Darae Jeong

List of Publications by Year
in descending order

66 papers	1,214 citations	394421 19 h-index	414414 32 g-index
66 all docs	66 docs citations	66 times ranked	632 citing authors

#	Article	IF	Citations
1	Physical, mathematical, and numerical derivations of the Cahnâ€“Hilliard equation. Computational Materials Science, 2014, 81, 216-225.	3.0	113
2	An unconditionally gradient stable numerical method for solving the Allenâ€“Cahn equation. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1791-1803.	2.6	108
3	An unconditionally stable hybrid numerical method for solving the Allenâ€“Cahn equation. Computers and Mathematics With Applications, 2010, 60, 1591-1606.	2.7	106
4	Conservative Allenâ€“Cahnâ€“Navierâ€“Stokes system for incompressible two-phase fluid flows. Computers and Fluids, 2017, 156, 239-246.	2.5	66
5	Fast local image inpainting based on the Allenâ€“Cahn model. , 2015, 37, 65-74.		51
6	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.	2.7	46
7	Basic Principles and Practical Applications of the Cahnâ€“Hilliard Equation. Mathematical Problems in Engineering, 2016, 2016, 1-11.	1.1	45
8	Finite Element Analysis of Schwarz P Surface Pore Geometries for Tissue-Engineered Scaffolds. Mathematical Problems in Engineering, 2012, 2012, 1-13.	1.1	40
9	An explicit hybrid finite difference scheme for the Allenâ€“Cahn equation. Journal of Computational and Applied Mathematics, 2018, 340, 247-255.	2.0	36
10	A conservative numerical method for the Cahnâ€“Hilliard equation in complex domains. Journal of Computational Physics, 2011, 230, 7441-7455.	3.8	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.	2.6	27
12	A finite difference method for a conservative Allenâ€“Cahn equation on non-flat surfaces. Journal of Computational Physics, 2017, 334, 170-181.	3.8	27
13	A comparison study of ADI and operator splitting methods on option pricing models. Journal of Computational and Applied Mathematics, 2013, 247, 162-171.	2.0	25
14	Motion by mean curvature of curves on surfaces using the Allenâ€“Cahn equation. International Journal of Engineering Science, 2015, 97, 126-132.	5.0	25
15	Three-dimensional volume-conserving immersed boundary model for two-phase fluid flows. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 36-46.	6.6	24
16	Microphase separation patterns in diblock copolymers on curved surfaces using a nonlocal Cahn-Hilliard equation. European Physical Journal E, 2015, 38, 117.	1.6	23
17	Comparison study of numerical methods for solving the Allenâ€“Cahn equation. Computational Materials Science, 2016, 111, 131-136.	3.0	22
18	Numerical analysis of energy-minimizing wavelengths of equilibrium states for diblock copolymers. Current Applied Physics, 2014, 14, 1263-1272.	2.4	21

#	ARTICLE	IF	CITATIONS
19	Fourier-Spectral Method for the Phase-Field Equations. Mathematics, 2020, 8, 1385.	2.2	20
20	A practical and efficient numerical method for the Cahnâ€"Hilliard equation in complex domains. Communications in Nonlinear Science and Numerical Simulation, 2019, 73, 217-228.	3.3	19
21	Numerical simulation of the zebra pattern formation on a three-dimensional model. Physica A: Statistical Mechanics and Its Applications, 2017, 475, 106-116.	2.6	18
22	AN ACCURATE AND EFFICIENT NUMERICAL METHOD FOR BLACK-SCHOLES EQUATIONS. Communications of the Korean Mathematical Society, 2009, 24, 617-628.	0.2	18
23	A practical finite difference method for the three-dimensional Blackâ€"Scholes equation. European Journal of Operational Research, 2016, 252, 183-190.	5.7	16
24	Adaptive mesh refinement for simulation of thin film flows. Meccanica, 2014, 49, 239-252.	2.0	15
25	Multicomponent volume reconstruction from slice data using a modified multicomponent Cahnâ€"Hilliard system. Pattern Recognition, 2019, 93, 124-133.	8.1	14
26	Comparison study on the different dynamics between the Allenâ€"Cahn and the Cahnâ€"Hilliard equations. Computers and Mathematics With Applications, 2019, 77, 311-322.	2.7	14
27	Modeling and simulation of the hexagonal pattern formation of honeycombs by the immersed boundary method. Communications in Nonlinear Science and Numerical Simulation, 2018, 62, 61-77.	3.3	13
28	A benchmark problem for the two- and three-dimensional Cahnâ€"Hilliard equations. Communications in Nonlinear Science and Numerical Simulation, 2018, 61, 149-159.	3.3	13
29	Finite Difference Method for the Blackâ€"Scholes Equation Without Boundary Conditions. Computational Economics, 2018, 51, 961-972.	2.6	13
30	Efficient 3D Volume Reconstruction from a Point Cloud Using a Phase-Field Method. Mathematical Problems in Engineering, 2018, 2018, 1-9.	1.1	13
31	A fast and practical adaptive finite difference method for the conservative Allenâ€"Cahn model in two-phase flow system. International Journal of Multiphase Flow, 2021, 137, 103561.	3.4	13
32	Reconstruction of the Time-Dependent Volatility Function Using the Blackâ€"Scholes Model. Discrete Dynamics in Nature and Society, 2018, 2018, 1-9.	0.9	12
33	A Hybrid Monte Carlo and Finite Difference Method for Option Pricing. Computational Economics, 2019, 53, 111-124.	2.6	12
34	Mathematical model and numerical simulation of the cell growth in scaffolds. Biomechanics and Modeling in Mechanobiology, 2012, 11, 677-688.	2.8	11
35	Energy-minimizing wavelengths of equilibrium states for diblock copolymers in the hex-cylinder phase. Current Applied Physics, 2015, 15, 799-804.	2.4	11
36	A practical numerical scheme for the ternary Cahnâ€"Hilliard system with a logarithmic free energy. Physica A: Statistical Mechanics and Its Applications, 2016, 442, 510-522.	2.6	9

#	Article	IF	Citations
37	Nonlinear Multigrid Implementation for the Two-Dimensional Cahnâ€“Hilliard Equation. Mathematics, 2020, 8, 97.	2.2	9
38	An efficient numerical method for evolving microstructures with strong elastic inhomogeneity. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 045007.	2.0	8
39	A multigrid solution for the Cahnâ€“Hilliard equation on nonuniform grids. Applied Mathematics and Computation, 2017, 293, 320-333.	2.2	8
40	Phase-field model and its splitting numerical scheme for tissue growth. Applied Numerical Mathematics, 2017, 117, 22-35.	2.1	7
41	A Crankâ€“Nicolson scheme for the Landauâ€“Lifshitz equation without damping. Journal of Computational and Applied Mathematics, 2010, 234, 613-623.	2.0	6
42	Accuracy, Robustness, and Efficiency of the Linear Boundary Condition for the Black-Scholes Equations. Discrete Dynamics in Nature and Society, 2015, 2015, 1-10.	0.9	6
43	The daily computed weighted averaging basic reproduction numberR0,k,Ï‰nfor MERS-CoV in South Korea. Physica A: Statistical Mechanics and Its Applications, 2016, 451, 190-197.	2.6	6
44	Finite Difference Method for the Multi-Asset Blackâ€“Scholes Equations. Mathematics, 2020, 8, 391.	2.2	6
45	A practical adaptive grid method for the Allenâ€“Cahn equation. Physica A: Statistical Mechanics and Its Applications, 2021, 573, 125975.	2.6	6
46	ROBUST AND ACCURATE METHOD FOR THE BLACK-SCHOLES EQUATIONS WITH PAYOFF-CONSISTENT EXTRAPOLATION. Communications of the Korean Mathematical Society, 2015, 30, 297-311.	0.2	6
47	An Immersed Boundary Method for a Contractile Elastic Ring in a Three-Dimensional Newtonian Fluid. Journal of Scientific Computing, 2016, 67, 909-925.	2.3	5
48	A conservative finite difference scheme for the N-component Cahnâ€“Hilliard system on curved surfaces in 3D. Journal of Engineering Mathematics, 2019, 119, 149-166.	1.2	5
49	Porous Three-Dimensional Scaffold Generation for 3D Printing. Mathematics, 2020, 8, 946.	2.2	5
50	AN EFFICIENT AND ACCURATE NUMERICAL SCHEME FOR TURING INSTABILITY ON A PREDATORâ€“PREY MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250139.	1.7	4
51	An accurate and robust numerical method for micromagnetics simulations. Current Applied Physics, 2014, 14, 476-483.	2.4	4
52	Practical estimation of a splitting parameter for a spectral method for the ternary Cahnâ€“Hilliard system with a logarithmic free energy. Mathematical Methods in the Applied Sciences, 2017, 40, 1734-1745.	2.3	4
53	An Accurate and Practical Explicit Hybrid Method for the Chanâ€“Vese Image Segmentation Model. Mathematics, 2020, 8, 1173.	2.2	4
54	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

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55	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.	1.6	3
56	Accurate and Efficient Computations of the Greeks for Options Near Expiry Using the Black-Scholes Equations. Discrete Dynamics in Nature and Society, 2016, 2016, 1-12.	0.9	3
57	Verification of Convergence Rates of Numerical Solutions for Parabolic Equations. Mathematical Problems in Engineering, 2019, 2019, 1-10.	1.1	3
58	Mathematical modeling and computer simulation of the three-dimensional pattern formation of honeycombs. Scientific Reports, 2019, 9, 20364.	3.3	3
59	Fast Monte Carlo Simulation for Pricing Equity-Linked Securities. Computational Economics, 2020, 56, 865-882.	2.6	3
60	A simple and explicit numerical method for the phase-field model for diblock copolymer melts. Computational Materials Science, 2022, 205, 111192.	3.0	3
61	A regime-switching model with the volatility smile for two-asset European options. Automatica, 2014, 50, 747-755.	5.0	1
62	Super-Fast Computation for the Three-Asset Equity-Linked Securities Using the Finite Difference Method. Mathematics, 2020, 8, 307.	2.2	1
63	A COMPARISON STUDY OF EXPLICIT AND IMPLICIT NUMERICAL METHODS FOR THE EQUITY-LINKED SECURITIES. Honam Mathematical Journal, 2015, 37, 441-455.	0.1	1
64	Nonuniform Finite Difference Scheme for the Three-Dimensional Time-Fractional Blackâ€"Scholes Equation. Journal of Function Spaces, 2021, 2021, 1-11.	0.9	1
65	A Projection Method for the Conservative Discretizations of Parabolic Partial Differential Equations. Journal of Scientific Computing, 2018, 75, 332-349.	2.3	0
66	Linear Stability Analysis of the Cahnâ€"Hilliard Equation in Spinodal Region. Journal of Function Spaces, 2022, 2022, 1-11.	0.9	0