effect of convective outflow boundary condition on the bubbles growth, rising and breakup dynamics of nucleate boiling. International Journal of Thermal Sciences, 2021, 167, 106877. | 2.6 | 19 |
| 1262 | Fluid-wall interactions in pseudopotential lattice Boltzmann models. Physical Review E, 2021, 104, 035301. | 0.8 | 3 |
| 1263 | Pool boiling enhancement through induced vibrations in the liquid pool due to moving solid bodiesâ€”A numerical study using lattice Boltzmann method (LBM). Physics of Fluids, 2021, 33, . | 1.6 | 8 |
| 1264 | Transition to chaos in a two-sided collapsible channel flow. Journal of Fluid Mechanics, 2021, 926, . | 1.4 | 21 |
| 1265 | Simulations of surface acoustic wave interactions on a sessile droplet using a three-dimensional multiphase lattice Boltzmann model. Physical Review E, 2021, 104, 045301. | 0.8 | 8 |
| 1266 | Flow structure and heat transfer of transpiration cooling by using a LBM: The effects of wall blowing and spatially nonuniform injection. International Communications in Heat and Mass Transfer, 2021, 127, 105491. | 2.9 | 7 |
| 1267 | Development of a coupled simplified lattice Boltzmann method for thermal flows. Computers and Fluids, 2021, 229, 105042. | 1.3 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1268 | Enhancement of vapor condensation heat transfer on the micro- and nano-structured superhydrophobic surfaces. International Journal of Heat and Mass Transfer, 2021, 177, 121526. | 2.5 | 22 |
| 1269 | A numerical study on the sedimentation of adhesive particles in viscous fluids using LBM-LES-DEM. Powder Technology, 2021, 391, 467-478. | 2.1 | 14 |
| 1270 | Mesoscopic lattice Boltzmann simulation of droplet jumping condensation heat transfer on the microstructured surface. International Communications in Heat and Mass Transfer, 2021, 127, 105567. | 2.9 | 10 |
| 1271 | Lattice-Boltzmann model for van der Waals fluids with liquid-vapor phase transition. International Journal of Heat and Mass Transfer, 2021, 179, 121741. | 2.5 | 8 |
| 1272 | Curved boundary conditions of the lattice Boltzmann method for simulating microgaseous flows in the slip flow regime. Computers and Fluids, 2021, 230, 105117. | 1.3 | 4 |
| 1273 | Numerical coffee-ring patterns with new interfacial schemes in 3D hybrid LB-LE model. Powder Technology, 2021, 392, 130-140. | 2.1 | 3 |
| 1274 | Phase-field-lattice Boltzmann method for dendritic growth with melt flow and thermosolutal convectionâ€“diffusion. Computer Methods in Applied Mechanics and Engineering, 2021, 385, 114026. | 3.4 | 13 |
| 1275 | Numerical study of bubble behaviors and heat transfer in pool boiling of water/NaCl solutions using the lattice Boltzmann method. International Journal of Thermal Sciences, 2021, 170, 107158. | 2.6 | 11 |
| 1276 | Eulerianâ€“Lagrangian and Eulerianâ€“Eulerian approaches for the simulation of particle-laden free surface flows using the lattice Boltzmann method. Journal of Computational and Applied Mathematics, 2021, 398, 113672. | 1.1 | 2 |
| 1277 | A linear stability analysis of compressible hybrid lattice Boltzmann methods. Journal of Computational Physics, 2021, 446, 110649. | 1.9 | 22 |
| 1278 | Utilization of pressure wave-dynamics in accelerating convergence of the lattice-Boltzmann method for steady and unsteady flows. Applied Mathematics and Computation, 2021, 411, 126498. | 1.4 | 0 |
| 1279 | Insights into scale translation of methane transport in nanopores. Journal of Natural Gas Science and Engineering, 2021, 96, 104220. | 2.1 | 15 |
| 1280 | Nonlinear Thermo-Mechanical Full Coupling of Aluminum Oxide Particles Transport in Electrolytic Bath Using Lattice Boltzmann Method. Jom, 2021, 73, 823-833. | 0.9 | 2 |
| 1281 | Comprehensive hydrothermal analysis of an inclined mini-channel with fin array: by dual/multi-relaxation-time LBM and experimental process on SiO<sub>2</sub>-glycol rheological/thermal characteristics. International Journal of Numerical Methods for Heat and Fluid Flow, 2021, 31, 2405-2429. | 1.6 | 2 |
| 1282 | Effcient flow simulation on high performance computers. , 2005, , 285-305. | | 1 |
| 1283 | Massively Parallel Lattice Boltzmann Simulations of Turbulent Flow over and Inside Porous Media. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 513-527. | 0.2 | 1 |
| 1284 | The Lattice-Boltzmann Method for Multiphase Fluid Flow Simulations and Euler-Lagrange Large-Eddy Simulations. , 2007, , 181-228. | | 4 |
| 1285 | Taylor Expansion Method for Linear Lattice Boltzmann Schemes with an External Force: Application to Boundary Conditions. Lecture Notes in Computational Science and Engineering, 2014, , 89-107. | 0.1 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1286 | Kinetic Modeling and Simulation of Environmental and Civil Engineering Flow Problems. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2009, , 341-350. | 0.2 | 1 |
| 1287 | An Explicit Model for Three-Dimensional Fluid-Structure Interaction using LBM and p-FEM. Lecture Notes in Computational Science and Engineering, 2011, , 285-325. | 0.1 | 3 |
| 1288 | Large-Eddy and Detached-Eddy Simulation of the Flow Around High-Lift Configurations. , 2003, , 21-41. | | 1 |
| 1289 | Applications of the Lattice Boltzmann Method to Complex and Turbulent Flows. Lecture Notes in Computational Science and Engineering, 2002, , 123-130. | 0.1 | 12 |
| 1290 | Lattice Boltzmann modeling of transport phenomena in fuel cells and flow batteries. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 555-574. | 1.5 | 146 |
| 1291 | Cascaded lattice Boltzmann method for thermal flows on standard lattices. International Journal of Thermal Sciences, 2018, 132, 368-377. | 2.6 | 18 |
| 1292 | An immersed boundary-lattice Boltzmann method for gaseous slip flow. Physics of Fluids, 2020, 32, . | 1.6 | 11 |
| 1293 | Investigation on boundary schemes in lattice Boltzmann simulations of boiling heat transfer involving curved surfaces. Physics of Fluids, 2020, 32, 063305. | 1.6 | 24 |
| 1294 | Dissolution process of a single bubble under pressure with a large-density-ratio multicomponent multiphase lattice Boltzmann model. Physical Review E, 2020, 102, 063306. | 0.8 | 18 |
| 1295 | Lock-on of vortex shedding to a pair of synthetic jets with phase difference. Physical Review Fluids, 2017, 2, . | 1.0 | 22 |
| 1296 | Investigation of shear rates of rolling adhesion on leukocytes with bending of microvilli. Physical Review Fluids, 2019, 4, . | 1.0 | 3 |
| 1297 | Direct numerical simulation of the sedimentation of a particle pair in a shear-thinning fluid. Physical Review Fluids, 2020, 5, . | 1.0 | 11 |
| 1298 | Dynamics of droplet formation and flow regime transition in a T-shaped microfluidic device with a shear-thinning continuous phase. Physical Review Fluids, 2020, 5, . | 1.0 | 10 |
| 1299 | Lattice Boltzmann simulation of water droplet impacting a hydrophobic plate with a cylindrical pore. Physical Review Fluids, 2020, 5, . | 1.0 | 12 |
| 1300 | Analysis of depinning behavior of drop on chemically heterogeneous surface. Physical Review Fluids, 2020, 5, . | 1.0 | 10 |
| 1301 | Computational characterization of nonwoven fibrous media. II. Analysis of microstructure effects on permeability and tortuosity. Physical Review Materials, 2020, 4, . | 0.9 | 5 |
| 1302 | ANALYSIS OF TRANSIENT BLOOD FLOW PASSING THROUGH MECHANICAL HEART VALVES BY LATTICE BOLTZMANN METHODS. , 2004, , 215-245. | | 1 |
| 1303 | Design rules for creating sensing and self-actuating microcapsules. Smart Structures and Systems, 2011, 7, 199-211. | 1.9 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1304 | A Double Multi-Relaxation-Time Lattice Boltzmann Method for Simulation of Magneto Hydrodynamics Natural Convection of Nanofluid in a Square Cavity. Journal of Applied Fluid Mechanics, 2016, 9, 1201-1214. | 0.4 | 5 |
| 1305 | Add-ons for Lattice Boltzmann Methods: Regularization, Filtering and Limiters. , 2013, , 31-52. | | 4 |
| 1306 | Non-Darcy porous media flow in no-slip and slip regimes. Thermal Science, 2012, 16, 167-176. | 0.5 | 17 |
| 1307 | Cellular Automata in Complex Matter. Complex Systems, 2011, 20, 67-91. | 0.9 | 16 |
| 1308 | Lattice Boltzmann and Navier-Stokes Cartesian CFD Approaches for Airframe Noise Predictions. , 2017, , . | | 15 |
| 1309 | A brief review of the phase-field-based lattice Boltzmann method for multiphase flows. Capillarity, 2019, 2, 33-52. | 1.0 | 106 |
| 1310 | Macroscopic Lattice Boltzmann Method. Water (Switzerland), 2021, 13, 61. | 1.2 | 6 |
| 1311 | Third order equivalent equation of lattice Boltzmann scheme. Discrete and Continuous Dynamical Systems, 2008, 23, 221-248. | 0.5 | 20 |
| 1312 | Evaluation of Pressure Boundary Conditions for Permeability Calculations Using the Lattice-Boltzmann Method. Advances in Applied Mathematics and Mechanics, 2010, 2, 685-700. | 0.7 | 11 |
| 1313 | On the Comparison Between Lattice Boltzmann Methods and Spectral Methods for DNS of Incompressible Turbulent Channel Flows on Small Domain Size. Advances in Applied Mathematics and Mechanics, 2019, 11, 598-607. | 0.7 | 4 |
| 1314 | Burnett Order Stress and Spatially-Dependent Boundary Conditions for the Lattice Boltzmann Method. Communications in Computational Physics, 2020, 27, 167-197. | 0.7 | 6 |
| 1315 | Lattice Boltzmann Simulations in the Slip and Transition Flow Regime with the Peano Framework. Open Journal of Fluid Dynamics, 2012, 02, 101-110. | 0.3 | 13 |
| 1316 | Actuator line simulations of wind turbine wakes using the lattice Boltzmann method. Wind Energy Science, 2020, 5, 623-645. | 1.2 | 23 |
| 1317 | Parallel reverse time integration and reduced order models. SMAI Journal of Computational Mathematics, 0, 1, 5-28. | 0.0 | 1 |
| 1318 | NUMERICAL SIMULATION OF A THREE-LAYERED RADIANT POROUS HEAT EXCHANGER INCLUDING LATTICE BOLTZMANN SIMULATION OF FLUID FLOW. International Journal of Engineering, Transactions B: Applications, 2011, , . | 0.6 | 3 |
| 1319 | A coupled lattice Boltzmann model for fluid flow and diffusion in a porous medium. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 014702. | 0.2 | 9 |
| 1320 | Simulation of micro flow in the transition regime using effective-viscosity-based multi-relaxation-time lattice Boltzmann model. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 014703. | 0.2 | 5 |
| 1321 | Numerical study of droplet impact on the inner surface of a cylinder. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 184701. | 0.2 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1322 | Lattice Boltzmann method simulations of the immiscible Rayleigh-Taylor instability with high Reynolds numbers. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 044701. | 0.2 | 8 |
| 1323 | Investigation of the Lattice Boltzmann SRT and MRT Stability for Lid Driven Cavity Flow. International Journal of Materials Mechanics and Manufacturing, 2014, 2, 317-324. | 0.2 | 8 |
| 1324 | Wall-modeled lattice Boltzmann large-eddy simulation of neutral atmospheric boundary layers. Physics of Fluids, 2021, 33, . | 1.6 | 16 |
| 1325 | A partitioned framework for coupling LBM and FEM through an implicit IBM allowing non-conforming time-steps: Application to fluid-structure interaction in biomechanics. Journal of Computational Physics, 2022, 449, 110786. | 1.9 | 11 |
| 1326 | The effect of radiation on entropy and heat transfer of MHD nanofluids inside a quarter circular enclosure with a changing L-shaped source: lattice Boltzmann methods. Chemical Engineering Communications, 0, , 1-16. | 1.5 | 0 |
| 1327 | A Scalable Moving Boundary Treatment in the Lattice Boltzmann Method. Applied Sciences (Switzerland), 2021, 11, 9612. | 1.3 | 1 |
| 1328 | Coupled influence of wettability alteration and geometry on two-phase flow in porous media. Advances in Water Resources, 2021, 157, 104055. | 1.7 | 3 |
| 1329 | Geometry and Flow Properties Affect the Phase Shift between Pressure and Shear Stress Waves in Blood Vessels. Fluids, 2021, 6, 378. | 0.8 | 6 |
| 1330 | Two-Side-by-Side Cantilevered Cylinders in a Cross Flow. , 2006, , . | | 1 |
| 1332 | Simulation of Gas Flow in a Microchannel by Lattice Boltzmann Method. , 2009, , 195-200. | | 2 |
| 1333 | Analysis and Invariant Properties of a Lattice Boltzmann Method. Advances in Applied Mathematics and Mechanics, 2010, 2, 640-669. | 0.7 | 0 |
| 1334 | IMPROVING THE ACCURACY OF LATTICE BOLTZMANN SIMULATIONS OF LIQUID MICROFLOWS. International Journal for Multiscale Computational Engineering, 2011, 9, 89-96. | 0.8 | 0 |
| 1335 | The Boltzmann Equation. , 2012, , 215-242. | | 0 |
| 1336 | Lattice Boltzmann modeling of microscale oscillating Couette flow. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 214703. | 0.2 | 5 |
| 1337 | Numerical Simulation of Capillary Trapping of CO<sub>2</sub> in Porous Media. Journal of MMIJ, 2014, 130, 404-410. | 0.4 | 1 |
| 1338 | Study of acoustic levitation by lattice Boltzmann method. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 164301. | 0.2 | 1 |
| 1339 | Simulation of 2-dimensional flows in Modelica with the Casacaded Digital Lattice Boltzmann Method. , 2014, , . | | 0 |
| 1340 | Coupled LBM-DEM modeling of Bingham fluids with suspended particles. , 2014, , 479-484. | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1341 | Numerical Investigation of Mixing Characteristics in Cavity Flow at Various Aspect Ratios. Transactions of the Korean Society of Mechanical Engineers, B, 2015, 39, 79-88. | 0.0 | 0 |
| 1342 | Numerical investigation on drag reduction with hydrophobic surface by lattice Boltzmann method. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 184702. | 0.2 | 0 |
| 1345 | Investigation of Particles Statistics in large Eddy Simulated Turbulent Channel Flow using Generalized lattice Boltzmann Method. Journal of Applied Fluid Mechanics, 2016, 9, 1349-1357. | 0.4 | 0 |
| 1346 | Non-orthogonal multiple-relaxation-time lattice Boltzmann method for axisymmetric thermal flows. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 044701. | 0.2 | 0 |
| 1347 | Large Eddy Simulation-Based Lattice Boltzmann Method with Different Collision Models. Green Energy and Technology, 2018, , 661-683. | 0.4 | 0 |
| 1348 | Numerical Simulations Applied to Energy Efficiency for Buildings with Lattice Boltzmann Method. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1349 | Role of flexural stiffness of leukocyte microvilli in adhesion dynamics. Physical Review Fluids, 2018, 3, . | 1.0 | 2 |
| 1352 | Multi relaxation time Lattice Boltzmann analysis of lid-driven rectangular cavity subject to various obstacle configurations. International Communications in Heat and Mass Transfer, 2021, 129, 105658. | 2.9 | 9 |
| 1353 | Magnetic field-induced control of a compound ferrofluid droplet deformation and breakup in shear flow using a hybrid lattice Boltzmann-finite difference method. International Journal of Multiphase Flow, 2022, 146, 103846. | 1.6 | 18 |
| 1354 | MRT-LBM simulation of mixed convection in a horizontal channel heated from below by sinusoidal temperature profile. MATEC Web of Conferences, 2020, 330, 01042. | 0.1 | 0 |
| 1355 | Lattice Boltzmann Method for Acoustics Levitation. , 2020, , 57-77. | | 0 |
| 1356 | Computational Meshing for CFD Simulations. Biological and Medical Physics Series, 2021, , 85-115. | 0.3 | 4 |
| 1357 | Three-dimensional pseudopotential lattice Boltzmann model for multiphase flows at high density ratio. Physical Review E, 2020, 102, 053308. | 0.8 | 11 |
| 1358 | Simulation of fluid-structure interaction during the phaco-emulsification stage of cataract surgery. International Journal of Mechanical Sciences, 2022, 214, 106931. | 3.6 | 6 |
| 1359 | A high-order implicit-explicit flux reconstruction lattice Boltzmann method for viscous incompressible flows. Computers and Mathematics With Applications, 2022, 105, 13-28. | 1.4 | 7 |
| 1360 | Hydrodynamic limits and numerical errors of isothermal lattice Boltzmann schemes. Journal of Computational Physics, 2022, 450, 110858. | 1.9 | 17 |
| 1361 | Speeding-up image-based simulation of two-phase flow in porous media with lattice-Boltzmann method using three-dimensional curvelet transforms. Physics of Fluids, 2021, 33, . | 1.6 | 7 |
| 1362 | Pore-Scale Modeling of Two-Phase Flows with Soluble Surfactants in Porous Media. Energy & Fuels, 2021, 35, 19374-19388. | 2.5 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1363 | Multiphase flow simulation with three-dimensional weighted-orthogonal multiple-relaxation-time pseudopotential lattice Boltzmann model. Physics of Fluids, 2021, 33, . | 1.6 | 7 |
| 1364 | Electric control of dielectric droplets and films. Physics of Fluids, 2021, 33, 122103. | 1.6 | 8 |
| 1365 | Lattice Boltzmann simulation of solidâ€“liquid phase change with nonlinear density variation. Physics of Fluids, 2021, 33, 123302. | 1.6 | 5 |
| 1366 | LBM-MRT simulation of vertical flow of a non-Newtonian fluid in a channel provided with obstacles. E3S Web of Conferences, 2021, 321, 04006. | 0.2 | 0 |
| 1367 | Multiscale simulation of flow in gas-lubricated journal bearings: A comparative study between the Reynolds equation and lattice Boltzmann methods. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 1792-1810. | 1.5 | 3 |
| 1368 | Electrohydrodynamic effects on bubble dynamics during nucleate pool boiling under the leaky dielectric assumption. Physics of Fluids, 2022, 34, . | 1.6 | 22 |
| 1369 | Phase-field lattice Boltzmann model for two-phase flows with large density ratio. Physical Review E, 2022, 105, 015304. | 0.8 | 8 |
| 1370 | An immersed boundary-lattice Boltzmann method with hybrid multiple relaxation times for viscoplastic fluid-structure interaction problems. Applied Ocean Research, 2022, 119, 103023. | 1.8 | 5 |
| 1371 | Lattice Boltzmann Method for Simulations of Nozzle Flows in Coastal Environments. Journal of Coastal Research, 2021, 38, . | 0.1 | 1 |
| 1372 | Capillary Interactions, Aggregate Formation, and the Rheology of Particle-Laden Flows: A Lattice Boltzmann Study. Industrial & Engineering Chemistry Research, 2022, 61, 1863-1870. | 1.8 | 2 |
| 1373 | Numerical investigation of inertial, viscous, and capillary effects on the drainage process in porous media. Computers and Fluids, 2022, 237, 105324. | 1.3 | 7 |
| 1374 | Drafting, kissing, and tumbling of a pair of particles settling in non-Newtonian fluids. Physics of Fluids, 2022, 34, . | 1.6 | 6 |
| 1375 | Numerical investigation of natural convection in concentric cylinder partially heated based on MRT-lattice Boltzmann method. International Communications in Heat and Mass Transfer, 2022, 132, 105856. | 2.9 | 11 |
| 1376 | A comparative study of the cumulant lattice Boltzmann method in a single-phase free-surface model of violent flows. Computers and Fluids, 2022, 236, 105303. | 1.3 | 9 |
| 1377 | Lattice Boltzmann modeling of primary liquid film breakup at the prefilmer edge: Effects of surface wettability. Computers and Mathematics With Applications, 2022, 109, 146-157. | 1.4 | 1 |
| 1378 | Sediment transport and morphological changes in shallow flows modelled with the lattice Boltzmann method. Journal of Hydrology, 2022, 606, 127472. | 2.3 | 4 |
| 1379 | A coupled LBM-DEM method for simulating the multiphase fluid-solid interaction problem. Journal of Computational Physics, 2022, 454, 110963. | 1.9 | 27 |
| 1380 | Natural convection in an L-shaped enclosure using multi-relaxation time lattice Boltzmann method. Indian Journal of Physics, 2022, 96, 2921-2939. | 0.9 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1381 | Inertial Effect on Oil/Water Countercurrent Imbibition in Porous Media from a Pore-Scale Perspective. SPE Journal, 2022, 27, 1619-1632. | 1.7 | 5 |
| 1382 | Improved curved-boundary scheme for lattice Boltzmann simulation of microscale gas flow with second-order slip condition. Physical Review E, 2022, 105, 025310. | 0.8 | 1 |
| 1383 | Condensation Behaviors of Droplet under the Gravity Effect on Hydrophobic Surface by Using the Hybrid Thermal Pseudopotential LBM Model. , 2022, , . | | 3 |
| 1384 | Aerodynamic performance of a self-propelled airfoil with a non-zero angle of attack. Physics of Fluids, 2022, 34, 031901. | 1.6 | 5 |
| 1385 | Numerical Investigations on Temperature Distribution and Evolution of Cavitation Bubble Collapsed Near Solid Wall. Frontiers in Energy Research, 2022, 10, . | 1.2 | 0 |
| 1386 | Restoring the conservativity of characteristic-based segregated models: Application to the hybrid lattice Boltzmann method. Physics of Fluids, 2022, 34, . | 1.6 | 6 |
| 1387 | A phase field-finite difference lattice Boltzmann method for modeling dendritic growth solidification in the presence of melt convection. Computers and Mathematics With Applications, 2022, 114, 180-187. | 1.4 | 3 |
| 1388 | Role of wall temperature on cavitation bubble collapse near a wall investigated using thermal lattice Boltzmann method. International Communications in Heat and Mass Transfer, 2022, 134, 105988. | 2.9 | 17 |
| 1389 | Wetting boundary schemes in modified phase-field lattice Boltzmann method for binary fluids with large density ratios. Computers and Mathematics With Applications, 2022, 113, 243-253. | 1.4 | 4 |
| 1390 | Phase-field lattice Boltzmann method for the simulation of gas-liquid mass transfer. Chemical Engineering Science, 2022, 253, 117539. | 1.9 | 4 |
| 1391 | Pore-scale study of ion transport and intercalation processes of capacitive deionization cells with intercalation electrodes based on lattice Boltzmann method. Desalination, 2022, 532, 115718. | 4.0 | 10 |
| 1392 | Numerical modelling of equiaxed dendritic growth with sedimentation in the melt of binary alloys by using an anisotropic lattice Boltzmann-phase field model. International Journal of Thermal Sciences, 2022, 178, 107592. | 2.6 | 2 |
| 1393 | An Immersed Boundaryâ€“Lattice Boltzmann Approach to Study Deformation and Fluidâ€“Structure Interaction of Hollow Sealing Strip. Energies, 2021, 14, 8110. | 1.6 | 2 |
| 1394 | Fractal microstructure effects on effective gas diffusivity of a nanoporous medium based on pore-scale numerical simulations with lattice Boltzmann method. Physical Review E, 2021, 104, 065304. | 0.8 | 4 |
| 1395 | Numerical modeling of adjacent bubble interactions under the influence of induced vibrations in liquid pool using lattice Boltzmann method (LBM). Journal of Applied Physics, 2021, 130, . | 1.1 | 3 |
| 1396 | Optimal array layout of cylindrical baffles to reduce energy of rock avalanche. Journal of Mountain Science, 2022, 19, 493-512. | 0.8 | 5 |
| 1397 | Unified lattice Boltzmann method with improved schemes for multiphase flow simulation: Application to droplet dynamics under realistic conditions. Physical Review E, 2022, 105, 045314. | 0.8 | 12 |
| 1398 | Low-Reynolds-number wake of three tandem elliptic cylinders. Physics of Fluids, 2022, 34, . | 1.6 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1399 | A lattice Boltzmann study on the bouncing behavior of equal-sized droplet collision. Physics of Fluids, 2022, 34, 043318. | 1.6 | 3 |
| 1400 | Surface thermodynamics and wetting condition in the multiphase lattice Boltzmann model with self-tuning equation of state. Journal of Fluid Mechanics, 2022, 940, . | 1.4 | 12 |
| 1401 | Discrete-velocity Boltzmann model: Regularization and linear stability. Physical Review E, 2022, 105, 045312. | 0.8 | 4 |
| 1402 | Local hybrid Allen-Cahn model in phase-field lattice Boltzmann method for incompressible two-phase flow. Physical Review E, 2022, 105, 045307. | 0.8 | 2 |
| 1404 | A Discrete Nine-Velocity Model of the Boltzmann Equation: Solution in the Form of Wild Sum and Applications to Simulating Incompressible Flows. Computational Mathematics and Mathematical Physics, 2022, 62, 685-699. | 0.2 | 1 |
| 1405 | Recent progress of lattice Boltzmann method and its applications in fluid-structure interaction. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2023, 237, 2461-2484. | 1.1 | 6 |
| 1406 | Effect of a Flat Plate on Drag Force Reduction and Heat Transfer Characteristics Around Three Heated Square Obstacles. Journal of Physics: Conference Series, 2022, 2178, 012027. | 0.3 | 2 |
| 1407 | Noise reduction in cavity flow by addition of porous media. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, . | 1.5 | 4 |
| 1408 | Numerical analysis of heat transfer evacuation from a cavity confining coated micro-pin fin heat sink using lattice Boltzmann approach. European Physical Journal Plus, 2022, 137, . | 1.2 | 2 |
| 1409 | Synthetic turbulence generator for lattice Boltzmann method at the interface between RANS and LES. Physics of Fluids, 2022, 34, . | 1.6 | 15 |
| 1410 | Numerical Investigation of Convective Heat Transfer and Fluid Flow Past a Three Square Cylinders Controlled by a Partition in Channel. International Journal of Renewable Energy Development, 2022, 11, 766-781. | 1.2 | 5 |
| 1411 | Multiscale modeling of gas flow behaviors in nanoporous shale matrix considering multiple transport mechanisms. Physical Review E, 2022, 105, . | 0.8 | 10 |
| 1412 | Pseudopotential Lattice Boltzmann Method for boiling heat transfer: A mesh refinement procedure. Applied Thermal Engineering, 2022, 213, 118705. | 3.0 | 5 |
| 1413 | Lattice Boltzmann Model for Oil/Water Two-Phase Flow in Nanoporous Media Considering Heterogeneous Viscosity, Liquid/Solid, and Liquid/Liquid Slip. SPE Journal, 2022, 27, 3508-3524. | 1.7 | 8 |
| 1414 | A theoretical analysis of mass leakage at boundaries within the lattice Boltzmann method. Physics of Fluids, 2022, 34, . | 1.6 | 5 |
| 1415 | Natural convection heat transfer with anisotropic thermal diffusion for tilted two-dimensional cavities. International Journal of Heat and Mass Transfer, 2022, 194, 123000. | 2.5 | 9 |
| 1417 | Effect of a Detached Bi-Partition on the Drag Reduction for Flow Past a Square Cylinder. International Journal of Renewable Energy Development, 2022, 11, 902-915. | 1.2 | 2 |
| 1418 | Modeling the deformation and breakup of a surfactant-coated droplet on a roughness solid surface in shear flow. AIP Advances, 2022, 12, 065313. | 0.6 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1419 | Numerical Investigation of Two In-Line Two-Dimensional Bubbles Rising in a Two-Dimensional Quiescent Ambient Liquid by a Conservative Phase-Field Lattice Boltzmann Method. Discrete Dynamics in Nature and Society, 2022, 2022, 1-12. | 0.5 | 0 |
| 1420 | Numerical study of natural convective heat transfer of nanofluids within a porous corrugated triangular cavity in the presence of a magnetic field. Numerical Heat Transfer; Part A: Applications, 0, , 1-27. | 1.2 | 5 |
| 1421 | Mesoscopic approach for nanoscale liquid-vapor interfacial statics and dynamics. International Journal of Heat and Mass Transfer, 2022, 194, 123104. | 2.5 | 6 |
| 1422 | Lattice Boltzmann study of dissolution in porous media: Comparison of VOP with VOF-curved boundary coupling. Journal of Petroleum Science and Engineering, 2022, 216, 110754. | 2.1 | 5 |
| 1423 | Global linear instability analysis of thermal convective flow using the linearized lattice Boltzmann method. Journal of Fluid Mechanics, 2022, 944, . | 1.4 | 6 |
| 1424 | Effects of pore scale and conjugate heat transfer on thermal convection in porous media. Journal of Fluid Mechanics, 2022, 944, . | 1.4 | 7 |
| 1425 | Enhancement of heat and mass transfer by herringbone microstructures in a simple shear flow. Physics of Fluids, 0, , . | 1.6 | 1 |
| 1426 | Simplified method for wetting on curved boundaries in conservative phase-field lattice-Boltzmann simulation of two-phase flows with large density ratios. Physics of Fluids, 2022, 34, . | 1.6 | 8 |
| 1427 | Wettability control on imbibition behavior of oil and water in porous media. Physics of Fluids, 2022, 34, . | 1.6 | 9 |
| 1428 | Investigation of mass transfer model of CO2 absorption with Rayleigh convection using multi-relaxation time lattice Boltzmann method. Chinese Journal of Chemical Engineering, 2022, , . | 1.7 | 2 |
| 1429 | Stability conditions of multiple-relaxation-time lattice Boltzmann model for seismic wavefield modeling. Journal of Applied Geophysics, 2022, 204, 104742. | 0.9 | 5 |
| 1430 | Flow and Heat Transfer of Liquid Nitrogen in Rock Pores Based on Lattice Boltzmann Method. Transport in Porous Media, 0, , . | 1.2 | 1 |
| 1431 | Multiphase curved boundary condition in lattice Boltzmann method. Physical Review E, 2022, 106, . | 0.8 | 7 |
| 1432 | From Transient to Stationary Transport in Porous Networks under Various Adsorption Conditions and Kinetics. Journal of Physical Chemistry B, 2022, 126, 6125-6135. | 1.2 | 0 |
| 1433 | Streamline penetration, velocity error, and consequences of the feedback immersed boundary method. Physics of Fluids, 2022, 34, . | 1.6 | 13 |
| 1434 | Taichi-LBM3D: A Single-Phase and Multiphase Lattice Boltzmann Solver on Cross-Platform Multicore CPU/GPUs. Fluids, 2022, 7, 270. | 0.8 | 5 |
| 1435 | Modeling the Wettability of Microstructured Hydrophobic Surface Using Multiple-relaxation-time Lattice Boltzmann Method. Journal of Bionic Engineering, 2022, 19, 1460-1471. | 2.7 | 1 |
| 1436 | Influence of slip effect on viscous dissipation heat and lubrication characteristics of Gas Journal Bearing: A multiscale analysis. Numerical Heat Transfer; Part A: Applications, 0, , 1-18. | 1.2 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1437 | Multiresolution-Based Mesh Adaptation and Error Control for Lattice Boltzmann Methods with Applications to Hyperbolic Conservation Laws. SIAM Journal of Scientific Computing, 2022, 44, A2599-A2627. | 1.3 | 3 |
| 1438 | A systematic study of hidden errors in the bounce-back scheme and their various effects in the lattice Boltzmann simulation of viscous flows. Physics of Fluids, 2022, 34, . | 1.6 | 7 |
| 1439 | Preconditioned central moment lattice Boltzmann method on a rectangular lattice grid for accelerated computations of inhomogeneous flows. Journal of Computational Science, 2022, 63, 101821. | 1.5 | 1 |
| 1440 | LBM study of ice nucleation induced by the collapse of cavitation bubbles. Computers and Fluids, 2022, 246, 105616. | 1.3 | 2 |
| 1441 | Numerical study of surfactant effects on the rise of a single bubble and two coaxial bubbles. International Communications in Heat and Mass Transfer, 2022, 137, 106284. | 2.9 | 6 |
| 1442 | Lattice-Boltzmann modeling of lifted hydrogen jet flames: A new model for hazardous ignition prediction. Combustion and Flame, 2022, 245, 112317. | 2.8 | 7 |
| 1443 | Impact and boiling characteristics of a droplet on heated surfaces: A 3D lattice Boltzmann study. Applied Thermal Engineering, 2023, 219, 119360. | 3.0 | 7 |
| 1444 | Application of immersed boundary-lattice boltzmann method in failure of automobile door sealing strip. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2024, 238, 187-197. | 1.1 | 0 |
| 1445 | Two pressure boundary conditions for multi-component multiphase flow simulations using the pseudo-potential lattice Boltzmann model. Computers and Fluids, 2022, 248, 105672. | 1.3 | 5 |
| 1446 | Three-dimensional study of double droplets impact on a wettability-patterned surface. Computers and Fluids, 2022, 248, 105669. | 1.3 | 9 |
| 1447 | On the magnetic nanoparticle injection strategy for hyperthermia treatment. International Journal of Mechanical Sciences, 2022, 235, 107707. | 3.6 | 7 |
| 1448 | Lattice Boltzmann study of bubble dynamic behaviors and heat transfer performance during flow boiling in a serpentine microchannel. Applied Thermal Engineering, 2023, 218, 119331. | 3.0 | 15 |
| 1449 | Wall Wettability Effects on the Collapse of the Attached Vapor Cavitation Bubble with a Thermal Lattice Boltzmann Method. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1450 | Double Population Lattice Boltzmann Model for Magneto-Hydrodynamic Blood Flow in Stenotic Artery. Lecture Notes in Computer Science, 2022, , 130-141. | 1.0 | 1 |
| 1451 | Wall Wettability Effect on Process of Collapse of Single Cavitation Bubbles in Near-Wall Region Using Pseudo-Potential Lattice Boltzmann Method. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1452 | Cavitation bubbles with a tunable-surface-tension thermal lattice Boltzmann model. Physics of Fluids, 2022, 34, . | 1.6 | 10 |
| 1453 | Mesoscopic modeling of vapor cavitation bubbles collapse and interaction in near-wall region with a pseudopotential lattice Boltzmann method. Physics of Fluids, 2022, 34, . | 1.6 | 12 |
| 1454 | Influence of wettability in immiscible displacements with lattice Boltzmann method. Journal of Zhejiang University: Science A, 2022, 23, 704-720. | 1.3 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1455 | Unit conversion in pseudopotential lattice Boltzmann method for liquidâ€“vapor phase change simulations. Physics of Fluids, 2022, 34, . | 1.6 | 6 |
| 1456 | Near-wall vortices and thermal simulation of coupled-domain transpiration cooling by a recursive regularized lattice Boltzmann method. Physics of Fluids, 2022, 34, . | 1.6 | 7 |
| 1457 | Multidimensional fully adaptive lattice Boltzmann methods with error control based on multiresolution analysis. Journal of Computational Physics, 2022, 471, 111670. | 1.9 | 3 |
| 1458 | Multiple relaxation time lattice Boltzmann schemes for advection-diffusion equations with application to radar image processing. Journal of Computational Physics, 2022, 471, 111612. | 1.9 | 8 |
| 1459 | Development Progress of SWLBM a Framework Based on Lattice Boltzmann Method for Fluid Dynamics Simulation. Lecture Notes in Computer Science, 2022, , 62-71. | 1.0 | 0 |
| 1460 | High accuracy analysis of adaptive multiresolution-based lattice Boltzmann schemes via the equivalent equations. SMAI Journal of Computational Mathematics, 0, 8, 161-199. | 0.0 | 1 |
| 1461 | Low Dissipative Entropic Lattice Boltzmann Method. Mathematics, 2022, 10, 3928. | 1.1 | 2 |
| 1462 | Improved contact angle measurement in multiphase lattice Boltzmann. Chinese Physics B, 2023, 32, 054701. | 0.7 | 2 |
| 1463 | Parallel Scheme for Multi-Layer Refinement Non-Uniform Grid Lattice Boltzmann Method Based on Load Balancing. Energies, 2022, 15, 7884. | 1.6 | 1 |
| 1464 | Numerical investigations of free and forced convection with various features using mesoscopic Lattice Boltzmann method. Materials Today: Proceedings, 2022, 68, 2658-2664. | 0.9 | 1 |
| 1465 | Effect of magnetic field on particle deposition in a modeled room. Particulate Science and Technology, 2023, 41, 361-370. | 1.1 | 4 |
| 1466 | Study on wetting and spreading behaviors of compound droplets on wedge by lattice Boltzmann method. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 024701. | 0.2 | 1 |
| 1467 | Convective flow over heat dissipating fins for application of electronic package cooling using curved boundary scheme lattice Boltzmann method. International Journal of Numerical Methods for Heat and Fluid Flow, 2023, 33, 1184-1202. | 1.6 | 6 |
| 1468 | Multiple-distribution-function lattice Boltzmann method for convection-diffusion-system-based incompressible Navier-Stokes equations. Physical Review E, 2022, 106, . | 0.8 | 5 |
| 1469 | Thermal lattice Boltzmann model for liquid-vapor phase change. Physical Review E, 2022, 106, . | 0.8 | 7 |
| 1470 | An effective pseudo-potential lattice Boltzmann model with extremely large density ratio and adjustable surface tension. Physics of Fluids, 2022, 34, . | 1.6 | 4 |
| 1471 | Hybrid Lattice-Boltzmann-Potential Flow Simulations of Turbulent Flow around Submerged Structures. Journal of Marine Science and Engineering, 2022, 10, 1651. | 1.2 | 0 |
| 1472 | Prediction of spontaneous imbibition with gravity in porous media micromodels. Journal of Fluid Mechanics, 2022, 952, . | 1.4 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1473 | Wall wettability effects on the collapse of the attached vapor cavitation bubble with a thermal lattice Boltzmann method. International Communications in Heat and Mass Transfer, 2023, 140, 106529. | 2.9 | 9 |
| 1474 | Movable and Focus-Tunable Lens Based on Electrically Controllable Liquid: A Lattice Boltzmann Study. Entropy, 2022, 24, 1714. | 1.1 | 1 |
| 1475 | Modeling of droplet dynamics with soluble surfactant by multi-relaxation-time phase-field lattice Boltzmann method. Physics of Fluids, 2023, 35, . | 1.6 | 5 |
| 1476 | Lattice Boltzmann method with nonreflective boundary conditions for low Mach number combustion. Proceedings of the Combustion Institute, 2023, 39, 5365-5373. | 2.4 | 1 |
| 1477 | Numerical Study on Heat-Transfer Characteristics of Convection Melting in Metal Foam under Sinusoidal Temperature Boundary Conditions. Entropy, 2022, 24, 1779. | 1.1 | 1 |
| 1478 | Phaseâ€fieldâ€based multipleâ€distributionâ€function lattice Boltzmann method for incompressible twoâ€phase flows. International Journal for Numerical Methods in Fluids, 2023, 95, 683-709. | 0.9 | 1 |
| 1479 | Scalable Simulation of Pressure Gradient-Driven Transport of Rarefied Gases in Complex Permeable Media Using Lattice Boltzmann Method. Fluids, 2023, 8, 1. | 0.8 | 4 |
| 1480 | A brief on the application of multiphase lattice Boltzmann method for boiling and evaporation. Journal of Thermal Analysis and Calorimetry, 2023, 148, 2869-2904. | 2.0 | 7 |
| 1481 | Lattice Boltzmann modelling of isothermal two-component evaporation in porous media. Journal of Fluid Mechanics, 2023, 955, . | 1.4 | 19 |
| 1482 | Enhancement of mixed convection heat transfer in a square cavity via a freely moving elastic ring. Theoretical and Computational Fluid Dynamics, 0, , . | 0.9 | 0 |
| 1483 | Double multiple-relaxation-time model of lattice-Boltzmann magnetohydrodynamics at low magnetic Reynolds numbers. Physics of Fluids, 2023, 35, . | 1.6 | 3 |
| 1484 | Enhanced coalescence-induced droplet jumping on V-shaped superhydrophobic surface with a triangular prism. Physics of Fluids, 2023, 35, . | 1.6 | 5 |
| 1485 | EquationsÂof state in multiphase lattice Boltzmann method revisited. Physical Review E, 2023, 107, . | 0.8 | 3 |
| 1486 | Thermodynamics of the inception and interactions of multiple laser-produced cavitation bubbles using the lattice Boltzmann method. Computers and Fluids, 2023, 252, 105771. | 1.3 | 8 |
| 1487 | A numerical study of the MRT-LBM for the shallow water equation in high Reynolds number flows: An application to real-world tsunami simulation. Nuclear Engineering and Design, 2023, 404, 112159. | 0.8 | 1 |
| 1488 | Wall wettability effect on process of collapse of single cavitation bubbles in near-wall region using pseudo-potential lattice Boltzmann method. Heliyon, 2022, 8, e12636. | 1.4 | 5 |
| 1489 | Multiple Vapor Cavitation Bubble Interactions with a Thermal Lattice Boltzmann Method. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1490 | Dynamic Mode Decomposition for Unsteady Flow over Flapping Wings. , 2023, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1491 | Truncation errors and modified equations for the lattice Boltzmann methodviathe corresponding Finite Difference schemes. , 2023, 57, 1225-1255. | | 3 |
| 1492 | Numerical Study of Passively Pitching Tandem Dragonfly Wings for Hovering Flight. , 2023, , . | | 0 |
| 1493 | Rigid spheroid migration in square channel flow of power-law fluids. International Journal of Mechanical Sciences, 2023, 247, 108194. | 3.6 | 3 |
| 1494 | Efficient Quality Diversity Optimization of 3D Buildings through 2D Pre-optimization. Evolutionary Computation, 0, , 1-21. | 2.3 | 0 |
| 1495 | Stratified Taylorâ€“Green vortex by lattice Boltzmann methods: Influence of stencils, forcing schemes, and collision models. Computers and Fluids, 2023, 256, 105838. | 1.3 | 1 |
| 1496 | A VOS based Immersed Boundary-Lattice Boltzmann method for incompressible fluid flows with complex and moving boundaries. Computers and Fluids, 2023, 255, 105832. | 1.3 | 4 |
| 1498 | Minimum superheat imposed by equations of state in modelling the phase transition. International Journal of Thermal Sciences, 2023, 189, 108288. | 2.6 | 4 |
| 1499 | A hybrid lattice Boltzmann - Navier-Stokes method for unsteady aerodynamic and aeroacoustic computations. Journal of Computational Physics, 2023, 485, 112098. | 1.9 | 3 |
| 1500 | Entropic lattice Boltzmann methods: A review. Computers and Fluids, 2023, 259, 105884. | 1.3 | 5 |
| 1501 | On the Magnus effect of a rotating porous circular cylinder in uniform flow: A lattice Boltzmann study. Physics of Fluids, 2023, 35, 023608. | 1.6 | 1 |
| 1502 | Numerical simulation of bubbly flows by the improved lattice Boltzmann method for incompressible two-phase flows. Computers and Fluids, 2023, 254, 105797. | 1.3 | 7 |
| 1503 | Lattice Boltzmann simulation of ice droplet melting process and motion behavior in gas diffusion layer of proton exchange membrane fuel cell under thermal purging. Ionics, 2023, 29, 1553-1569. | 1.2 | 2 |
| 1504 | Pore-scale study on miscible thermal displacing process in porous media using lattice Boltzmann method. Physics of Fluids, 2023, 35, 023109. | 1.6 | 1 |
| 1505 | Unified directional parabolic-accurate lattice Boltzmann boundary schemes for grid-rotated narrow gaps and curved walls in creeping and inertial fluid flows. Physical Review E, 2023, 107, . | 0.8 | 0 |
| 1506 | Discrete unified gas kinetic scheme for continuum compressible flows. Physical Review E, 2023, 107, . | 0.8 | 6 |
| 1507 | Comparative study of two-relaxation time lattice Boltzmann and finite element methods for a planar 4:1 contraction flow: a Newtonian fluid at finite Reynolds numbers. Korea Australia Rheology Journal, 2023, 35, 47-54. | 0.7 | 2 |
| 1508 | Contact Angle Measurement on Curved Wetting Surfaces in Multiphase Lattice Boltzmann Method. Langmuir, 2023, 39, 2974-2984. | 1.6 | 1 |
| 1509 | Electrohydrodynamic viscous fingering of leaky dielectric fluids in a channel. Physics of Fluids, 2023, 35, 034105. | 1.6 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1510 | Numerical simulations of miscible displacement in an inclined channel by lattice Boltzmann method. Physics of Fluids, 2023, 35, . | 1.6 | 3 |
| 1511 | A New Multi-Level Grid Multiple-Relaxation-Time Lattice Boltzmann Method with Spatial Interpolation. Mathematics, 2023, 11, 1089. | 1.1 | 4 |
| 1512 | A joint absorbing boundary for the multiple-relaxation-time lattice Boltzmann method in seismic acoustic wavefield modeling. Petroleum Science, 2023, 20, 2113-2126. | 2.4 | 5 |
| 1513 | Toward learning Lattice Boltzmann collision operators. European Physical Journal E, 2023, 46, . | 0.7 | 2 |
| 1514 | Phase-field lattice Boltzmann model of growth and buoyancy driven motion of dendritic particles: the effect of Coriolis force. IOP Conference Series: Materials Science and Engineering, 2023, 1274, 012047. | 0.3 | 0 |
| 1515 | Study of Aerodynamic Characteristics of Self-propelled Airfoils with Tandem Configuration. Lecture Notes in Electrical Engineering, 2023, , 3329-3341. | 0.3 | 0 |
| 1516 | Assessment of lattice Boltzmann method for low-rise building wind flow simulation with limited resources. Discrete and Continuous Dynamical Systems - Series S, 2023, . | 0.6 | 0 |
| 1517 | Effects of the depth of the needleâ€shaped water dispersion device inserted into the jet on the jet breakup of sprinklers. Irrigation and Drainage, 2023, 72, 887-909. | 0.8 | 2 |
| 1518 | Analysis of Hierarchical Grid Refinement Techniques for the Lattice Boltzmann Method by Numerical Experiments. Fluids, 2023, 8, 103. | 0.8 | 1 |
| 1519 | Comprehensive comparison between the lattice Boltzmann and Navierâ€“Stokes methods for aerodynamic and aeroacoustic applications. Computers and Fluids, 2023, 257, 105881. | 1.3 | 8 |
| 1520 | Comparing classical electrodynamic theories predicting deformation of a water droplet in a tightly focused Gaussian beam. Physics of Fluids, 2023, 35, 042008. | 1.6 | 1 |
| 1521 | A multipleâ€relaxationâ€time lattice Boltzmann model for Burgers equation. Mathematical Methods in the Applied Sciences, 2023, 46, 13342-13351. | 1.2 | 0 |
| 1522 | Numerical study of a hybrid thermal lattice Boltzmann method for pool boiling heat transfer on a modeled hydrophilic metal foam surface. Applied Thermal Engineering, 2023, 229, 120535. | 3.0 | 1 |
| 1523 | A result of convergence for a mono-dimensional two-velocities lattice Boltzmann scheme. Discrete and Continuous Dynamical Systems - Series S, 2023, . | 0.6 | 2 |
| 1524 | Coupling Phase-Field LBâ€“MP Method for Multiphase Fluidâ€“Deformable Solid Interaction Problems Involving Large Density and Viscosity Contrasts. International Journal of Applied Mechanics, 2023, 15, . | 1.3 | 2 |
| 1525 | Effect of gravity on phase transition for liquidâ€“gas simulations. Physics of Fluids, 2023, 35, 043324. | 1.6 | 1 |
| 1526 | Lattice Boltzmann method for heat transfer in transitional flows with unified single-node curved boundary conditions. International Journal of Heat and Mass Transfer, 2023, 210, 124167. | 2.5 | 4 |
| 1591 | Accelerating Large-Scale CFD Simulations with Lattice Boltzmann Method on a 40-Million-Core Sunway Supercomputer. , 2023, , . | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1600 | Applications of lattice Boltzmann method combined with smoothed profile method for particulate flows: a brief review. Korea Australia Rheology Journal, 2023, 35, 213-228. | 0.7 | 0 |
| 1612 | Computational analysis of efficient transient multi-relaxation-time LBM for bounded domains. AIP Conference Proceedings, 2023, , . | 0.3 | 0 |