

Kannan N Premnath

List of Publications by Year in descending order

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papers

946
citations

623734

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501196

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docs citations

28
times ranked

574
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional multi-relaxation time (MRT) lattice-Boltzmann models for multiphase flow. Journal of Computational Physics, 2007, 224, 539-559.	3.8	212
2	Lattice Boltzmann model for axisymmetric multiphase flows. Physical Review E, 2005, 71, 056706.	2.1	94
3	Incorporating forcing terms in cascaded lattice Boltzmann approach by method of central moments. Physical Review E, 2009, 80, 036702.	2.1	93
4	Dynamic subgrid scale modeling of turbulent flows using lattice-Boltzmann method. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 2640-2658.	2.6	77
5	Generalized lattice Boltzmann equation with forcing term for computation of wall-bounded turbulent flows. Physical Review E, 2009, 79, 026703.	2.1	76
6	On the Three-Dimensional Central Moment Lattice Boltzmann Method. Journal of Statistical Physics, 2011, 143, 747-794.	1.2	67
7	Numerical study of the properties of the central moment lattice Boltzmann method. International Journal for Numerical Methods in Fluids, 2016, 82, 59-90.	1.6	58
8	Multigrid lattice Boltzmann method for accelerated solution of elliptic equations. Journal of Computational Physics, 2014, 265, 172-194.	3.8	32
9	Steady state convergence acceleration of the generalized lattice Boltzmann equation with forcing term through preconditioning. Journal of Computational Physics, 2009, 228, 746-769.	3.8	25
10	Central moments-based cascaded lattice Boltzmann method for thermal convective flows in three-dimensions. International Journal of Heat and Mass Transfer, 2018, 120, 838-850.	4.8	23
11	Cascaded lattice Boltzmann method based on central moments for axisymmetric thermal flows including swirling effects. International Journal of Heat and Mass Transfer, 2019, 128, 999-1016.	4.8	20
12	LATTICE BOLTZMANN SIMULATIONS OF DROP-DROP INTERACTIONS IN TWO-PHASE FLOWS. International Journal of Modern Physics C, 2005, 16, 25-44.	1.7	18
13	Surfactant effects on interfacial flow and thermal transport processes during phase change in film boiling. Physics of Fluids, 2018, 30, .	4.0	18
14	Galilean-invariant preconditioned central-moment lattice Boltzmann method without cubic velocity errors for efficient steady flow simulations. Physical Review E, 2018, 97, 053303.	2.1	18
15	Central moment lattice Boltzmann method using a pressure-based formulation for multiphase flows at high density ratios and including effects of surface tension and Marangoni stresses. Journal of Computational Physics, 2021, 425, 109893.	3.8	14
16	Symmetrized operator split schemes for force and source modeling in cascaded lattice Boltzmann methods for flow and scalar transport. Physical Review E, 2018, 97, 063303.	2.1	13
17	Improving the low Mach number steady state convergence of the cascaded lattice Boltzmann method by preconditioning. Computers and Mathematics With Applications, 2019, 78, 1115-1130.	2.7	12
18	Numerical investigation of the cascaded central moment lattice Boltzmann method for non-Newtonian fluid flows. Journal of Non-Newtonian Fluid Mechanics, 2019, 274, 104188.	2.4	11

#	ARTICLE	IF	CITATIONS
19	Investigation of Time-Dependent Microscale Close Contact Melting. International Journal of Heat and Mass Transfer, 2021, 166, 120742.	4.8	10
20	Effects of the magnetic field on direct contact melting transport processes during rotation. Applied Mathematical Modelling, 2018, 61, 421-442.	4.2	9
21	A cascaded lattice Boltzmann model for thermal convective flows with local heat sources. International Journal of Heat and Fluid Flow, 2018, 70, 279-298.	2.4	9
22	Cascaded lattice Boltzmann modeling and simulations of three-dimensional non-Newtonian fluid flows. Computer Physics Communications, 2021, 262, 107858.	7.5	8
23	Three-Dimensional Central Moment Lattice Boltzmann Method on a Cuboid Lattice for Anisotropic and Inhomogeneous Flows. Fluids, 2021, 6, 326.	1.7	8
24	Central moment lattice Boltzmann method on a rectangular lattice. Physics of Fluids, 2021, 33, 057110.	4.0	7
25	Effect of magnetic field on the natural convection from a vertical melting substrate. International Journal of Thermal Sciences, 2012, 53, 89-99.	4.9	5
26	Local vorticity computation approach in double distribution functions based lattice Boltzmann methods for flow and scalar transport. International Journal of Heat and Fluid Flow, 2020, 83, 108577.	2.4	4
27	Inertial Frame Independent Forcing for Discrete Velocity Boltzmann Equation: Implications for Filtered Turbulence Simulation. Communications in Computational Physics, 2012, 12, 732-766.	1.7	3
28	Thermocapillary convection due to imposed interfacial heating in the presence of magnetic field. Journal of Engineering Mathematics, 2018, 108, 37-52.	1.2	2