Yanbiao Gan

List of Publications by Year in descending order

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68 papers	1,921 citations	201674 27 h-index	265206 42 g-index
68 all docs	68 docs citations	68 times ranked	478 citing authors

#	Article	IF	Citations
1	Discrete Boltzmann modeling of plasma shock wave. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2023, 237, 2532-2548.	2.1	10
2	Discrete Boltzmann modeling of detonation: Based on the Shakhov model. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2023, 237, 2517-2531.	2.1	7
3	Effects of the initial perturbations on the Rayleighâ€"Taylorâ€"Kelvinâ€"Helmholtz instability system. Frontiers of Physics, 2022, 17, 1.	5.0	14
4	Non-equilibrium characteristics of mass and heat transfers in the slip flow. AIP Advances, 2022, 12, .	1.3	8
5	A multi-feature predicting model of crown evolution involving material properties. AIP Advances, 2022, 12, 055104.	1.3	0
6	Discrete Boltzmann modeling of Rayleigh-Taylor instability: Effects of interfacial tension, viscosity, and heat conductivity. Physical Review E, 2022, 106, .	2.1	12
7	Discrete Boltzmann modeling of high-speed compressible flows with various depths of non-equilibrium. Physics of Fluids, 2022, 34, .	4.0	19
8	Multiple-relaxation-time discrete Boltzmann modeling of multicomponent mixture with nonequilibrium effects. Physical Review E, 2021, 103, 013305.	2.1	20
9	Delineation of the flow and mixing induced by Rayleighâ€"Taylor instability through tracers. Physics of Fluids, 2021, 33, .	4.0	17
10	Gas Production from Fractured Hydrate Reservoirs: Numerical Modeling and Evaluation. Energy Technology, 2021, 9, 2100518.	3.8	1
11	Morphological and non-equilibrium analysis of coupled Rayleighâ€"Taylorâ€"Kelvinâ€"Helmholtz instability. Physics of Fluids, 2020, 32, .	4.0	27
12	Frictional effect of bottom wall on granular flow through an aperture on a conveyor belt. Powder Technology, 2020, 367, 421-426.	4.2	3
13	Knudsen Number Effects on Two-Dimensional Rayleighâ€"Taylor Instability in Compressible Fluid: Based on a Discrete Boltzmann Method. Entropy, 2020, 22, 500.	2.2	20
14	Prediction of ternary alkaline-earth metal Sn(II) and Pb(II) chalcogenide semiconductors. Physical Review Materials, 2020, 4, .	2.4	1
15	Two-fluid discrete Boltzmann model for compressible flows: Based on ellipsoidal statistical Bhatnagarâ€"Grossâ€"Krook. Physics of Fluids, 2020, 32, .	4.0	11
16	Synergistic effect of electron cyclotron current drive and poloidal shear flow on the tearing mode. AIP Advances, 2019, 9, 075122.	1.3	0
17	Comparative study on several criteria for non-equilibrium phase separation. AIP Conference Proceedings, 2019, , .	0.4	0
18	Nonequilibrium and morphological characterizations of Kelvinâ€"Helmholtz instability in compressible flows. Frontiers of Physics, 2019, 14, 1.	5.0	41

#	Article	IF	Citations
19	Kinetic Simulation of Nonequilibrium Kelvin-Helmholtz Instability. Communications in Theoretical Physics, 2019, 71, 132.	2.5	11
20	Morphology Effect of Surface Structures on Microchannel Flow Using Lattice Boltzmann Method. Geofluids, 2019, 2019, 1-14.	0.7	4
21	Entropy production in thermal phase separation: a kinetic-theory approach. Soft Matter, 2019, 15, 2245-2259.	2.7	27
22	Discrete Boltzmann method for non-equilibrium flows: Based on Shakhov model. Computer Physics Communications, 2019, 238, 50-65.	7.5	29
23	Three-dimensional discrete Boltzmann models for compressible flows in and out of equilibrium. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 477-490.	2.1	9
24	Comparative study of discrete Boltzmann model and Navier-Stokes. Journal of Physics: Conference Series, 2018, 1113, 012015.	0.4	1
25	Collaboration and competition between Richtmyer-Meshkov instability and Rayleigh-Taylor instability. Physics of Fluids, 2018, 30, .	4.0	38
26	Discrete Boltzmann trans-scale modeling of high-speed compressible flows. Physical Review E, 2018, 97, 053312.	2.1	58
27	Thermodynamic Nonequilibrium Features in Binary Diffusion. Communications in Theoretical Physics, 2018, 69, 722.	2.5	4
28	Discrete Boltzmann simulation of Rayleigh-Taylor instability in compressible flows. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 080501.	0.5	12
29	Discrete Boltzmann modeling of Rayleigh-Taylor instability in two-component compressible flows. Physical Review E, 2017, 96, 053305.	2.1	41
30	Complex fields in heterogeneous materials under shock: modeling, simulation and analysis. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	18
31	Nonequilibrium thermohydrodynamic effects on the Rayleigh-Taylor instability in compressible flows. Physical Review E, 2016, 94, 023106.	2.1	75
32	Kinetic modeling of detonation and effects of negative temperature coefficient. Combustion and Flame, 2016, 173, 483-492.	5.2	40
33	Double-distribution-function discrete Boltzmann model for combustion. Combustion and Flame, 2016, 164, 137-151.	5.2	76
34	Multiple-relaxation-time lattice Boltzmann kinetic model for combustion. Physical Review E, 2015, 91, 043306.	2.1	73
35	Discrete Boltzmann modeling of multiphase flows: hydrodynamic and thermodynamic non-equilibrium effects. Soft Matter, 2015, 11, 5336-5345.	2.7	115
36	Lattice Boltzmann kinetic modeling and simulation of thermal liquidâ€“vapor system. International Journal of Modern Physics C, 2014, 25, 1441002.	1.7	2

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37	Polar-coordinate lattice Boltzmann modeling of compressible flows. Physical Review E, 2014, 89, 013307.	2.1	47
38	Cellular Automata Model for Elastic Solid Material. Communications in Theoretical Physics, 2013, 59, 59-67.	2.5	6
39	Lattice BGK kinetic model for high-speed compressible flows: Hydrodynamic and nonequilibrium behaviors. Europhysics Letters, 2013, 103, 24003.	2.0	49
40	FFT-LB Modeling of Thermal Liquid-Vapor System. Communications in Theoretical Physics, 2012, 57, 681-694.	2.5	16
41	Physical modeling of multiphase flow via lattice Boltzmann method: Numerical effects, equation of state and boundary conditions. Frontiers of Physics, 2012, 7, 481-490.	5.0	18
42	Dynamics of spiral waves driven by a dichotomous periodic signal. Nonlinear Dynamics, 2012, 70, 1719-1730.	5.2	13
43	Lattice Boltzmann study of thermal phase separation: Effects of heat conduction, viscosity and Prandtl number. Europhysics Letters, 2012, 97, 44002.	2.0	31
44	Lattice Boltzmann modeling and simulation of compressible flows. Frontiers of Physics, 2012, 7, 582-600.	5.0	100
45	Flux Limiter Lattice Boltzmann Scheme Approach to Compressible Flows with Flexible Specific-Heat Ratio and Prandtl Number. Communications in Theoretical Physics, 2011, 56, 490-498.	2.5	22
46	Multiple-relaxation-time lattice Boltzmann model for compressible fluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2129-2139.	2.1	33
47	Phase separation in thermal systems: A lattice Boltzmann study and morphological characterization. Physical Review E, 2011, 84, 046715.	2.1	47
48	Lattice Boltzmann study on Kelvin-Helmholtz instability: Roles of velocity and density gradients. Physical Review E, 2011, 83, 056704.	2.1	62
49	Cluster identification and characterization of physical fields. Science China: Physics, Mechanics and Astronomy, 2010, 53, 1610-1618.	5.1	4
50	Temperature pattern dynamics in shocked porous materials. Science China: Physics, Mechanics and Astronomy, 2010, 53, 1466-1474.	5.1	6
51	Shock wave response of porous materials: from plasticity to elasticity. Physica Scripta, 2010, 81, 055805.	2.5	4
52	Multiple-relaxation-time lattice Boltzmann approach to compressible flows with flexible specific-heat ratio and Prandtl number. Europhysics Letters, 2010, 90, 54003.	2.0	68
53	Morphological characterization of shocked porous material. Journal Physics D: Applied Physics, 2009, 42, 075409.	2.8	15
54	Simulating liquid-vapor phase separation under shear with lattice Boltzmann method. Science in China Series G: Physics, Mechanics and Astronomy, 2009, 52, 1337-1344.	0.2	3

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55	Highly Efficient Lattice Boltzmann Model for Compressible Fluids: Two-Dimensional Case. Communications in Theoretical Physics, 2009, 52, 681-693.	2.5	25
56	Two-dimensional lattice Boltzmann model for compressible flows with high Mach number. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 1721-1732.	2.6	79
57	Finite-Difference Lattice Boltzmann Scheme for High-Speed Compressible Flow: Two-Dimensional Case. Communications in Theoretical Physics, 2008, 50, 201-210.	2.5	9
58	LATTICE BOLTZMANN APPROACH TO HIGH-SPEED COMPRESSIBLE FLOWS. International Journal of Modern Physics C, 2007, 18, 1747-1764.	1.7	38
59	Simulations of complex fluids by mixed lattice Boltzmannâ€"finite difference methods. Physica A: Statistical Mechanics and Its Applications, 2006, 362, 42-47.	2.6	29
60	Two-Dimensional Lattice Boltzmann Methods Based on Sirovich's Kinetic Theory. Progress of Theoretical Physics Supplement, 2006, 162, 197-203.	0.1	7
61	Morphologies and flow patterns in quenching of lamellar systems with shear. Physical Review E, 2006, 74, 011505.	2.1	54
62	Two-dimensional finite-difference lattice Boltzmann method for the complete Navier-Stokes equations of binary fluids. Europhysics Letters, 2005, 69, 214-220.	2.0	29
63	Finite-difference lattice-Boltzmann methods for binary fluids. Physical Review E, 2005, 71, 066706.	2.1	48
64	Scaling and hydrodynamic effects in lamellar ordering. Europhysics Letters, 2005, 71, 651-657.	2.0	46
65	Phase separation of incompressible binary fluids with lattice Boltzmann methods. Physica A: Statistical Mechanics and Its Applications, 2004, 331, 10-22.	2.6	67
66	Numerical study of the ordering properties of lamellar phase. Physica A: Statistical Mechanics and Its Applications, 2004, 344, 750-756.	2.6	23
67	Phase-separating binary fluids under oscillatory shear. Physical Review E, 2003, 67, 056105.	2.1	73
68	Discrete Boltzmann Modeling of Compressible Flows. , 0, , .		6