

Jens Harting

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

150
papers

3,582
citations

34
h-index

55
g-index

160
ext. papers

4,042
ext. citations

4
avg, IF

5.77
L-index

#	Paper	IF	Citations
150	Capillary Interactions, Aggregate Formation, and the Rheology of Particle-Laden Flows: A Lattice Boltzmann Study. <i>Industrial & Engineering Chemistry Research</i> , 2022 , 61, 1863-1870	3.9	0
149	Phase-Field Simulation of Liquid-Vapor Equilibrium and Evaporation of Fluid Mixtures. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 55988-56003	9.5	1
148	Squeezing multiple soft particles into a constriction: Transition to clogging.. <i>Physical Review E</i> , 2021 , 104, 065101	2.4	3
147	Two-dimensional Cahn-Hilliard simulations for coarsening kinetics of spinodal decomposition in binary mixtures. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 24823-24833	3.6	1
146	Regimes of motion of magnetocapillary swimmers. <i>European Physical Journal E</i> , 2021 , 44, 59	1.5	0
145	Capillary-bridge forces between solid particles: Insights from lattice Boltzmann simulations. <i>AIChE Journal</i> , 2021 , 67, e17350	3.6	3
144	Scallop Theorem and Swimming at the Mesoscale. <i>Physical Review Letters</i> , 2021 , 126, 224501	7.4	1
143	Structure and rheology of suspensions of spherical strain-hardening capsules. <i>Journal of Fluid Mechanics</i> , 2021 , 911,	3.7	2
142	Controllable Capillary Assembly of Magnetic Ellipsoidal Janus Particles into Tunable Rings, Chains and Hexagonal Lattices. <i>Advanced Materials</i> , 2021 , 33, e2006390	24	6
141	Probing sedimentation non-ideality of particulate systems using analytical centrifugation. <i>Soft Matter</i> , 2021 , 17, 2803-2814	3.6	3
140	Bio-inspired Acousto-magnetic Microswarm Robots with Upstream Motility. <i>Nature Machine Intelligence</i> , 2021 , 3, 116-124	22.5	26
139	Monolayer Structures of Supramolecular Antagonistic Salt Aggregates. <i>Journal of Physical Chemistry B</i> , 2021 , 125, 2351-2359	3.4	1
138	Phoretic colloids close to and trapped at fluid interfaces. <i>ChemNanoMat</i> , 2021 , 7, 1073	3.5	1
137	Lattice Boltzmann simulations of drying suspensions of soft particles. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200399	3	1
136	Lattice Boltzmann simulations of stochastic thin film dewetting. <i>Physical Review E</i> , 2021 , 104, 034801	2.4	0
135	Instability of particle inertial migration in shear flow. <i>Physics of Fluids</i> , 2021 , 33, 092008	4.4	1
134	Transport of neutral and charged nanorods across varying-section channels. <i>Soft Matter</i> , 2021 , 17, 2062-2070	3.67	3

133	Direct numerical simulation of wave propagation in saturated random granular packings using coupled LBM-DEM. <i>EPJ Web of Conferences</i> , 2021 , 249, 14003	0.3	
132	Self-Similar Liquid Lens Coalescence. <i>Physical Review Letters</i> , 2020 , 124, 194502	7.4	9
131	Thermally induced stress in a nanoconfined gas medium. <i>Journal of Molecular Modeling</i> , 2020 , 26, 180	2	1
130	A phase-field model for the evaporation of thin film mixtures. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 6638-6652	3.6	8
129	Numerical simulations of self-diffusiophoretic colloids at fluid interfaces. <i>Soft Matter</i> , 2020 , 16, 3536-3547	3.7	4
128	Role of the Interplay between Spinodal Decomposition and Crystal Growth in the Morphological Evolution of Crystalline Bulk Heterojunctions. <i>Energy Technology</i> , 2020 , 8, 1901468	3.5	5
127	Inertial migration of neutrally buoyant particles in superhydrophobic channels. <i>Physical Review Fluids</i> , 2020 , 5,	2.8	5
126	Heat Conduction Characteristic of Rarefied Gas in Nanochannel. <i>Journal of Applied Fluid Mechanics</i> , 2020 , 13, 1-13	1.5	3
125	Effect of wall stiffness, mass and potential interaction strength on heat transfer characteristics of nanoscale-confined gas. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 147, 118929	4.9	4
124	Structural characterization of an ionic liquid in bulk and in nano-confined environment using data from MD simulations. <i>Data in Brief</i> , 2020 , 28, 104794	1.2	2
123	Inertial migration of oblate spheroids in a plane channel. <i>Physics of Fluids</i> , 2020 , 32, 112017	4.4	7
122	Catalytic flow with a coupled finite difference Lattice Boltzmann scheme. <i>Computer Physics Communications</i> , 2020 , 256, 107443	4.2	3
121	Capillary interactions between soft capsules protruding through thin fluid films. <i>Soft Matter</i> , 2020 , 16, 10910-10920	3.6	2
120	Desorption energy of soft particles from a fluid interface. <i>Soft Matter</i> , 2020 , 16, 8655-8666	3.6	9
119	Equilibrium Orientation and Adsorption of an Ellipsoidal Janus Particle at a Fluid-Fluid Interface. <i>Colloids and Interfaces</i> , 2020 , 4, 55	3	2
118	Interplay of wall force field and wall physical characteristics on interfacial phenomena of a nano-confined gas medium. <i>International Journal of Thermal Sciences</i> , 2020 , 153, 106394	4.1	3
117	Mesoscale simulation of soft particles with tunable contact angle in multicomponent fluids. <i>Physical Review E</i> , 2019 , 100, 033309	2.4	4
116	Insights from molecular dynamics simulations on structural organization and diffusive dynamics of an ionic liquid at solid and vacuum interfaces. <i>Journal of Colloid and Interface Science</i> , 2019 , 553, 350-363	9.3	10

115	Hydro-micromechanical modeling of wave propagation in saturated granular crystals. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019 , 43, 1115-1139	4	13
114	Strict Equivalence between Maxwell-Stefan and Fast-Mode Theory for Multicomponent Polymer Mixtures. <i>Macromolecules</i> , 2019 , 52, 6035-6044	5.5	3
113	The effect of the liquid layer thickness on the dissolution of immersed surface droplets. <i>Soft Matter</i> , 2019 , 15, 6461-6468	3.6	7
112	How antagonistic salts cause nematic ordering and behave like diblock copolymers. <i>Journal of Chemical Physics</i> , 2019 , 150, 064912	3.9	2
111	A general perturbative approach for bead-based microswimmers reveals rich self-propulsion phenomena. <i>New Journal of Physics</i> , 2019 , 21, 113017	2.9	4
110	Capillary assemblies in a rotating magnetic field. <i>Soft Matter</i> , 2019 , 15, 9093-9103	3.6	9
109	Optimal motion of triangular magnetocapillary swimmers. <i>Journal of Chemical Physics</i> , 2019 , 151, 124707	3.9	10
108	Lattice Boltzmann method for thin-liquid-film hydrodynamics. <i>Physical Review E</i> , 2019 , 100, 033313	2.4	5
107	Modeling of capillary-driven flows in axisymmetric geometries. <i>Computers and Fluids</i> , 2019 , 178, 132-140	2.8	7
106	Effect of temperature difference between channel walls on the heat transfer characteristics of nanoscale-confined gas. <i>International Journal of Thermal Sciences</i> , 2019 , 137, 13-25	4.1	5
105	Mesoscale Simulations of Janus Particles and Deformable Capsules in Flow 2018 , 369-385		1
104	From Dot to Ring: The Role of Friction in the Deposition Pattern of a Drying Colloidal Suspension Droplet. <i>Langmuir</i> , 2018 , 34, 5303-5311	4	13
103	Heat transfer by nanofluids in wavy microchannels. <i>Advanced Powder Technology</i> , 2018 , 29, 925-933	4.6	20
102	Inertial focusing of finite-size particles in microchannels. <i>Journal of Fluid Mechanics</i> , 2018 , 840, 613-630	3.7	40
101	Mesosopic electrohydrodynamic simulations of binary colloidal suspensions. <i>Journal of Chemical Physics</i> , 2018 , 148, 144101	3.9	9
100	Interplay of confinement and density on the heat transfer characteristics of nanoscale-confined gas. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 331-341	4.9	4
99	Optimal cell transport in straight channels and networks. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	5
98	Blood Crystal: Emergent Order of Red Blood Cells Under Wall-Confined Shear Flow. <i>Physical Review Letters</i> , 2018 , 120, 268102	7.4	8

97	Diffusion dominated evaporation in multicomponent lattice Boltzmann simulations. <i>Journal of Chemical Physics</i> , 2017 , 146, 054111	3.9	13
96	LB3D: A parallel implementation of the Lattice-Boltzmann method for simulation of interacting amphiphilic fluids. <i>Computer Physics Communications</i> , 2017 , 217, 149-161	4.2	26
95	Effect of body deformability on microswimming. <i>Soft Matter</i> , 2017 , 13, 3984-3993	3.6	5
94	Setting the pace of microswimmers: when increasing viscosity speeds up self-propulsion. <i>New Journal of Physics</i> , 2017 , 19, 053024	2.9	19
93	Hydraulic properties of porous sintered glass bead systems. <i>Granular Matter</i> , 2017 , 19, 1	2.6	13
92	Direct Assembly of Magnetic Janus Particles at a Droplet Interface. <i>ACS Nano</i> , 2017 , 11, 11232-11239	16.7	28
91	Direct simulation of liquid-gas-solid flow with a free surface lattice Boltzmann method. <i>International Journal of Computational Fluid Dynamics</i> , 2017 , 31, 463-475	1.2	6
90	Active elasto-hydrodynamics of vesicles in narrow blind constrictions. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	11
89	Two-dimensional lattice Boltzmann simulations of vesicles with viscosity contrast. <i>Rheologica Acta</i> , 2016 , 55, 465-475	2.3	18
88	Curvature estimation from a volume-of-fluid indicator function for the simulation of surface tension and wetting with a free-surface lattice Boltzmann method. <i>Physical Review E</i> , 2016 , 93, 043302	2.4	14
87	Multiphase lattice Boltzmann simulations for porous media applications. <i>Computational Geosciences</i> , 2016 , 20, 777-805	2.7	223
86	Soft particles at a fluid interface. <i>Soft Matter</i> , 2016 , 12, 1062-73	3.6	41
85	Mesoscale Simulations of Anisotropic Particles at Fluid-Fluid Interfaces 2016 , 565-577		1
84	Inversion of hematocrit partition at microfluidic bifurcations. <i>Microvascular Research</i> , 2016 , 105, 40-6	3.7	48
83	Controlled capillary assembly of magnetic Janus particles at fluid-fluid interfaces. <i>Soft Matter</i> , 2016 , 12, 6566-74	3.6	18
82	Tunable dipolar capillary deformations for magnetic Janus particles at fluid-fluid interfaces. <i>Soft Matter</i> , 2015 , 11, 3581-8	3.6	29
81	Dynamic wetting: status and prospective of single particle based experiments and simulations. <i>New Biotechnology</i> , 2015 , 32, 420-32	6.4	17
80	Mesoscale Simulations of Fluid-Fluid Interfaces 2015 , 545-558		

79	Parallelised HoshenKopelman algorithm for lattice-Boltzmann simulations. <i>Computer Physics Communications</i> , 2015 , 189, 92-98	4.2	16
78	Timescales of emulsion formation caused by anisotropic particles. <i>Soft Matter</i> , 2014 , 10, 4977-89	3.6	37
77	Interplay between microdynamics and macrorheology in vesicle suspensions. <i>Soft Matter</i> , 2014 , 10, 4735-42	3.4	11
76	Interface deformations affect the orientation transition of magnetic ellipsoidal particles adsorbed at fluid-fluid interfaces. <i>Soft Matter</i> , 2014 , 10, 6742-8	3.6	32
75	Hydrodynamic interactions induce anomalous diffusion under partial confinement. <i>Soft Matter</i> , 2014 , 10, 2945-8	3.6	29
74	Prediction of anomalous blood viscosity in confined shear flow. <i>Physical Review Letters</i> , 2014 , 112, 238304	3.4	27
73	Assembling ellipsoidal particles at fluid interfaces using switchable dipolar capillary interactions. <i>Advanced Materials</i> , 2014 , 26, 6715-9	24	56
72	Toward a continuum model for particle-induced velocity fluctuations in suspension flow through a stenosed geometry. <i>International Journal of Modern Physics C</i> , 2014 , 25, 1441013	1.1	3
71	Domain and droplet sizes in emulsions stabilized by colloidal particles. <i>Physical Review E</i> , 2014 , 90, 042307	3.4	17
70	Lattice-Boltzmann simulations of the drag force on a sphere approaching a superhydrophobic striped plane. <i>Journal of Chemical Physics</i> , 2014 , 140, 034707	3.9	11
69	Detachment energies of spheroidal particles from fluid-fluid interfaces. <i>Journal of Chemical Physics</i> , 2014 , 141, 154902	3.9	39
68	Capillary Interactions: Assembling Ellipsoidal Particles at Fluid Interfaces Using Switchable Dipolar Capillary Interactions (Adv. Mater. 39/2014). <i>Advanced Materials</i> , 2014 , 26, 6800-6800	24	1
67	Recent advances in the simulation of particle-laden flows. <i>European Physical Journal: Special Topics</i> , 2014 , 223, 2253-2267	2.3	19
66	Forced transport of deformable containers through narrow constrictions. <i>Physical Review E</i> , 2014 , 90, 033006	2.4	26
65	Interplay of inertia and deformability on rheological properties of a suspension of capsules. <i>Journal of Fluid Mechanics</i> , 2014 , 751, 725-745	3.7	66
64	Numerical simulations of complex fluid-fluid interface dynamics. <i>European Physical Journal: Special Topics</i> , 2013 , 222, 177-198	2.3	51
63	Lattice Boltzmann simulations of anisotropic particles at liquid interfaces. <i>Computers and Fluids</i> , 2013 , 80, 184-189	2.8	46
62	Complex dynamics of a bilamellar vesicle as a simple model for leukocytes. <i>Soft Matter</i> , 2013 , 9, 8057	3.6	20

61	From creeping to inertial flow in porous media: a lattice Boltzmann finite element study. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013 , 2013, P02038	1.9	20
60	Multi Relaxation Time Lattice Boltzmann Simulations of Multiple Component Fluid Flows in Porous Media 2013 , 39-49		4
59	Flow past superhydrophobic surfaces with cosine variation in local slip length. <i>Physical Review E</i> , 2013 , 87, 023005	2.4	23
58	Simplified Models for Coarse-Grained Hemodynamics Simulations 2013 , 53-64		
57	How does confinement affect the dynamics of viscous vesicles and red blood cells?. <i>Soft Matter</i> , 2012 , 8, 9246	3.6	50
56	Hydrodynamic interactions in active colloidal crystal microrheology. <i>Physical Review E</i> , 2012 , 86, 057302	2.4	5
55	Effects of nanoparticles and surfactant on droplets in shear flow. <i>Soft Matter</i> , 2012 , 8, 6542	3.6	74
54	Tensorial slip of superhydrophobic channels. <i>Physical Review E</i> , 2012 , 85, 016324	2.4	44
53	Micro- and nanoscale fluid flow on chemical channels. <i>Soft Matter</i> , 2012 , 8, 9221	3.6	11
52	Quantification of the performance of chaotic micromixers on the basis of finite time Lyapunov exponents. <i>Microfluidics and Nanofluidics</i> , 2012 , 13, 19-27	2.8	6
51	Experimental and numerical investigation of nanofluid forced convection inside a wide microchannel heat sink. <i>Applied Thermal Engineering</i> , 2012 , 36, 260-268	5.8	196
50	Optimization of Chaotic Micromixers Using Finite Time Lyapunov Exponents 2012 , 325-336		1
49	Micro-rheology on (polymer-grafted) colloids using optical tweezers. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 184114	1.8	12
48	Rotational behaviour of red blood cells in suspension: a mesoscale simulation study. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 2337-44	3	7
47	Lattice Boltzmann simulations of liquid film drainage between smooth surfaces. <i>IMA Journal of Applied Mathematics</i> , 2011 , 76, 761-773	1	2
46	Contact Angle Determination in Multicomponent Lattice Boltzmann Simulations. <i>Communications in Computational Physics</i> , 2011 , 9, 1165-1178	2.4	39
45	Simulations of Blood Flow in Plain Cylindrical and Constricted Vessels with Single Cell Resolution. <i>Macromolecular Theory and Simulations</i> , 2011 , 20, 562-570	1.5	4
44	Eulerian-Eulerian two-phase numerical simulation of nanofluid laminar forced convection in a microchannel. <i>International Journal of Heat and Fluid Flow</i> , 2011 , 32, 107-116	2.4	192

43	From bijels to Pickering emulsions: a lattice Boltzmann study. <i>Physical Review E</i> , 2011 , 83, 046707	2.4	120
42	Simulations of slip flow on nanobubble-laden surfaces. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 184106	1.8	29
41	Two-dimensional vesicle dynamics under shear flow: effect of confinement. <i>Physical Review E</i> , 2011 , 83, 066319	2.4	49
40	Quantitative analysis of numerical estimates for the permeability of porous media from lattice-Boltzmann simulations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010 , 2010, P11026	1.9	40
39	Random-roughness hydrodynamic boundary conditions. <i>Physical Review Letters</i> , 2010 , 105, 016001	7.4	51
38	Implementation of on-site velocity boundary conditions for D3Q19 lattice Boltzmann simulations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010 , 2010, P01018	1.9	92
37	Simplified particulate model for coarse-grained hemodynamics simulations. <i>Physical Review E</i> , 2010 , 82, 056710	2.4	37
36	Contact angle dependence on the fluid-wall dispersive energy. <i>Langmuir</i> , 2010 , 26, 10913-7	4	24
35	Lattice Boltzmann simulations in microfluidics: probing the no-slip boundary condition in hydrophobic, rough, and surface nanobubble laden microchannels. <i>Microfluidics and Nanofluidics</i> , 2010 , 8, 1	2.8	48
34	Agglomeration and filtration of colloidal suspensions with DVLO interactions in simulation and experiment. <i>Journal of Colloid and Interface Science</i> , 2010 , 349, 186-95	9.3	29
33	Evaluation of Pressure Boundary Conditions for Permeability Calculations Using the Lattice-Boltzmann Method. <i>Advances in Applied Mathematics and Mechanics</i> , 2010 , 2, 685-700	2.1	10
32	Using Computational Steering to Explore the Parameter Space of Stability in a Suspension 2010 , 33-48		
31	Numerical Modeling of Fluid Flow in Porous Media and in Driven Colloidal Suspensions 2009 , 349-363		1
30	Computational steering of cluster formation in Brownian suspensions. <i>Computers and Mathematics With Applications</i> , 2009 , 58, 995-1002	2.7	5
29	Simulation of fluid flow in hydrophobic rough microchannels. <i>International Journal of Computational Fluid Dynamics</i> , 2008 , 22, 475-480	1.2	31
28	Colloids dragged through a polymer solution: Experiment, theory, and simulation. <i>Journal of Chemical Physics</i> , 2008 , 129, 084902	3.9	41
27	Anomalous distribution functions in sheared suspensions. <i>Europhysics Letters</i> , 2008 , 83, 30001	1.6	11
26	Slip flow over structured surfaces with entrapped microbubbles. <i>Physical Review Letters</i> , 2008 , 100, 246601	6.1	159

25	On the effect of surfactant adsorption and viscosity change on apparent slip in hydrophobic microchannels. <i>Progress in Computational Fluid Dynamics</i> , 2008 , 8, 197	0.7	6
24	Lattice Boltzmann Simulations of Microemulsions and Binary Immiscible Fluids Under Shear 2008 , 457-470		
23	Structural Transitions in Colloidal Suspensions 2008 , 45-65		
22	FORMATION AND GROWTH OF CLUSTERS IN COLLOIDAL SUSPENSIONS. <i>International Journal of Modern Physics C</i> , 2007 , 18, 501-510	1.1	10
21	Structural transitions and arrest of domain growth in sheared binary immiscible fluids and microemulsions. <i>Physical Review E</i> , 2007 , 75, 041504	2.4	8
20	Stability diagram for dense suspensions of model colloidal Al ₂ O ₃ particles in shear flow. <i>Physical Review E</i> , 2007 , 75, 051404	2.4	12
19	Simulations of Particle Suspensions at the Institute for Computational Physics 2007 , 83-92		
18	Roughness induced boundary slip in microchannel flows. <i>Physical Review Letters</i> , 2007 , 99, 176001	7.4	77
17	Rheological Properties of Binary and Ternary Amphiphilic Fluid Mixtures 2007 , 355-364		
16	Emergence of rheological properties in lattice Boltzmann simulations of gyroid mesophases. <i>Europhysics Letters</i> , 2006 , 73, 533-539	1.6	23
15	Shear viscosity of claylike colloids in computer simulations and experiments. <i>Physical Review E</i> , 2006 , 74, 021403	2.4	31
14	Stress response and structural transitions in sheared gyroidal and lamellar amphiphilic mesophases: Lattice-Boltzmann simulations. <i>Physical Review E</i> , 2006 , 73, 031503	2.4	12
13	Lattice Boltzmann simulations of apparent slip in hydrophobic microchannels. <i>Europhysics Letters</i> , 2006 , 75, 328-334	1.6	67
12	Computer Simulation of Particle Suspensions 2006 , 113-143		2
11	Large-scale lattice Boltzmann simulations of complex fluids: advances through the advent of computational Grids. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005 , 363, 1895-915	3	63
10	Simulation of claylike colloids. <i>Physical Review E</i> , 2005 , 72, 011408	2.4	110
9	Detection and tracking of defects in the gyroid mesophase. <i>Computer Physics Communications</i> , 2005 , 165, 97-109	4.2	16
8	Transport phenomena and structuring in shear flow of suspensions near solid walls. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2004 , 2004, P12003	1.9	26

7	Large-scale grid-enabled lattice Boltzmann simulations of complex fluid flow in porous media and under shear. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2004 , 362, 1703-22	3	33
6	Steering in computational science: Mesoscale modelling and simulation. <i>Contemporary Physics</i> , 2003 , 44, 417-434	3.3	35
5	Order-disorder transition in nanoscopic semiconductor quantum rings. <i>Physical Review Letters</i> , 2001 , 86, 3120-3	7.4	17
4	Classification of phase transitions of finite Bose-Einstein condensates in power-law traps by Fisher zeros. <i>Physical Review A</i> , 2001 , 64,	2.6	36
3	Classification of phase transitions in small systems. <i>Physical Review Letters</i> , 2000 , 84, 3511-4	7.4	109
2	Interplay between shell effects and electron correlations in quantum dots. <i>Physical Review B</i> , 2000 , 62, 10207-10211	3.3	43
1	Calculation of thermodynamic properties of finite Bose-Einstein systems. <i>Physical Review A</i> , 1999 , 60, 1519-1522	2.6	42