Ai-Jie Cheng

List of Publications by Year in descending order

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840776 839539 43 396 11 18 citations h-index g-index papers 43 43 43 308 docs citations times ranked citing authors all docs

#	Article	IF	Citations
1	Two meshless methods for Dirichlet boundary optimal control problem governed by elliptic PDEs. Computers and Mathematics With Applications, 2021, 82, 113-129.	2.7	6
2	A fast finite difference/RBF meshless approach for time fractional convection-diffusion equation with non-smooth solution. Engineering Analysis With Boundary Elements, 2021, 125, 280-289.	3.7	7
3	Sample Regenerating Particle Filter Combined With Unequal Weight Ensemble Kalman Filter for Nonlinear Systems. IEEE Access, 2021, 9, 109612-109623.	4.2	1
4	Finite Difference Method on Non-Uniform Meshes for Time Fractional Diffusion Problem. Computational Methods in Applied Mathematics, 2021, 21, 899-911.	0.8	2
5	A novel AlGaN/GaN heterostructure field-effect transistor based on open-gate technology. Scientific Reports, 2021, 11, 22431.	3.3	7
6	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
7	A Parareal Finite Volume Method for Variable-Order Time-Fractional Diffusion Equations. Journal of Scientific Computing, 2020, 85, 1.	2.3	9
8	A Preconditioned Fast Collocation Method for a Linear Nonlocal Diffusion Model in Convex Domains. IEEE Access, 2020, 8, 182366-182375.	4.2	0
9	Two unconditionally stable difference schemes for time distributed-order differential equation based on Caputo–Fabrizio fractional derivative. Advances in Difference Equations, 2020, 2020, .	3.5	5
10	A Fast Compact Finite Difference Method for Fractional Cattaneo Equation Based on Caputo–Fabrizio Derivative. Mathematical Problems in Engineering, 2020, 2020, 1-17.	1,1	3
11	A preconditioned fast collocation method for a linear bond-based peridynamic model. Advances in Difference Equations, 2020, 2020, .	3.5	1
12	Fast collocation method for a two-dimensional variable-coefficient linear nonlocal diffusion model. Advances in Difference Equations, 2020, 2020, .	3.5	0
13	A fast compact finite difference method for quasilinear time fractional parabolic equation without singular kernel. International Journal of Computer Mathematics, 2019, 96, 1444-1460.	1.8	5
14	Visibility Forecast for Airport Operations by LSTM Neural Network. , 2019, , .		12
15	Convergence analysis of mixed volume element-characteristic mixed volume element for three-dimensional chemical oil-recovery seepage coupled problem. Acta Mathematica Scientia, 2018, 38, 519-545.	1.0	2
16	Improved Linearity with Polarization Coulomb Field Scattering in AlGaN/GaN Heterostructure Field-Effect Transistors. Scientific Reports, 2018, 8, 983.	3.3	11
17	A Fast Discontinuous Galerkin Method for a Bond-Based Linear Peridynamic Model Discretized on a Locally Refined Composite Mesh. Journal of Scientific Computing, 2018, 76, 913-942.	2.3	2
18	The influence of the PCF scattering on the electrical properties of the AlGaN/AlN/GaN HEMTs after the Si3N4 surface passivation. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	6

#	Article	IF	Citations
19	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
20	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
21	A new method to determine the 2DEG density distribution forÂpassivated AlGaN/AlN/GaN heterostructure field-effect transistors. Superlattices and Microstructures, 2018, 113, 160-168.	3.1	О
22	Effect of Polarization Coulomb Field Scattering on Electrical Properties of the 70-nm Gate-Length AlGaN/GaN HEMTs. Scientific Reports, 2018, 8, 12850.	3.3	8
23	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
24	A novel finite difference discrete scheme for the time fractional diffusion-wave equation. Applied Numerical Mathematics, 2018, 134, 17-30.	2.1	19
25	Effect of Different Gate Lengths on Polarization Coulomb Field Scattering Potential in AlGaN/GaN Heterostructure Field-Effect Transistors. Scientific Reports, 2018, 8, 9036.	3.3	13
26	A fastâ€high order compact difference method for the fractional cable equation. Numerical Methods for Partial Differential Equations, 2018, 34, 2237-2266.	3.6	8
27	Influence of Different Gate Biases and Gate Lengths on Parasitic Source Access Resistance in AlGaN/GaN Heterostructure FETs. IEEE Transactions on Electron Devices, 2017, 64, 1038-1044.	3.0	42
28	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
29	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
30	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
31	A fast discontinuous finite element discretization for the spaceâ€time fractional diffusionâ€wave equation. Numerical Methods for Partial Differential Equations, 2017, 33, 2043-2061.	3.6	1
32	A preconditioned fast Hermite finite element method for space-fractional diffusion equations. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 3529-3545.	0.9	7
33	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
34	Theory and application of fractional step characteristic finite difference method in numerical simulation of second order enhanced oil production. Acta Mathematica Scientia, 2015, 35, 1547-1565.	1.0	4
35	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
36	A uniformly optimal-order estimate for finite volume method for advection-diffusion equations. Numerical Methods for Partial Differential Equations, 2014, 30, 17-43.	3.6	5

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#	Article	lF	CITATIONS
37	Superconvergence for a timeâ€discretization procedure for the mixed finite element approximation of miscible displacement in porous media. Numerical Methods for Partial Differential Equations, 2012, 28, 1382-1398.	3.6	5
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	A preliminary study on multiscale ELLAM schemes for transient advectionâ€diffusion equations. Numerical Methods for Partial Differential Equations, 2010, 26, 1405-1419.	3.6	7
40	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
41	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	O
42	A Single Source–Cylindrical Soil Domain Model for Studying Simultaneous Controlledâ€Release and Mixing Processes. Vadose Zone Journal, 2003, 2, 739-750.	2.2	0
43	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