Jaemin Shin

List of Publications by Year
in descending order

39 papers	818 citations	471061 17 h-index	500791 28 g-index
39 all docs	39 docs citations	39 times ranked	468 citing authors

#	Article	IF	Citations
1	Physical, mathematical, and numerical derivations of the Cahnâ€“Hilliard equation. Computational Materials Science, 2014, 81, 216-225.	1.4	113
2	First and second order numerical methods based on a new convex splitting for phase-field crystal equation. Journal of Computational Physics, 2016, 327, 519-542.	1.9	62
3	Dynamics of a compound droplet in shear flow. International Journal of Heat and Fluid Flow, 2014, 50, 63-71.	1.1	54
4	A conservative numerical method for the Cahnâ€“Hilliard equation with Dirichlet boundary conditions in complex domains. Computers and Mathematics With Applications, 2013, 65, 102-115.	1.4	46
5	Unconditionally stable methods for gradient flow using Convex Splitting Rungeâ€“Kutta scheme. Journal of Computational Physics, 2017, 347, 367-381.	1.9	46
6	Finite Element Analysis of Schwarz P Surface Pore Geometries for Tissue-Engineered Scaffolds. Mathematical Problems in Engineering, 2012, 2012, 1-13.	0.6	40
7	First and second order operator splitting methods for the phase field crystal equation. Journal of Computational Physics, 2015, 299, 82-91.	1.9	36
8	Three-dimensional volume reconstruction from slice data using phase-field models. Computer Vision and Image Understanding, 2015, 137, 115-124.	3.0	34
9	First- and second-order energy stable methods for the modified phase field crystal equation. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 1-17.	3.4	34
10	A conservative numerical method for the Cahnâ€“Hilliard equation in complex domains. Journal of Computational Physics, 2011, 230, 7441-7455.	1.9	30
11	A fourth-order spatial accurate and practically stable compact scheme for the Cahnâ€“Hilliard equation. Physica A: Statistical Mechanics and Its Applications, 2014, 409, 17-28.	1.2	27
12	Convex Splitting Rungeâ€“Kutta methods for phase-field models. Computers and Mathematics With Applications, 2017, 73, 2388-2403.	1.4	27
13	Three-dimensional volume-conserving immersed boundary model for two-phase fluid flows. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 36-46.	3.4	24
14	Level Set, Phase-Field, and Immersed Boundary Methods for Two-Phase Fluid Flows. Journal of Fluids Engineering, Transactions of the ASME, 2014, 136, .	0.8	22
15	Comparison study of numerical methods for solving the Allenâ€“Cahn equation. Computational Materials Science, 2016, 111, 131-136.	1.4	22
16	Numerical analysis of energy-minimizing wavelengths of equilibrium states for diblock copolymers. Current Applied Physics, 2014, 14, 1263-1272.	1.1	21
17	A parallel multigrid method of the Cahnâ€“Hilliard equation. Computational Materials Science, 2013, 71, 89-96.	1.4	18
18	Phase-field simulations of crystal growth in a two-dimensional cavity flow. Computer Physics Communications, 2017, 216, 84-94.	3.0	17

#	Article	IF	Citations
19	Energy stable compact scheme for Cahnâ€“Hilliard equation with periodic boundary condition. Computers and Mathematics With Applications, 2019, 77, 189-198.	1.4	17
20	A hybrid FEM for solving the Allenâ€“Cahn equation. Applied Mathematics and Computation, 2014, 244, 606-612.	1.4	16
21	A High-Order and Unconditionally Energy Stable Scheme for the Conservative Allenâ€“Cahn Equation with a Nonlocal Lagrange Multiplier. Journal of Scientific Computing, 2022, 90, 1.	1.1	15
22	Long-time simulation of the phase-field crystal equation using high-order energy-stable CSRK methods. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112981.	3.4	13
23	Effect of confinement on droplet deformation in shear flow. International Journal of Computational Fluid Dynamics, 2013, 27, 317-331.	0.5	11
24	A linear, high-order, and unconditionally energy stable scheme for the epitaxial thin film growth model without slope selection. Applied Numerical Mathematics, 2021, 163, 30-42.	1.2	9
25	Energy quadratization Rungeâ€“Kutta scheme for the conservative Allenâ€“Cahn equation with a nonlocal Lagrange multiplier. Applied Mathematics Letters, 2022, 132, 108161.	1.5	9
26	The Cahnâ€“Hilliard Equation with Generalized Mobilities in Complex Geometries. Mathematical Problems in Engineering, 2019, 2019, 1-10.	0.6	7
27	Comparison of optimization algorithms for modeling of Haldane-type growth kinetics during phenol and benzene degradation. Biochemical Engineering Journal, 2016, 106, 118-124.	1.8	6
28	The Navierâ€“Stokesâ€“Cahnâ€“Hilliard model with a high-order polynomial free energy. Acta Mechanica, 2020, 231, 2425-2437.	1.1	6
29	A Second-Order Operator Splitting Fourier Spectral Method for Models of Epitaxial Thin Film Growth. Journal of Scientific Computing, 2017, 71, 1303-1318.	1.1	5
30	AN UNCONDITIONALLY GRADIENT STABLE NUMERICAL METHOD FOR THE OHTA-KAWASAKI MODEL. Bulletin of the Korean Mathematical Society, 2017, 54, 145-158.	0.3	5
31	An energy stable Rungeâ€“Kutta method for convex gradient problems. Journal of Computational and Applied Mathematics, 2020, 367, 112455.	1.1	4
32	AN ADAPTIVE FINITE DIFFERENCE METHOD USING FAR-FIELD BOUNDARY CONDITIONS FOR THE BLACK-SCHOLES EQUATION. Bulletin of the Korean Mathematical Society, 2014, 51, 1087-1100.	0.3	4
33	A hybrid numerical method for the phaseâ€field model of fluid vesicles in threeâ€dimensional space. International Journal for Numerical Methods in Fluids, 2015, 78, 63-75.	0.9	3
34	A High-Order Convex Splitting Method for a Non-Additive Cahnâ€“Hilliard Energy Functional. Mathematics, 2019, 7, 1242.	1.1	3
35	An unconditionally stable numerical method for the viscous Cahn--Hilliard equation. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 1737-1747.	0.5	3
36	Energy quadratization Rungeâ€“Kutta method for the modified phase field crystal equation. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 024004.	0.8	3

#	Article	IF	Citations
37	Energy conserving successive multi-stage method for the linear wave equation. Journal of Computational Physics, 2022, 458, 111098.	1.9	3
38	Numerical Study of Periodic Traveling Wave Solutions for the Predatorâ€“Prey Model with Landscape Features. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1550117.	0.7	2
39	A numerical characteristic method for probability generating functions on stochastic first-order reaction networks. Journal of Mathematical Chemistry, 2013, 51, 316-337.	0.7	1