Victor Sofonea

List of Publications by Year in descending order

51 papers	1,143 citations	394421 19 h-index	395702 33 g-index
51 all docs	51 docs citations	51 times ranked	550 citing authors

#	Article	IF	Citations
1	Two-dimensional off-lattice Boltzmann model for van der Waals fluids with variable temperature. Computers and Mathematics With Applications, 2020, 79, 111-140.	2.7	8
2	Comparison of the Shakhov and ellipsoidal models for the Boltzmann equation and DSMC for ab initio-based particle interactions. Computers and Fluids, 2020, 211, 104637.	2.5	13
3	Comparison between isothermal collision-streaming and finite-difference lattice Boltzmann models. International Journal of Modern Physics C, 2019, 30, 1941005.	1.7	6
4	Lattice Boltzmann approach to rarefied gas flows using half-range Gauss-Hermite quadratures: Comparison to DSMC results based on ab initio potentials. AIP Conference Proceedings, 2019, , .	0.4	4
5	Quadrature-Based Lattice Boltzmann Models for Rarefied Gas Flow. Soft and Biological Matter, 2019, , 271-299.	0.3	5
6	Corner-transport-upwind lattice Boltzmann model for bubble cavitation. Physical Review E, 2018, 97, 023309.	2.1	17
7	Half-range lattice Boltzmann models for the simulation of Couette flow using the Shakhov collision term. Physical Review E, 2018, 98, .	2.1	12
8	Lattice Boltzmann simulation of droplet formation in T-junction geometries. AIP Conference Proceedings, 2017, , .	0.4	3
9	Lattice Boltzmann models based on half-range Gaussâ€“Hermite quadratures. Journal of Computational Physics, 2016, 316, 760-788.	3.8	31
10	Application of mixed quadrature lattice Boltzmann models for the simulation of Poiseuille flow at non-negligible values of the Knudsen number. Journal of Computational Science, 2016, 17, 403-417.	2.9	24
11	Lattice Boltzmann model for predicting the deposition of inertial particles transported by a turbulent flow. International Journal of Multiphase Flow, 2015, 76, 187-197.	3.4	10
12	Simulation of liquidâ€“vapour phase separation on GPUs using Lattice Boltzmann models with off-lattice velocity sets. Comptes Rendus - Mecanique, 2015, 343, 580-588.	2.1	10
13	APPLICATION OF LATTICE BOLTZMANN MODELS BASED ON LAGUERRE QUADRATURES TO FORCE-DRIVEN FLOWS OF RAREFIED GASES. Interfacial Phenomena and Heat Transfer, 2014, 2, 235-251.	0.8	5
14	Lattice Boltzmann models based on Gauss quadratures. International Journal of Modern Physics C, 2014, 25, 1441011.	1.7	7
15	Implementation of diffuse-reflection boundary conditions using lattice Boltzmann models based on half-space Gauss-Laguerre quadratures. Physical Review E, 2014, 89, 041301.	2.1	22
16	GAUSS QUADRATURES â€“ THE KEYSTONE OF LATTICE BOLTZMANN MODELS. International Journal of Modern Physics C, 2014, 25, 1340016.	1.7	13
17	High-order thermal lattice Boltzmann models derived by means of Gauss quadrature in the spherical coordinate system. Physical Review E, 2012, 86, 016708.	2.1	32
18	Thermal Lattice Boltzmann models derived by Gauss quadrature using the spherical coordinate system. Journal of Physics: Conference Series, 2012, 362, 012043.	0.4	1

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19	Lattice Boltzmann simulations of the time evolution of living multicellular systems. Biorheology, 2011, 48, 185-197.	0.4	7
20	A Lattice Boltzmann Study of Phase Separation in Liquid-vapor Systems with Gravity. Communications in Computational Physics, 2010, 7, 350-361.	1.7	20
21	Implementation of diffuse reflection boundary conditions in a thermal lattice Boltzmann model with flux limiters. Journal of Computational Physics, 2009, 228, 6107-6118.	3.8	24
22	A lattice Boltzmann method for thermal nonideal fluids. European Physical Journal: Special Topics, 2009, 171, 181-187.	2.6	8
23	DISCONTINUOUS GALERKIN SCHEMES FOR ISOTHERMAL LATTICE BOLTZMAN MODELS IN ONE DIMENSION. International Journal of Modern Physics C, 2008, 19, 677-688.	1.7	2
24	A PARALLEL THERMAL LATTICE BOLTZMANN MODEL WITH FLUX LIMITERS FOR MICROSCALE FLOW. International Journal of Modern Physics C, 2008, 19, 1847-1861.	1.7	5
25	Lattice Boltzmann simulation of thermal nonideal fluids. Physical Review E, 2007, 76, 036703.	2.1	68
26	Finite-difference lattice Boltzmann model for liquidâ€“vapor systems. Mathematics and Computers in Simulation, 2006, 72, 113-116.	4.4	20
27	Finite-difference lattice Boltzmann approach to pressure-driven microchannel flow with variable temperature. Europhysics Letters, 2006, 76, 829-835.	2.0	12
28	Lattice Boltzmann approach to thermal transpiration. Physical Review E, 2006, 74, 056705.	2.1	15
29	Boundary conditions for the upwind finite difference Lattice Boltzmann model: Evidence of slip velocity in micro-channel flow. Journal of Computational Physics, 2005, 207, 639-659.	3.8	78
30	Lattice Boltzmann method for phase-separating liquid-vapor systems. AIP Conference Proceedings, 2005, , .	0.4	0
31	Diffuse-reflection boundary conditions for a thermal lattice Boltzmann model in two dimensions: Evidence of temperature jump and slip velocity in microchannels. Physical Review E, 2005, 71, 066709.	2.1	63
32	DIFFUSIVITY OF TWO-COMPONENT ISOTHERMAL FINITE DIFFERENCE LATTICE BOLTZMANN MODELS. International Journal of Modern Physics C, 2005, 16, 1075-1090.	1.7	18
33	Finite-difference lattice Boltzmann model with flux limiters for liquid-vapor systems. Physical Review E, 2004, 70, 046702.	2.1	91
34	Two component lattice Boltzmann model with flux limiters. Open Physics, 2004, 2, .	1.7	17
35	Viscosity of finite difference lattice Boltzmann models. Journal of Computational Physics, 2003, 184, 422-434.	3.8	103
36	REDUCTION OF SPURIOUS VELOCITY IN FINITE DIFFERENCE LATTICE BOLTZMANN MODELS FOR LIQUIDâ€“VAPOR SYSTEMS. International Journal of Modern Physics C, 2003, 14, 1251-1266.	1.7	53

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37	Lattice Boltzmann model for the simulation of interfacial phenomena in magnetic fluids. Journal of Magnetism and Magnetic Materials, 2002, 252, 144-146.	2.3	13
38	Lattice Boltzmann model for magnetic fluid interfaces. European Physical Journal B, 2001, 20, 141-149.	1.5	19
39	BGK models for diffusion in isothermal binary fluid systems. Physica A: Statistical Mechanics and Its Applications, 2001, 299, 494-520.	2.6	53
40	Morphological characterization of spinodal decomposition kinetics. European Physical Journal B, 1999, 8, 99-112.	1.5	69
41	Agglomerate formation in moderately concentrated ferrofluids from static magneto-optical measurements. Journal of Magnetism and Magnetic Materials, 1999, 191, 241-248.	2.3	40
42	Morphology of cluster formation in magnetic fluids. Journal of Magnetism and Magnetic Materials, 1999, 201, 238-241.	2.3	5
43	Concentration dependence of magnetisation and magneto-optical effects in a ferrofluid with double layer stabilized particles. Journal of Magnetism and Magnetic Materials, 1999, 201, 174-177.	2.3	19
44	Morphology of spinodal decomposition. Physical Review E, 1997, 56, R3761-R3764.	2.1	60
45	TWO-PHASE FLUID SUBJECTED TO TERRESTRIAL OR SPACE CONDITIONS: A LATTICE BOLTZMANN STUDY. International Journal of Modern Physics C, 1996, 07, 695-704.	1.7	1
46	LATTICE BOLTZMANN APPROACH TO VISCOUS FLOWS BETWEEN PARALLEL PLATES. International Journal of Modern Physics C, 1995, 06, 345-358.	1.7	1
47	Lattice Boltzmann Approach to Collective-Particle Interactions in Magnetic Fluids. Europhysics Letters, 1994, 25, 385-390.	2.0	14
48	Magneto-Optical Effects Induced in a Magnetic-Fluid Layer by Thermally Released Supermassive Magnetic Monopoles. Europhysics Letters, 1993, 23, 609-614.	2.0	1
49	Theory of Optogalvanic Signals Originating from Metastable States in Hollow Cathode Neon Discharges. Contributions To Plasma Physics, 1990, 30, 215-222.	1.1	3
50	Void formation and distribution in shaped sapphire crystals. Journal of Crystal Growth, 1990, 104, 169-174.	1.5	17
51	A phenomenological approach to the optoacoustic effect in discharge plasmas. Optics Communications, 1986, 60, 302-305.	2.1	1