Xiao-Ping Wang

List of Publications by Year
in descending order

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46 papers	1,991 citations	279798 23 h-index	243625 44 g-index
46 all docs	46 docs citations	46 times ranked	1132 citing authors

#	Article	IF	Citations
1	The iterative convolutionâ€“thresholding method (ICTM) for image segmentation. Pattern Recognition, 2022, 130, 108794.	8.1	19
2	Two improved Gauss-Seidel projection methods for Landau-Lifshitz-Gilbert equation. Journal of Computational Physics, 2020, 401, 109046.	3.8	7
3	An integral equation method for the Cahn-Hilliard equation in the wetting problem. Journal of Computational Physics, 2020, 419, 109521.	3.8	3
4	Energy Decaying Phase-Field Model for Fluid-Particle Interaction in Two-Phase Flow. SIAM Journal on Applied Mathematics, 2020, 80, 572-598.	1.8	0
5	An improved threshold dynamics method for wetting dynamics. Journal of Computational Physics, 2019, 392, 291-310.	3.8	15
6	A reduced model for domain wall dynamics in soft ferromagnets. Journal of Magnetism and Magnetic Materials, 2019, 479, 199-203.	2.3	1
7	Interface Dynamics for an Allen--Cahn-Type Equation Governing a Matrix-Valued Field. Multiscale Modeling and Simulation, 2019, 17, 1252-1273.	1.6	9
8	A lattice Boltzmann model for multiphase flows with moving contact line and variable density. Journal of Computational Physics, 2018, 353, 26-45.	3.8	10
9	An Efficient Boundary Integral Scheme for the MBO Threshold Dynamics Method via the NUFFT. Journal of Scientific Computing, 2018, 74, 474-490.	2.3	9
10	A Parallel Finite Element Method for 3D Two-Phase Moving Contact Line Problems in Complex Domains. Journal of Scientific Computing, 2017, 72, 1119-1145.	2.3	2
11	An efficient finite element method for simulation of droplet spreading on a topologically rough surface. Journal of Computational Physics, 2017, 349, 233-252.	3.8	23
12	The Dynamics of Three-Phase Triple Junction and Contact Points. SIAM Journal on Applied Mathematics, 2017, 77, 1805-1826.	1.8	3
13	A dynamic theory for contact angle hysteresis on chemically rough boundary. Discrete and Continuous Dynamical Systems, 2017, 37, 1061-1073.	0.9	5
14	A Parallel Two-Phase Flow Solver on Unstructured Mesh in 3D. Lecture Notes in Computational Science and Engineering, 2017, , 379-387.	0.3	0
15	Phase field simulation of a droplet impacting a solid surface. Physics of Fluids, 2016, 28, .	4.0	48
16	Phase field modeling and simulation of three-phase flow on solid surfaces. Journal of Computational Physics, 2016, 319, 79-107.	3.8	27
17	A numerical study of three-dimensional droplets spreading on chemically patterned surfaces. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 2905-2926.	0.9	2
18	Phase-Field Modeling and Simulation of the Zone Melting Purification Process. SIAM Journal on Applied Mathematics, 2014, 74, 1115-1135.	1.8	2

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19	Modeling and simulation of dynamics of three-component flows on solid surface. Japan Journal of Industrial and Applied Mathematics, 2014, 31, 611-631.	0.9	27
20	A numerical method for a model of two-phase flow in a coupled free flow and porous media system. Journal of Computational Physics, 2014, 268, 1-16.	3.8	52
21	An efficient scheme for a phase field model for the moving contact line problem with variable density and viscosity. Journal of Computational Physics, 2014, 272, 704-718.	3.8	44
22	Effective contact angle for rough boundary. Physica D: Nonlinear Phenomena, 2013, 242, 54-64.	2.8	13
23	3D adaptive finite element method for a phase field model for the moving contact line problems. Inverse Problems and Imaging, 2013, 7, 947-959.	1.1	9
24	A finite element method for the numerical solution of the coupled Cahnâ€“Hilliard and Navierâ€“Stokes system for moving contact line problems. Journal of Computational Physics, 2012, 231, 8083-8099.	3.8	59
25	A gradient stable scheme for a phase field model for the moving contact line problem. Journal of Computational Physics, 2012, 231, 1372-1386.	3.8	67
26	A least-squares/finite element method for the numerical solution of the Navierâ€“Stokes-Cahnâ€“Hilliard system modeling the motion of the contact line. Journal of Computational Physics, 2011, 230, 4991-5009.	3.8	39
27	Hydrodynamic boundary conditions: An emergent behavior of fluidâ€“solid interactions. Solid State Communications, 2010, 150, 976-989.	1.9	2
28	Modeling and simulations for molecular scale hydrodynamics of the moving contact line in immiscible two-phase flows. Journal of Physics Condensed Matter, 2009, 21, 464119.	1.8	8
29	Precursor simulations in spreading using a multi-mesh adaptive finite element method. Journal of Computational Physics, 2009, 228, 1380-1390.	3.8	13
30	The effect of the boundary slip on the stability of shear flow. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2008, 88, 729-734.	1.6	10
31	Moving contact line on chemically patterned surfaces. Journal of Fluid Mechanics, 2008, 605, 59-78.	3.4	110
32	Singular ring solutions of critical and supercritical nonlinear SchrÃ¶dinger equations. Physica D: Nonlinear Phenomena, 2007, 231, 55-86.	2.8	41
33	Spin-polarized currents in ferromagnetic multilayers. Journal of Computational Physics, 2007, 224, 699-711.	3.8	20
34	A variational approach to moving contact line hydrodynamics. Journal of Fluid Mechanics, 2006, 564, 333.	3.4	301
35	Moving contact line over undulating surfaces. Solid State Communications, 2006, 139, 623-629.	1.9	24
36	Instability of standing waves of the SchrÃ¶dinger equation with inhomogeneous nonlinearity. Transactions of the American Mathematical Society, 2005, 358, 2105-2122.	0.9	39

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37	New singular solutions of the nonlinear SchrÃ¶dinger equation. Physica D: Nonlinear Phenomena, 2005, 211, 193-220.	2.8	57
38	Power-Law Slip Profile of the Moving Contact Line in Two-Phase Immiscible Flows. Physical Review Letters, 2004, 93, 094501.	7.8	93
39	A three-dimensional adaptive method based on the iterative grid redistribution. Journal of Computational Physics, 2004, 199, 423-436.	3.8	20
40	Stability of solitary waves for nonlinear SchrÃ¶dinger equations with inhomogeneous nonlinearities. Physica D: Nonlinear Phenomena, 2003, 175, 96-108.	2.8	60
41	Numerical simulations of self-focusing of ultrafast laser pulses. Physical Review E, 2003, 67, 056603.	2.1	29
42	Molecular scale contact line hydrodynamics of immiscible flows. Physical Review E, 2003, 68, 016306.	2.1	307
43	A Gaussâ€“Seidel Projection Method for Micromagnetics Simulations. Journal of Computational Physics, 2001, 171, 357-372.	3.8	131
44	An Iterative Grid Redistribution Method for Singular Problems in Multiple Dimensions. Journal of Computational Physics, 2000, 159, 246-273.	3.8	93
45	Numerical Methods for the Landau--Lifshitz Equation. SIAM Journal on Numerical Analysis, 2000, 38, 1647-1665.	2.3	91
46	Nonlinear stability of solitary waves of a generalized Kadomtsev-Petviashvili equation. Communications in Mathematical Physics, 1997, 183, 253-266.	2.2	47