

SÃ©bastien Leclaire

List of Publications by Year in descending order

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Version: 2024-02-01

28
papers

970
citations

623734

14
h-index

552781

26
g-index

28
all docs

28
docs citations

28
times ranked

685
citing authors

#	ARTICLE	IF	CITATIONS
1	Palabos: Parallel Lattice Boltzmann Solver. <i>Computers and Mathematics With Applications</i> , 2021, 81, 334-350.	2.7	193
2	Generalized three-dimensional lattice Boltzmann color-gradient method for immiscible two-phase pore-scale imbibition and drainage in porous media. <i>Physical Review E</i> , 2017, 95, 033306.	2.1	115
3	Numerical evaluation of two recoloring operators for an immiscible two-phase flow lattice Boltzmann model. <i>Applied Mathematical Modelling</i> , 2012, 36, 2237-2252.	4.2	106
4	Progress and investigation on lattice Boltzmann modeling of multiple immiscible fluids or components with variable density and viscosity ratios. <i>Journal of Computational Physics</i> , 2013, 246, 318-342.	3.8	97
5	Isotropic color gradient for simulating very high-density ratios with a two-phase flow lattice Boltzmann model. <i>Computers and Fluids</i> , 2011, 48, 98-112.	2.5	70
6	The mechanics of shallow magma reservoir outgassing. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2887-2905.	2.5	69
7	Enhanced equilibrium distribution functions for simulating immiscible multiphase flows with variable density ratios in a class of lattice Boltzmann models. <i>International Journal of Multiphase Flow</i> , 2013, 57, 159-168.	3.4	49
8	Unsteady immiscible multiphase flow validation of a multiple-relaxation-time lattice Boltzmann method. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 105501.	2.1	35
9	Modeling of static contact angles with curved boundaries using a multiphase lattice Boltzmann method with variable density and viscosity ratios. <i>International Journal for Numerical Methods in Fluids</i> , 2016, 82, 451-470.	1.6	35
10	A multiphase lattice Boltzmann method for simulating immiscible liquid-liquid interface dynamics. <i>Applied Mathematical Modelling</i> , 2016, 40, 6376-6394.	4.2	29
11	High Order Spatial Generalization of 2D and 3D Isotropic Discrete Gradient Operators with Fast Evaluation on GPUs. <i>Journal of Scientific Computing</i> , 2014, 59, 545-573.	2.3	22
12	An approach to control the spurious currents in a multiphase lattice Boltzmann method and to improve the implementation of initial condition. <i>International Journal for Numerical Methods in Fluids</i> , 2015, 77, 732-746.	1.6	21
13	Three-dimensional lattice Boltzmann method benchmarks between color-gradient and pseudo-potential immiscible multi-component models. <i>International Journal of Modern Physics C</i> , 2017, 28, 1750085.	1.7	19
14	An implementation of the Spalart-Allmaras turbulence model in a multi-domain lattice Boltzmann method for solving turbulent airfoil flows. <i>Computers and Mathematics With Applications</i> , 2015, 70, 3001-3018.	2.7	17
15	Multiphase flow modeling of spinodal decomposition based on the cascaded lattice Boltzmann method. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 406, 307-319.	2.6	14
16	Unstable two-phase flow rate in micro-channels and cracks under imposed pressure difference. <i>International Journal of Multiphase Flow</i> , 2015, 77, 131-141.	3.4	14
17	Comparison of multiphase SPH and LBM approaches for the simulation of intermittent flows. <i>Computational Particle Mechanics</i> , 2019, 6, 695-720.	3.0	13
18	Solving incompressible fluid flows on unstructured meshes with the lattice Boltzmann flux solver. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2017, 11, 310-327.	3.1	11

#	ARTICLE	IF	CITATIONS
19	Equilibrium distributions for straight, curved, and immersed boundary conditions in the lattice Boltzmann method. <i>Computers and Fluids</i> , 2014, 101, 126-135.	2.5	10
20	Validation of the pressure dropâ€“flow rate relationship predicted by lattice Boltzmann simulations for immiscible liquidâ€“liquid flows through SMX static mixers. <i>Chemical Engineering Research and Design</i> , 2020, 153, 350-368.	5.6	9
21	Convolution Kernel for Fast CPU/GPU Computation of 2D/3D Isotropic Gradients on a Square/Cubic Lattice. , 0, , .		4
22	Multiphase periodic pressure difference boundary condition enhanced by a proportionalâ€“integralâ€“derivative controller for the lattice Boltzmann method. <i>International Journal for Numerical Methods in Fluids</i> , 2018, 88, 434-446.	1.6	4
23	Characterization of Transport-Enhanced Phase Separation in Porous Media Using a Lattice-Boltzmann Method. <i>Geofluids</i> , 2019, 2019, 1-13.	0.7	4
24	Investigations of water droplet impact and freezing on a cold substrate with the Lattice Boltzmann method. <i>International Journal of Thermofluids</i> , 2021, 12, 100109.	7.8	4
25	Multiscale simulation of ink seepage into paper: A mesoscopic variational model. <i>Computer Physics Communications</i> , 2019, 239, 1-13.	7.5	3
26	Forward and backward finite differences for isotropic gradients on a square lattice derived from a rectangular lattice formulation. <i>International Journal of Computer Mathematics</i> , 2015, 92, 1078-1085.	1.8	2
27	An interpolation-based lattice Boltzmann method for non-conforming orthogonal meshes. <i>Computers and Mathematics With Applications</i> , 2021, 100, 152-166.	2.7	1
28	Simple lattice Boltzmann method algorithm with low memory usage. <i>Journal of Computational Science</i> , 2022, , 101723.	2.9	0