Irina Ginzburg

List of Publications by Year
in descending order

34	3,745	361045	377514
papers	citations	20	34
		h-index	g-index

34	34	34	1944
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiple–relaxation–time lattice Boltzmann models in three dimensions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 437-451.	1.6	1,494
2	Multireflection boundary conditions for lattice Boltzmann models. Physical Review E, 2003, 68, 066614.	0.8	418
3	Equilibrium-type and link-type lattice Boltzmann models for generic advection and anisotropic-dispersion equation. Advances in Water Resources, 2005, 28, 1171-1195.	1.7	367
4	Viscosity independent numerical errors for Lattice Boltzmann models: From recurrence equations to "magic" collision numbers. Computers and Mathematics With Applications, 2009, 58, 823-840.	1.4	163
5	Optimal Stability of Advection-Diffusion Lattice Boltzmann Models with Two Relaxation Times for Positive/Negative Equilibrium. Journal of Statistical Physics, 2010, 139, 1090-1143.	0.5	150
6	Generic boundary conditions for lattice Boltzmann models and their application to advection and anisotropic dispersion equations. Advances in Water Resources, 2005, 28, 1196-1216.	1.7	149
7	Lattice Boltzmann model for free-surface flow and its application to filling process in casting. Journal of Computational Physics, 2003, 185, 61-99.	1.9	110
8	Coarse- and fine-grid numerical behavior of MRT/TRT lattice-Boltzmann schemes in regular and random sphere packings. Journal of Computational Physics, 2015, 281, 708-742.	1.9	109
9	Truncation Errors, Exact And Heuristic Stability Analysis Of Two-Relaxation-Times Lattice Boltzmann Schemes For Anisotropic Advection-Diffusion Equation. Communications in Computational Physics, 2012, 11, 1439-1502.	0.7	84
10	Lattice Boltzmann modeling with discontinuous collision components: Hydrodynamic and Advection-Diffusion Equations. Journal of Statistical Physics, 2007, 126, 157-206.	0.5	74
11	Variably saturated flow described with the anisotropic Lattice Boltzmann methods. Computers and Fluids, 2006, 35, 831-848.	1.3	72
12	Consistent lattice Boltzmann schemes for the Brinkman model of porous flow and infinite Chapman-Enskog expansion. Physical Review E, 2008, 77, 066704.	0.8	63
13	A free-surface lattice Boltzmann method for modelling the filling of expanding cavities by Bingham fluids. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 453-466.	1.6	59
14	Analysis and improvement of Brinkman lattice Boltzmann schemes: Bulk, boundary, interface. Similarity and distinctness with finite elements in heterogeneous porous media. Physical Review E, 2015, 91, 023307.	0.8	49
15	Multiple anisotropic collisions for advection–diffusion Lattice Boltzmann schemes. Advances in Water Resources, 2013, 51, 381-404.	1.7	48
16	Lattice Boltzmann and analytical modeling of flow processes in anisotropic and heterogeneous stratified aquifers. Advances in Water Resources, 2007, 30, 2202-2234.	1.7	47
17	Taylor dispersion in heterogeneous porous media: Extended method of moments, theory, and modelling with two-relaxation-times lattice Boltzmann scheme. Physics of Fluids, 2014, 26, .	1.6	31
18	Comment on "An improved gray Lattice Boltzmann model for simulating fluid flow in multi-scale porous media" Intrinsic links between LBE Brinkman schemes. Advances in Water Resources, 2016, 88, 241-249.	1.7	27

#	Article	IF	Citations
19	Low- and high-order accurate boundary conditions: From Stokes to Darcy porous flow modeled with standard and improved Brinkman lattice Boltzmann schemes. Journal of Computational Physics, 2017, 335, 50-83.	1.9	27
20	Truncation effect on Taylor–Aris dispersion in lattice Boltzmann schemes: Accuracy towards stability. Journal of Computational Physics, 2015, 299, 974-1003.	1.9	26
21	Field-scale modeling of subsurface tile-drained soils using an equivalent-medium approach. Journal of Hydrology, 2007, 341, 105-115.	2.3	21
22	Prediction of the moments in advection-diffusion lattice Boltzmann method. II. Attenuation of the boundary layers via double-Λ bounce-back flux scheme. Physical Review E, 2017, 95, 013305.	0.8	21
23	Local boundary reflections in lattice Boltzmann schemes: Spurious boundary layers and their impact on the velocity, diffusion and dispersion. Comptes Rendus - Mecanique, 2015, 343, 518-532.	2.1	19
24	Prediction of the moments in advection-diffusion lattice Boltzmann method. I. Truncation dispersion, skewness, and kurtosis. Physical Review E, 2017, 95, 013304.	0.8	17
25	Stokes–Brinkman–Darcy Solutions of Bimodal Porous Flow Across Periodic Array of Permeable Cylindrical Inclusions: Cell Model, Lubrication Theory and LBM/FEM Numerical Simulations. Transport in Porous Media, 2016, 111, 795-825.	1.2	16
26	Steady-state two-relaxation-time lattice Boltzmann formulation for transport and flow, closed with the compact multi-reflection boundary and interface-conjugate schemes. Journal of Computational Science, 2021, 54, 101215.	1.5	13
27	The permeability and quality of velocity field in a square array of solid and permeable cylindrical obstacles with the TRT–LBM and FEM Brinkman schemes. Comptes Rendus - Mecanique, 2015, 343, 545-558.	2.1	12
28	Enhanced single-node lattice Boltzmann boundary condition for fluid flows. Physical Review E, 2021, 103, 053308.	0.8	11
29	Reviving the local second-order boundary approach within the two-relaxation-time lattice Boltzmann modelling. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190404.	1.6	10
30	Mass-balance and locality versus accuracy with the new boundary and interface-conjugate approaches in advection-diffusion lattice Boltzmann method. Physics of Fluids, 2021, 33, 057104.	1.6	10
31	Lattice Boltzmann approach to Richards' equation. Developments in Water Science, 2004, , 583-595.	0.1	8
32	Spurious interface and boundary behaviour beyond physical solutions in lattice Boltzmann schemes. Journal of Computational Physics, 2021, 431, 109986.	1.9	8
33	Determination of the diffusivity, dispersion, skewness and kurtosis in heterogeneous porous flow. Part I: Analytical solutions with the extended method of moments.. Advances in Water Resources, 2018, 115, 60-87.	1.7	6
34	Determination of the diffusivity, dispersion, skewness and kurtosis in heterogeneous porous flow. Part II: Lattice Boltzmann schemes with implicit interface. Advances in Water Resources, 2018, 118, 49-82.	1.7	6