

Taehun Lee

List of Publications by Year in descending order

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51
papers

3,166
citations

218677

26
h-index

189892

50
g-index

55
all docs

55
docs citations

55
times ranked

1742
citing authors

#	ARTICLE	IF	CITATIONS
1	A stable discretization of the lattice Boltzmann equation for simulation of incompressible two-phase flows at high density ratio. <i>Journal of Computational Physics</i> , 2005, 206, 16-47.	3.8	555
2	Lattice Boltzmann simulations of micron-scale drop impact on dry surfaces. <i>Journal of Computational Physics</i> , 2010, 229, 8045-8063.	3.8	324
3	Eliminating parasitic currents in the lattice Boltzmann equation method for nonideal gases. <i>Physical Review E</i> , 2006, 74, 046709.	2.1	202
4	Single bubble rising dynamics for moderate Reynolds number using Lattice Boltzmann Method. <i>Computers and Fluids</i> , 2010, 39, 1191-1207.	2.5	152
5	Conservative phase-field lattice Boltzmann model for interface tracking equation. <i>Physical Review E</i> , 2015, 91, 063309.	2.1	151
6	A Characteristic Galerkin Method for Discrete Boltzmann Equation. <i>Journal of Computational Physics</i> , 2001, 171, 336-356.	3.8	136
7	Effects of incompressibility on the elimination of parasitic currents in the lattice Boltzmann equation method for binary fluids. <i>Computers and Mathematics With Applications</i> , 2009, 58, 987-994.	2.7	117
8	A mass-conserving lattice Boltzmann method with dynamic grid refinement for immiscible two-phase flows. <i>Journal of Computational Physics</i> , 2016, 315, 434-457.	3.8	116
9	An Eulerian description of the streaming process in the lattice Boltzmann equation. <i>Journal of Computational Physics</i> , 2003, 185, 445-471.	3.8	113
10	A review of spurious currents in the lattice Boltzmann method for multiphase flows. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 3857-3863.	1.5	94
11	Rarefaction and compressibility effects of the lattice-Boltzmann-equation method in a gas microchannel. <i>Physical Review E</i> , 2005, 71, 046706.	2.1	90
12	Coalescence-induced jumping of droplet: Inertia and viscosity effects. <i>Physics of Fluids</i> , 2015, 27, .	4.0	80
13	A level set characteristic Galerkin finite element method for free surface flows. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 49, 521-547.	1.6	78
14	Finite-difference lattice Boltzmann method with a block-structured adaptive-mesh-refinement technique. <i>Physical Review E</i> , 2014, 89, 033310.	2.1	74
15	Multiple-relaxation-time lattice Boltzmann method for immiscible fluids at high Reynolds numbers. <i>Physical Review E</i> , 2013, 87, 023304.	2.1	71
16	A spectral-element discontinuous Galerkin lattice Boltzmann method for nearly incompressible flows. <i>Journal of Computational Physics</i> , 2011, 230, 245-259.	3.8	66
17	Lattice Boltzmann simulations of forced wetting transitions of drops on superhydrophobic surfaces. <i>Journal of Computational Physics</i> , 2013, 250, 601-615.	3.8	62
18	Pressure evolution lattice-Boltzmann-equation method for two-phase flow with phase change. <i>Physical Review E</i> , 2003, 67, 056703.	2.1	53

#	ARTICLE	IF	CITATIONS
19	Numerics of the lattice boltzmann method on nonuniform grids: Standard LBM and finite-difference LBM. <i>Computers and Fluids</i> , 2015, 107, 205-213.	2.5	49
20	Interaction of fluid interfaces with immersed solid particles using the lattice Boltzmann method for liquid-gas particle systems. <i>Journal of Computational Physics</i> , 2015, 283, 453-477.	3.8	44
21	A lattice Boltzmann algorithm for calculation of the laminar jet diffusion flame. <i>Journal of Computational Physics</i> , 2006, 215, 133-152.	3.8	43
22	Wall boundary conditions in the lattice Boltzmann equation method for nonideal gases. <i>Physical Review E</i> , 2008, 78, 017702.	2.1	43
23	Multiscale liquid drop impact on wettable and textured surfaces. <i>Physics of Fluids</i> , 2014, 26, .	4.0	40
24	Shrinkage of bubbles and drops in the lattice Boltzmann equation method for nonideal gases. <i>Physical Review E</i> , 2014, 89, 033302.	2.1	33
25	Effects of initial conditions on the simulation of inertial coalescence of two drops. <i>Computers and Mathematics With Applications</i> , 2014, 67, 282-289.	2.7	30
26	WALL FREE ENERGY BASED POLYNOMIAL BOUNDARY CONDITIONS FOR NON-IDEAL GAS LATTICE BOLTZMANN EQUATION. <i>International Journal of Modern Physics C</i> , 2009, 20, 1749-1768.	1.7	27
27	Numerical simulation of single bubble rising in vertical and inclined square channel using lattice Boltzmann method. <i>Chemical Engineering Science</i> , 2011, 66, 935-952.	3.8	25
28	Effects of Inertia and Viscosity on Single Droplet Deformation in Confined Shear Flow. <i>Communications in Computational Physics</i> , 2013, 13, 706-724.	1.7	24
29	Spatial and temporal scaling of unequal microbubble coalescence. <i>AIChE Journal</i> , 2017, 63, 1441-1450.	3.6	24
30	Finite element lattice Boltzmann simulations of free surface flow in a concentric cylinder. <i>Computers and Mathematics With Applications</i> , 2013, 65, 230-238.	2.7	20
31	Lattice Boltzmann simulations of particle-laden liquid bridges: Effects of volume fraction and wettability. <i>International Journal of Multiphase Flow</i> , 2015, 76, 32-46.	3.4	20
32	Lattice Boltzmann simulations of bubble formation in a microfluidic T-junction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 2405-2413.	3.4	19
33	Numerical investigations on the vortex-induced vibration of moving square cylinder by using incompressible lattice Boltzmann method. <i>Computers and Fluids</i> , 2016, 124, 270-277.	2.5	18
34	Phase-field lattice Boltzmann modeling of boiling using a sharp-interface energy solver. <i>Physical Review E</i> , 2017, 96, 013306.	2.1	16
35	Spectral-element discontinuous Galerkin lattice Boltzmann simulation of flow past two cylinders in tandem with an exponential time integrator. <i>Computers and Mathematics With Applications</i> , 2013, 65, 239-251.	2.7	14
36	Turbulent flow characteristics in an annulus under air bubble injection and subcooled flow boiling conditions. <i>Nuclear Engineering and Design</i> , 2014, 268, 203-214.	1.7	14

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37	Computational study of microparticle effect on self-propelled jumping of droplets from superhydrophobic substrates. <i>International Journal of Multiphase Flow</i> , 2017, 95, 220-234.	3.4	14
38	Large-eddy simulation of air flow around a wall-mounted circular cylinder and a tripod tower. <i>Journal of Turbulence</i> , 2007, 8, N29.	1.4	13
39	A spectral-element discontinuous Galerkin lattice Boltzmann method for simulating natural convection heat transfer in a horizontal concentric annulus. <i>Computers and Fluids</i> , 2014, 95, 197-209.	2.5	13
40	Coalescence-induced jumping of immersed and suspended droplets on microstructured substrates. <i>European Journal of Computational Mechanics</i> , 2017, 26, 205-223.	0.6	13
41	A new splitting scheme to the discrete Boltzmann equation for non-ideal gases on non-uniform meshes. <i>Journal of Computational Physics</i> , 2016, 327, 799-809.	3.8	12
42	Dynamics of viscous coalescing droplets in a saturated vapor phase. <i>Physics of Fluids</i> , 2015, 27, .	4.0	11
43	Effect of interfacial mass transport on inertial spreading of liquid droplets. <i>Physics of Fluids</i> , 2020, 32, .	4.0	11
44	A spectral-element discontinuous Galerkin thermal lattice Boltzmann method for conjugate heat transfer applications. <i>International Journal for Numerical Methods in Fluids</i> , 2016, 82, 932-952.	1.6	10
45	Airflows generated by an impacting drop. <i>Soft Matter</i> , 2016, 12, 3013-3020.	2.7	7
46	Eulerian description of high-order bounce-back scheme for lattice Boltzmann equation with curved boundary. <i>European Physical Journal: Special Topics</i> , 2009, 171, 3-8.	2.6	6
47	Simulation of a bubble rising at high Reynolds number with mass-conserving finite element lattice Boltzmann method. <i>Computers and Fluids</i> , 2021, 220, 104883.	2.5	6
48	Enhanced wickability of single-columnar, non-uniform pore-size wick using Lattice Boltzmann Method. <i>Computers and Fluids</i> , 2022, 238, 105376.	2.5	6
49	Numerical and Experimental Analysis of Single Phase Jet Interactions. , 2016, , .		3
50	Diffuse bounce back condition for lattice Boltzmann method. <i>Computers and Fluids</i> , 2021, 220, 104884.	2.5	2
51	Comment on "Viscous coalescence of droplets: A lattice Boltzmann study" [<i>Phys. Fluids</i> 25, 052101 (2013)]. <i>Physics of Fluids</i> , 2016, 28, 079101.	4.0	1