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	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
2	Energy conserving successive multi-stage method for the linear wave equation. Journal of Computational Physics, 2022, 458, 111098.	1.9	3
3	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
4	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
5	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
6	An energy stable Rungeâ€“Kutta method for convex gradient problems. Journal of Computational and Applied Mathematics, 2020, 367, 112455.	1.1	4
7	The Navierâ€“Stokesâ€“Cahnâ€“Hilliard model with a high-order polynomial free energy. Acta Mechanica, 2020, 231, 2425-2437.	1.1	6
8	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
9	The Cahnâ€“Hilliard Equation with Generalized Mobilities in Complex Geometries. Mathematical Problems in Engineering, 2019, 2019, 1-10.	0.6	7
10	A High-Order Convex Splitting Method for a Non-Additive Cahnâ€“Hilliard Energy Functional. Mathematics, 2019, 7, 1242.	1.1	3
11	Energy stable compact scheme for Cahnâ€“Hilliard equation with periodic boundary condition. Computers and Mathematics With Applications, 2019, 77, 189-198.	1.4	17
12	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
13	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
14	Phase-field simulations of crystal growth in a two-dimensional cavity flow. Computer Physics Communications, 2017, 216, 84-94.	3.0	17
15	Convex Splitting Rungeâ€“Kutta methods for phase-field models. Computers and Mathematics With Applications, 2017, 73, 2388-2403.	1.4	27
16	Unconditionally stable methods for gradient flow using Convex Splitting Rungeâ€“Kutta scheme. Journal of Computational Physics, 2017, 347, 367-381.	1.9	46
17	AN UNCONDITIONALLY GRADIENT STABLE NUMERICAL METHOD FOR THE OHTA-KAWASAKI MODEL. Bulletin of the Korean Mathematical Society, 2017, 54, 145-158.	0.3	5
18	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

#	Article	IF	Citations
19	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
20	Comparison study of numerical methods for solving the Allenâ€“Cahn equation. Computational Materials Science, 2016, 111, 131-136.	1.4	22
21	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
22	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
23	Three-dimensional volume reconstruction from slice data using phase-field models. Computer Vision and Image Understanding, 2015, 137, 115-124.	3.0	34
24	First and second order operator splitting methods for the phase field crystal equation. Journal of Computational Physics, 2015, 299, 82-91.	1.9	36
25	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
26	Physical, mathematical, and numerical derivations of the Cahnâ€“Hilliard equation. Computational Materials Science, 2014, 81, 216-225.	1.4	113
27	Numerical analysis of energy-minimizing wavelengths of equilibrium states for diblock copolymers. Current Applied Physics, 2014, 14, 1263-1272.	1.1	21
28	A hybrid FEM for solving the Allenâ€“Cahn equation. Applied Mathematics and Computation, 2014, 244, 606-612.	1.4	16
29	Dynamics of a compound droplet in shear flow. International Journal of Heat and Fluid Flow, 2014, 50, 63-71.	1.1	54
30	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
31	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
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	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
34	Effect of confinement on droplet deformation in shear flow. International Journal of Computational Fluid Dynamics, 2013, 27, 317-331.	0.5	11
35	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
36	A parallel multigrid method of the Cahnâ€“Hilliard equation. Computational Materials Science, 2013, 71, 89-96.	1.4	18

#	Article	IF	Citations
37	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
38	Finite Element Analysis of Schwarz P Surface Pore Geometries for Tissue-Engineered Scaffolds. Mathematical Problems in Engineering, 2012, 2012, 1-13.	0.6	40
39	A conservative numerical method for the Cahnâ€“Hilliard equation in complex domains. Journal of Computational Physics, 2011, 230, 7441-7455.	1.9	30