

# Ai-Jie Cheng

## List of Publications by Year in descending order

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papers

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840776

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docs citations

43  
times ranked

308  
citing authors

#	ARTICLE	IF	CITATIONS
1	Time-fractional Allen-Cahn and Cahn-Hilliard phase-field models and their numerical investigation. Computers and Mathematics With Applications, 2018, 76, 1876-1892.	2.7	72
2	Influence of Different Gate Biases and Gate Lengths on Parasitic Source Access Resistance in AlGaIn/GaN Heterostructure FETs. IEEE Transactions on Electron Devices, 2017, 64, 1038-1044.	3.0	42
3	A Eulerian-Lagrangian control volume method for solute transport with anomalous diffusion. Numerical Methods for Partial Differential Equations, 2015, 31, 253-267.	3.6	31
4	A second-order finite difference scheme for quasilinear time fractional parabolic equation based on new fractional derivative. International Journal of Computer Mathematics, 2018, 95, 396-411.	1.8	20
5	A novel finite difference discrete scheme for the time fractional diffusion-wave equation. Applied Numerical Mathematics, 2018, 134, 17-30.	2.1	19
6	A second order Crank-Nicolson scheme for fractional Cattaneo equation based on new fractional derivative. Applied Mathematics and Computation, 2017, 311, 361-374.	2.2	16
7	An error estimate on a Galerkin method for modeling heat and moisture transfer in fibrous insulation. Numerical Methods for Partial Differential Equations, 2008, 24, 504-517.	3.6	15
8	A fast Galerkin finite element method for a space-time fractional Allen-Cahn equation. Journal of Computational and Applied Mathematics, 2020, 368, 112482.	2.0	15
9	A fast solution technique for finite element discretization of the space-time fractional diffusion equation. Applied Numerical Mathematics, 2017, 119, 146-163.	2.1	13
10	Effect of Different Gate Lengths on Polarization Coulomb Field Scattering Potential in AlGaIn/GaN Heterostructure Field-Effect Transistors. Scientific Reports, 2018, 8, 9036.	3.3	13
11	Visibility Forecast for Airport Operations by LSTM Neural Network. , 2019, , .		12
12	Improved Linearity with Polarization Coulomb Field Scattering in AlGaIn/GaN Heterostructure Field-Effect Transistors. Scientific Reports, 2018, 8, 983.	3.3	11
13	A Fast Finite Difference Method for Three-Dimensional Time-Dependent Space-Fractional Diffusion Equations with Fractional Derivative Boundary Conditions. Journal of Scientific Computing, 2018, 74, 1009-1033.	2.3	9
14	A Parareal Finite Volume Method for Variable-Order Time-Fractional Diffusion Equations. Journal of Scientific Computing, 2020, 85, 1.	2.3	9
15	Effect of Polarization Coulomb Field Scattering on Electrical Properties of the 70-nm Gate-Length AlGaIn/GaN HEMTs. Scientific Reports, 2018, 8, 12850.	3.3	8
16	A fast high order compact difference method for the fractional cable equation. Numerical Methods for Partial Differential Equations, 2018, 34, 2237-2266.	3.6	8
17	A preliminary study on multiscale ELLAM schemes for transient advection-diffusion equations. Numerical Methods for Partial Differential Equations, 2010, 26, 1405-1419.	3.6	7
18	An hp-Galerkin method with fast solution for linear peridynamic models in one dimension. Computers and Mathematics With Applications, 2017, 73, 1546-1565.	2.7	7

#	ARTICLE	IF	CITATIONS
19	A fast finite difference/RBF meshless approach for time fractional convection-diffusion equation with non-smooth solution. <i>Engineering Analysis With Boundary Elements</i> , 2021, 125, 280-289.	3.7	7
20	A preconditioned fast Hermite finite element method for space-fractional diffusion equations. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2017, 22, 3529-3545.	0.9	7
21	A novel AlGaIn/GaN heterostructure field-effect transistor based on open-gate technology. <i>Scientific Reports</i> , 2021, 11, 22431.	3.3	7
22	The influence of the PCF scattering on the electrical properties of the AlGaIn/AlIn/GaN HEMTs after the Si <sub>3</sub> N <sub>4</sub> surface passivation. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	6
23	Two meshless methods for Dirichlet boundary optimal control problem governed by elliptic PDEs. <i>Computers and Mathematics With Applications</i> , 2021, 82, 113-129.	2.7	6
24	Superconvergence for a time- $\epsilon$ discretization procedure for the mixed finite element approximation of miscible displacement in porous media. <i>Numerical Methods for Partial Differential Equations</i> , 2012, 28, 1382-1398.	3.6	5
25	A uniformly optimal-order estimate for finite volume method for advection-diffusion equations. <i>Numerical Methods for Partial Differential Equations</i> , 2014, 30, 17-43.	3.6	5
26	A fast compact finite difference method for quasilinear time fractional parabolic equation without singular kernel. <i>International Journal of Computer Mathematics</i> , 2019, 96, 1444-1460.	1.8	5
27	Two unconditionally stable difference schemes for time distributed-order differential equation based on Caputo's-Fabrizio fractional derivative. <i>Advances in Difference Equations</i> , 2020, 2020, .	3.5	5
28	Theory and application of fractional step characteristic finite difference method in numerical simulation of second order enhanced oil production. <i>Acta Mathematica Scientia</i> , 2015, 35, 1547-1565.	1.0	4
29	A Fast Compact Finite Difference Method for Fractional Cattaneo Equation Based on Caputo's-Fabrizio Derivative. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-17.	1.1	3
30	Convergence analysis of mixed volume element-characteristic mixed volume element for three-dimensional chemical oil-recovery seepage coupled problem. <i>Acta Mathematica Scientia</i> , 2018, 38, 519-545.	1.0	2
31	A Fast Discontinuous Galerkin Method for a Bond-Based Linear Peridynamic Model Discretized on a Locally Refined Composite Mesh. <i>Journal of Scientific Computing</i> , 2018, 76, 913-942.	2.3	2
32	Finite Difference Method on Non-Uniform Meshes for Time Fractional Diffusion Problem. <i>Computational Methods in Applied Mathematics</i> , 2021, 21, 899-911.	0.8	2
33	A fast discontinuous finite element discretization for the space-time fractional diffusion-wave equation. <i>Numerical Methods for Partial Differential Equations</i> , 2017, 33, 2043-2061.	3.6	1
34	Sample Regenerating Particle Filter Combined With Unequal Weight Ensemble Kalman Filter for Nonlinear Systems. <i>IEEE Access</i> , 2021, 9, 109612-109623.	4.2	1
35	A preconditioned fast collocation method for a linear bond-based peridynamic model. <i>Advances in Difference Equations</i> , 2020, 2020, .	3.5	1
36	A Single Source's Cylindrical Soil Domain Model for Studying Simultaneous Controlled Release and Mixing Processes. <i>Vadose Zone Journal</i> , 2003, 2, 739-750.	2.2	0

#	ARTICLE	IF	CITATIONS
37	Numerical method for three-dimensional nonlinear convection-dominated problem of dynamics of fluids in porous media. Applied Mathematics and Mechanics (English Edition), 2006, 27, 683-694.	3.6	0
38	A time-stepping procedure based on convolution for the mixed finite element approximation for porous media flow. Applied Mathematics and Computation, 2012, 218, 5319-5326.	2.2	0
39	Theory and application of numerical simulation method of capillary force enhanced oil production. Applied Mathematics and Mechanics (English Edition), 2015, 36, 379-400.	3.6	0
40	A new method to determine the 2DEG density distribution for $\text{AlGaIn}/\text{AlN}/\text{GaN}$ heterostructure field-effect transistors. Superlattices and Microstructures, 2018, 113, 160-168.	3.1	0
41	A Preconditioned Fast Collocation Method for a Linear Nonlocal Diffusion Model in Convex Domains. IEEE Access, 2020, 8, 182366-182375.	4.2	0
42	A Single Source-Cylindrical Soil Domain Model for Studying Simultaneous Controlled-Release and Mixing Processes. Vadose Zone Journal, 2003, 2, 739-750.	2.2	0
43	Fast collocation method for a two-dimensional variable-coefficient linear nonlocal diffusion model. Advances in Difference Equations, 2020, 2020, .	3.5	0