Xiaoyi He

List of Publications by Year
in descending order

33 papers	11,239 citations	201674 27 h-index	395702 33 g-index
33 all docs	33 docs citations	33 times ranked	5073 citing authors

#	Article	IF	Citations
1	On pressure and velocity boundary conditions for the lattice Boltzmann BGK model. Physics of Fluids, 1997, 9, 1591-1598.	4.0	1,843
2	Theory of the lattice Boltzmann method: From the Boltzmann equation to the lattice Boltzmann equation. Physical Review E, 1997, 56, 6811-6817.	2.1	1,328
3	A Novel Thermal Model for the Lattice Boltzmann Method in Incompressible Limit. Journal of Computational Physics, 1998, 146, 282-300.	3.8	1,194
4	Lattice Boltzmann Model for the Incompressible Navier–Stokes Equation. Journal of Statistical Physics, 1997, 88, 927-944.	1.2	953
5	A Lattice Boltzmann Scheme for Incompressible Multiphase Flow and Its Application in Simulation of Rayleigh–Taylor Instability. Journal of Computational Physics, 1999, 152, 642-663.	3.8	945
6	A priori derivation of the lattice Boltzmann equation. Physical Review E, 1997, 55, R6333-R6336.	2.1	629
7	Analytic solutions of simple flows and analysis of nonslip boundary conditions for the lattice Boltzmann BGK model. Journal of Statistical Physics, 1997, 87, 115-136.	1.2	589
8	Pulsatile Flow in the Human Left Coronary Artery Bifurcation: Average Conditions. Journal of Biomechanical Engineering, 1996, 118, 74-82.	1.3	559
9	Discrete Boltzmann equation model for nonideal gases. Physical Review E, 1998, 57, R13-R16.	2.1	495
10	Extending the Range of Rate Constants Available from BIACORE: Interpreting Mass Transport-Influenced Binding Data. Biophysical Journal, 1998, 75, 583-594.	0.5	389
11	Discretization of the Velocity Space in the Solution of the Boltzmann Equation. Physical Review Letters, 1998, 80, 65-68.	7.8	351
12	Some Progress in Lattice Boltzmann Method. Part I. Nonuniform Mesh Grids. Journal of Computational Physics, 1996, 129, 357-363.	3.8	310
13	Lattice Boltzmann Method on Curvilinear Coordinates System: Flow around a Circular Cylinder. Journal of Computational Physics, 1997, 134, 306-315.	3.8	306
14	Lattice Boltzmann simulation of chemical dissolution in porous media. Physical Review E, 2002, 65, 036318.	2.1	214
15	On the three-dimensional Rayleigh–Taylor instability. Physics of Fluids, 1999, 11, 1143-1152.	4.0	177
16	Lattice Boltzmann method on a curvilinear coordinate system: Vortex shedding behind a circular cylinder. Physical Review E, 1997, 56, 434-440.	2.1	102
17	The influence of transport on the kinetics of binding to surface receptors: application to cells and BIAcore. Journal of Molecular Recognition, 1999, 12, 293-299.	2.1	92
18	Comparison of the Lattice Boltzmann Method and the Artificial Compressibility Method for Navier–Stokes Equations. Journal of Computational Physics, 2002, 179, 439-451.	3.8	91

#	Article	IF	Citations
19	On the Mechanics of the First Cleavage Division of the Sea Urchin Egg. Experimental Cell Research, 1997, 233, 252-273.	2.6	90
20	Simulation of Combustion Field with Lattice Boltzmann Method. Journal of Statistical Physics, 2002, 107, 367-383.	1.2	85
21	Interface and surface tension in incompressible lattice Boltzmann multiphase model. Computer Physics Communications, 2000, 129, 121-130.	7.5	79
22	Lattice Boltzmann method and gas-kinetic BGK scheme in the low-Mach number viscous flow simulations. Journal of Computational Physics, 2003, 190, 100-117.	3.8	76
23	Lattice Boltzmann Simulation of Diffusion-Convection Systems with Surface Chemical Reaction. Molecular Simulation, 2000, 25, 145-156.	2.0	65
24	Surface tension effects on two-dimensional two-phase Kelvinâ€"Helmholtz instabilities. Advances in Water Resources, 2001, 24, 461-478.	3.8	60
25	Some progress in the lattice Boltzmann method: Reynolds number enhancement in simulations. Physica A: Statistical Mechanics and Its Applications, 1997, 239, 276-285.	2.6	53
26	Unsteady Entrance Flow Development in a Straight Tube. Journal of Biomechanical Engineering, 1994, 116, 355-360.	1.3	51
27	Hydrodynamics of thermal granular convection. Physical Review E, 2002, 65, 030301.	2.1	39
28	Error Analysis for the Interpolation-Supplemented Lattice-Boltzmann Equation Scheme. International Journal of Modern Physics C, 1997, 08, 737-745.	1.7	23
29	Derivation of the macroscopic continuum equations for multiphase flow. Physical Review E, 1999, 59, 1253-1255.	2.1	14
30	Combustion Simulation Using the Lattice Boltzmann Method. JSME International Journal Series B, 2004, 47, 403-409.	0.3	13
31	A Theoretical and Experimental Study of Competition Between Solution and Surface Receptors for Ligand in a Biacore Flow Cell. Bulletin of Mathematical Biology, 2006, 68, 1125-1150.	1.9	11
32	Numerical Simulation of Oil-Droplet Cleavage by Surfactant. Journal of Biomechanical Engineering, 1996, 118, 201-209.	1.3	9
33	Impression creep of a viscous fluid. Journal of Applied Physics, 1997, 81, 7751-7756.	2.5	4