Chengwen Zhong

List of Publications by Year
in descending order

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		393982	433756
79	1,358	19	31
papers	citations	h-index	g-index

82	82	82	636
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Research on the human heat transfer model of Chinese pilots and experimental verification of model correctness. Neural Computing and Applications, 2022, 34, 16441-16461.	3.2	2
2	Investigation of nonlinear squeeze-film damping involving rarefied gas effect in micro-electro-mechanical systems. Computers and Mathematics With Applications, 2022, 114, 188-209.	1.4	13
3	Conservative multilevel discrete unified gas kinetic scheme for modeling multiphase flows with large density ratios. Physics of Fluids, 2022, 34, .	1.6	11
4	Unified X-space parallelization algorithm for conserved discrete unified gas kinetic scheme. Computer Physics Communications, 2022, , 108410.	3.0	7
5	Spatio-temporal error coupling and competition in meso-flux construction of discrete unified gas-kinetic scheme. Computers and Fluids, 2022, 244, 105537.	1.3	4
6	Progress of the unified wave-particle methods for non-equilibrium flows from continuum to rarefied regimes. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	3
7	A novel multiscale discrete velocity method for model kinetic equations. Communications in Nonlinear Science and Numerical Simulation, 2021, 92, 105473.	1.7	7
8	A multi-prediction implicit scheme for steady state solutions of gas flow in all flow regimes. Communications in Nonlinear Science and Numerical Simulation, 2021, 92, 105470.	1.7	20
9	A simplified discrete unified gasâ€“kinetic scheme for compressible flow. Physics of Fluids, 2021, 33, .	1.6	22
10	An implicit kinetic inviscid flux for predicting continuum flows in all speed regimes. Physics of Fluids, 2021, 33, 046102.	1.6	4
11	GKS and UGKS for High-Speed Flows. Aerospace, 2021, 8, 141.	1.1	6
12	A direct relaxation process for particle methods in gas-kinetic theory. Physics of Fluids, 2021, 33, 076109.	1.6	7
13	Numerical Transport Process of Splitting Kinetic Schemes in the Navierâ€“Stokesâ€“Fourier Limit. International Journal of Computational Fluid Dynamics, 2021, 35, 653-665.	0.5	2
14	A conservative implicit scheme for steady state solutions of diatomic gas flow in all flow regimes. Computer Physics Communications, 2020, 247, 106972.	3.0	25
15	A simplified finite volume lattice Boltzmann method for simulations of fluid flows from laminar to turbulent regime, Part II: Extension towards turbulent flow simulation. Computers and Mathematics With Applications, 2020, 79, 2133-2152.	1.4	10
16	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
17	Ray effect in rarefied flow simulation. Journal of Computational Physics, 2020, 422, 109751.	1.9	7
18	Simplified unified wave-particle method with quantified model-competition mechanism for numerical calculation of multiscale flows. Physical Review E, 2020, 102, 013304.	0.8	17

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19	Multiscale kinetic inviscid flux extracted from a gas-kinetic scheme for simulating incompressible and compressible flows. Physical Review E, 2020, 102, 033310.	0.8	8
20	A simplified discrete unified gas kinetic scheme for incompressible flow. Physics of Fluids, 2020, 32, .	1.6	22
21	High-order kinetic flow solver based on the flux reconstruction framework. Physical Review E, 2020, 102, 043306.	0.8	4
22	Large-eddy simulation of wall-bounded turbulent flow with high-order discrete unified gas-kinetic scheme. Advances in Aerodynamics, 2020, 2, .	1.3	13
23	Analysis of heat and mass transfer mechanism during thermal energy storage and temperature regulation. Thermal Science, 2020, 24, 3185-3193.	0.5	0
24	Conserved discrete unified gas-kinetic scheme with unstructured discrete velocity space. Physical Review E, 2019, 100, 043305.	0.8	38
25	Unified gas-kinetic wave-particle methods. II. Multiscale simulation on unstructured mesh. Physics of Fluids, 2019, 31, .	1.6	49
26	An extended gas-kinetic scheme for shock structure calculations. Journal of Computational Physics, 2019, 390, 1-24.	1.9	14
27	An implicit unified gas-kinetic scheme for unsteady flow in all Knudsen regimes. Journal of Computational Physics, 2019, 386, 190-217.	1.9	38
28	A third order gas-kinetic scheme for unstructured grid. Computers and Mathematics With Applications, 2019, 78, 92-109.	1.4	4
29	Phase-field method based on discrete unified gas-kinetic scheme for large-density-ratio two-phase flows. Physical Review E, 2019, 99, 043302.	0.8	38
30	Arbitrary Lagrangian-Eulerian-type discrete unified gas kinetic scheme for low-speed continuum and rarefied flow simulations with moving boundaries. Physical Review E, 2019, 100, 063310.	0.8	22
31	Conservative discrete-velocity method for the ellipsoidal Fokker-Planck equation in gas-kinetic theory. Physical Review E, 2019, 100, 033310.	0.8	8
32	A two-stage fourth-order gas-kinetic scheme on unstructured hybrid mesh. Computer Physics Communications, 2019, 235, 75-87.	3.0	6
33	A gas-kinetic scheme coupled with SST model for turbulent flows. Computers and Mathematics With Applications, 2019, 78, 1227-1242.	1.4	26
34	An Implicit Discrete Unified Gas-Kinetic Scheme for Simulations of Steady Flow in All Flow Regimes. Communications in Computational Physics, 2019, 25, .	0.7	17
35	An implicit gas-kinetic scheme for turbulent flow on unstructured hybrid mesh. Computers and Mathematics With Applications, 2018, 75, 3825-3848.	1.4	6
36	An immersed-boundary method for compressible viscous flows and its application in the gas-kinetic BGK scheme. Applied Mathematical Modelling, 2018, 55, 417-446.	2.2	12

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37	Flexural Vibration Analysis of Nonuniform Double-Beam System with General Boundary and Coupling Conditions. Shock and Vibration, 2018, 2018, 1-8.	0.3	6
38	A Unified Gas Kinetic Scheme for Transport and Collision Effects in Plasma. Applied Sciences (Switzerland), 2018, 8, 746.	1.3	8
39	Initial virtual flight test for a dynamically similar aircraft model with control augmentation system. Chinese Journal of Aeronautics, 2017, 30, 602-610.	2.8	26
40	Unified gas-kinetic scheme with multigrid convergence for rarefied flow study. Physics of Fluids, 2017, 29, .	1.6	58
41	An adaptive-gridding lattice Boltzmann method with linked-list data structure for two-dimensional viscous flows. Progress in Computational Fluid Dynamics, 2017, 17, 267.	0.1	5
42	Implementation of dual time-stepping strategy of the gas-kinetic scheme for unsteady flow simulations. Physical Review E, 2017, 95, 053307.	0.8	18
43	Experiences of Performance Optimization for Large Eddy Simulation on Intel MIC Platforms. Communications in Computer and Information Science, 2017, , 610-625.	0.4	0
44	Implicit unified gas-kinetic scheme for steady state solutions in all flow regimes. Journal of Computational Physics, 2016, 315, 16-38.	1.9	92
45	Aeroacoustic Simulations Using Compressible Lattice Boltzmann Method. Advances in Applied Mathematics and Mechanics, 2016, 8, 795-809.	0.7	4
46	LES-based filter-matrix lattice Boltzmann model for simulating fully developed turbulent channel flow. International Journal of Computational Fluid Dynamics, 2016, 30, 543-553.	0.5	5
47	A gasâ€kinetic scheme for the simulation of turbulent flows on unstructured meshes. International Journal for Numerical Methods in Fluids, 2016, 82, 748-769.	0.9	17
48	An immersed-boundary method based on the gas kinetic BGK scheme for incompressible viscous flow. Journal of Computational Physics, 2015, 296, 184-208.	1.9	46
49	A multiple-relaxation-time lattice Boltzmann method for high-speed compressible flows. Chinese Physics B, 2015, 24, 050501.	0.7	5
50	Unified gas-kinetic scheme for microchannel and nanochannel flows. Computers and Mathematics With Applications, 2015, 69, 41-57.	1.4	8
51	A lattice Boltzmann model for simulation of compressible flows. International Journal for Numerical Methods in Fluids, 2015, 77, 334-357.	0.9	21
52	A hybrid adaptive-gridding immersed-boundary lattice Boltzmann method for viscous flow simulations. Applied Mathematics and Computation, 2015, 267, 529-553.	1.4	12
53	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
54	Investigation of the kinetic model equations. Physical Review E, 2014, 89, 033306.	0.8	15

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55	A parallel lattice Boltzmann method for large eddy simulation on multiple GPUs. Computing (Vienna/New York), 2014, 96, 479-501.	3.2	6
56	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
57	Unified gas-kinetic scheme for diatomic molecular simulations in all flow regimes. Journal of Computational Physics, 2014, 259, 96-113.	1.9	77
58	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
59	Filter-matrix lattice Boltzmann model for microchannel gas flows. Physical Review E, 2013, 88, 053311.	0.8	14
60	Filter-matrix lattice Boltzmann simulation of lid-driven deep-cavity flows, Part I â€" Steady flows. Computers and Mathematics With Applications, 2013, 65, 1863-1882.	1.4	6
61	MRT-LBM Simulation of Four-lid-driven Cavity Flow Bifurcation. Procedia Engineering, 2013, 61, 100-107.	1.2	3
62	Filter-matrix lattice Boltzmann simulation of lid-driven deep-cavity flows, Part II â€" Flow bifurcation. Computers and Mathematics With Applications, 2013, 65, 1883-1893.	1.4	5
63	Filter-matrix lattice Boltzmann model for incompressible thermal flows. Physical Review E, 2012, 85, 046703.	0.8	17
64	Modified unified kinetic scheme for all flow regimes. Physical Review E, 2012, 85, 066705.	0.8	11
65	Implementation and Analysis of AES Encryption on GPU. , 2012, , .		67
66	Implementation of a Lattice Boltzmann Method for Large Eddy Simulation on Multiple GPUs. , 2012, , .		3
67	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
68	Lattice Boltzmann simulation of cavitating bubble growth with large density ratio. Computers and Mathematics With Applications, 2011, 61, 3577-3584.	1.4	64
69	Physical Body Impact After High Altitude Bail-out. Chinese Journal of Aeronautics, 2011, 24, 145-149.	2.8	2
70	Numerical simulation of compressible turbulent flow via improved gasâ€kinetic BGK scheme. International Journal for Numerical Methods in Fluids, 2011, 67, 1833-1847.	0.9	16
71	Application of Lattice Boltzmann Method to Simulation of Compressible Turbulent Flow. Communications in Computational Physics, 2010, 8, 1208-1223.	0.7	18
72	Simulation of natural convection under high magnetic field by means of the thermal lattice Boltzmann method. Chinese Physics B, 2009, 18, 4083-4093.	0.7	24

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73	Multiple-GPUs Algorithm for Lattice Boltzmann Method. , 2008, , .		0
74	Research and Implement of Classification Rule Mining Algorithm Based on Attribute Reduction. , 2007, , .		0
75	Study of Web Information Extraction and Classification Method. , 2007, , .		5
76	Damping of natural convection in the aqueous protein solutions by the application of high magnetic fields. Journal of Crystal Growth, 2002, 237-239, 312-316.	0.7	11
77	Control of vertical acceleration (effective gravity) between normal and microgravity. AICHE Journal, 2001, 47, 2640-2643.	1.8	23
78	Effect of a high magnetic field on the viscosity of an aqueous solution of protein. Journal of Crystal Growth, 2001, 226, 327-332.	0.7	31
79	Effect of a high magnetic field on protein crystal growthâ€"magnetic field induced order in aqueous protein solutions. Journal of Crystal Growth, 2001, 233, 561-566.	0.7	15