Aiguo Xiao

List of Publications by Year
in descending order

57 papers	983 citations	567281 15 h-index	454955 30 g-index
57 all docs	57 docs citations	57 times ranked	481 citing authors

#	Article	IF	Citations
1	Asymptotic behavior of solutions to time fractional neutral functional differential equations. Journal of Computational and Applied Mathematics, 2021, 382, 113086.	2.0	4
2	A note on Euler method for the overdamped generalized Langevin equation with fractional noise. Applied Mathematics Letters, 2021, 111, 106669.	2.7	12
3	Fourier spectral method on sparse grids for computing ground state of many-particle fractional SchrÃ¶dinger equations. International Journal of Computer Mathematics, 2021, 98, 1218-1232.	1.8	0
4	Spectral collocation method for a class of fractional diffusion differential equations with nonsmooth solutions. Mathematical Methods in the Applied Sciences, 2021, 44, 2892-2913.	2.3	2
5	Space-Fractional Diffusion Equation with Variable Coefficients: Well-posedness and Fourier Pseudospectral Approximation. Journal of Scientific Computing, 2021, 87, 1.	2.3	0
6	Efficient difference method for time-space fractional diffusion equation with Robin fractional derivative boundary condition. Numerical Algorithms, 2021, 88, 1965-1988.	1.9	4
7	Fourier pseudospectral method for fractional stationary SchrÃ¶dinger equation. Applied Numerical Mathematics, 2021, 165, 137-151.	2.1	2
8	Highly stable multistep Rungeâ€"Kutta methods for Volterra integral equations. Computational and Applied Mathematics, 2020, 39, 1.	2.2	2
9	Finite Difference/Finite Element Method for Tempered Time Fractional Advectionâ€"Dispersion Equation with Fast Evaluation of Caputo Derivative. Journal of Scientific Computing, 2020, 83, 1.	2.3	13
10	LÃ©vy-driven stochastic Volterra integral equations with doubly singular kernels: existence, uniqueness, and a fast EM method. Advances in Computational Mathematics, 2020, 46, 1.	1.6	17
11	A Posteriori Error Estimates for Fully Discrete Finite Element Method for Generalized Diffusion Equation with Delay. Journal of Scientific Computing, 2020, 84, 13.	2.3	5
12	An h-p version of the continuous Petrov-Galerkin finite element method for Riemann-Liouville fractional differential equation with novel test basis functions. Numerical Algorithms, 2019, 81, 529-545.	1.9	16
13	An Efficient Algorithm for Options Under Mertonâ€™s Jump-Diffusion Model on Nonuniform Grids. Computational Economics, 2019, 53, 1565-1591.	2.6	2
14	Conservative linearly-implicit difference scheme for a class of modified Zakharov systems with high-order space fractional quantum correction. Applied Numerical Mathematics, 2019, 146, 379-399.	2.1	10
15	Conservative Fourier spectral method and numerical investigation of space fractional Kleinâ€"Gordonâ€"SchrÃ¶dinger equations. Applied Mathematics and Computation, 2019, 350, 348-365.	2.2	27
16	Numerical solutions of SDEs with Markovian switching and jumps under non-Lipschitz conditions. Journal of Computational and Applied Mathematics, 2019, 360, 41-54.	2.0	6
17	Error estimate of Fourier pseudo-spectral method for multidimensional nonlinear complex fractional Ginzburgâ€"Landau equations. Applied Mathematics Letters, 2019, 93, 40-45.	2.7	24
18	Well-posedness and EM approximations for non-Lipschitz stochastic fractional integro-differential equations. Journal of Computational and Applied Mathematics, 2019, 356, 377-390.	2.0	20

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19	An IMEXâ€BDF2 compact scheme for pricing options under regimeâ€switching jumpâ€diffusion models. Mathematical Methods in the Applied Sciences, 2019, 42, 2646-2663.	2.3	19
20	New explicit stabilized stochastic Runge-Kutta methods with weak second order for stiff ItÃ´ stochastic differential equations. Numerical Algorithms, 2019, 82, 593-604.	1.9	3
21	Asymptotically optimal approximation of some stochastic integrals and its applications to the strong second-order methods. Advances in Computational Mathematics, 2019, 45, 813-846.	1.6	5
22	Spaceâ€"time finite element method for the multi-term timeâ€"space fractional diffusion equation on a two-dimensional domain. Computers and Mathematics With Applications, 2019, 78, 1367-1379.	2.7	28
23	Fourier pseudospectral method on generalized sparse grids for the space-fractional SchrÃ¶dinger equation. Computers and Mathematics With Applications, 2018, 75, 4241-4255.	2.7	21
24	Implicitâ€"explicit multistep finite-element methods for nonlinear convection-diffusion-reaction equations with time delay. International Journal of Computer Mathematics, 2018, 95, 2496-2510.	1.8	4
25	An efficient conservative difference scheme for fractional Kleinâ€"Gordonâ€"SchrÃ¶dinger equations. Applied Mathematics and Computation, 2018, 320, 691-709.	2.2	25
26	Efficient weak second-order stochastic Rungeâ€"Kutta methods for ItÃ´ stochastic differential equations. BIT Numerical Mathematics, 2017, 57, 241-260.	2.0	10
27	Finite Difference/Finite Element Methods for Distributed-Order Time Fractional Diffusion Equations. Journal of Scientific Computing, 2017, 72, 422-441.	2.3	72
28	Strong convergence of the split-step theta method for neutral stochastic delay differential equations. Applied Numerical Mathematics, 2017, 120, 215-232.	2.1	12
29	Convergence of Variational Iteration Method for Fractional Delay Integrodifferential-Algebraic Equations. Mathematical Problems in Engineering, 2017, 2017, 1-10.	1.1	2
30	Modeling Anomalous Diffusion by a Subordinated Integrated Brownian Motion. Advances in Mathematical Physics, 2017, 2017, 1-7.	0.8	1
31	Implicitâ€"explicit time discretization coupled with finite element methods for delayed predatorâ€"prey competition reactionâ€"diffusion system. Computers and Mathematics With Applications, 2016, 71, 2106-2123.	2.7	8
32	Exact and numerical stability analysis of reaction-diffusion equations with distributed delays. Frontiers of Mathematics in China, 2016, 11, 189-205.	0.7	13
33	The asymptotic behaviour of theÎ¸-methods with constant stepsize for the generalized pantograph equation. International Journal of Computer Mathematics, 2016, 93, 1484-1504.	1.8	3
34	High strong order stochastic Runge-Kutta methods for Stratonovich stochastic differential equations with scalar noise. Numerical Algorithms, 2016, 72, 259-296.	1.9	10
35	Stability and convergence analysis of implicitâ€"explicit one-leg methods for stiff delay differential equations. International Journal of Computer Mathematics, 2016, 93, 1964-1983.	1.8	9
36	Nonlinear Stability and <i>B</i>-convergence of Additive Runge-Kutta Methods for Nonlinear Stiff Problems. Advances in Applied Mathematics and Mechanics, 2015, 7, 472-495.	1.2	2

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37	Dissipativity and contractivity for fractional-order systems. Nonlinear Dynamics, 2015, 80, 287-294.	5.2	27
38	Maximum-norm error analysis of a difference scheme for the space fractional CNLS. Applied Mathematics and Computation, 2015, 257, 241-251.	2.2	73
39	A Directed Continuous Time Random Walk Model with Jump Length Depending on Waiting Time. Scientific World Journal, The, 2014, 2014, 1-4.	2.1	3
40	Sinc-Chebyshev Collocation Method for a Class of Fractional Diffusion-Wave Equations. Scientific World Journal, The, 2014, 2014, 1-7.	2.1	8
41	Two classes of implicitâ€"explicit multistep methods for nonlinear stiff initial-value problems. Applied Mathematics and Computation, 2014, 247, 47-60.	2.2	10
42	A linearly implicit conservative difference scheme for the space fractional coupled nonlinear SchrÃ¶dinger equations. Journal of Computational Physics, 2014, 272, 644-655.	3.8	119
43	Generating Function Methods for Coefficient-Varying Generalized Hamiltonian Systems. Advances in Applied Mathematics and Mechanics, 2014, 6, 87-106.	1.2	0
44	Spaceâ€"time fractional diffusion equations and asymptotic behaviors of a coupled continuous time random walk model. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 5801-5807.	2.6	9
45	Crankâ€"Nicolson difference scheme for the coupled nonlinear SchrÃ¶dinger equations with the Riesz space fractional derivative. Journal of Computational Physics, 2013, 242, 670-681.	3.8	163
46	Fractional variational integrators for fractional Eulerâ€"Lagrange equations with holonomic constraints. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 905-914.	3.3	5
47	Convergence of Variational Iteration Method for Second-Order Delay Differential Equations. Journal of Applied Mathematics, 2013, 2013, 1-9.	0.9	7
48	Convergence of Linear Multistep Methods and One-Leg Methods for Index-2 Differential-Algebraic Equations with a Variable Delay. Advances in Applied Mathematics and Mechanics, 2012, 4, 636-646.	1.2	5
49	Dependence Analysis of the Solutions on the Parameters of Fractional Delay Differential Equations. Advances in Applied Mathematics and Mechanics, 2011, 3, 586-597.	1.2	3
50	Weighted finite difference methods for a class of space fractional partial differential equations with variable coefficients. Journal of Computational and Applied Mathematics, 2010, 233, 1905-1914.	2.0	44
51	Convergence of the variational iteration method for solving multi-order fractional differential equations. Computers and Mathematics With Applications, 2010, 60, 2871-2879.	2.7	78
52	Variational Iteration Method for Delay Differential-Algebraic Equations. Mathematical and Computational Applications, 2010, 15, 834-839.	1.3	2
53	Parallel two-step ROW-methods for stiff delay differential equations. Applied Numerical Mathematics, 2009, 59, 1768-1778.	2.1	7
54	Convergence of parallel multistep hybrid methods for singular perturbation problems. Applied Mathematics and Computation, 2009, 215, 2139-2148.	2.2	1

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55	Characterizations and construction of Poisson/symplectic and symmetric multi-revolution implicit Rungeâ€“Kutta methods of high order. Applied Numerical Mathematics, 2008, 58, 915-930.	2.1	2
56	Convergence results of two-step W-methods for two-parameter singular perturbation problems. Applied Mathematics and Computation, 2007, 189, 669-681.	2.2	3
57	A sharp error estimate of Eulerâ€Maruyama method for stochastic Volterra integral equations. Mathematical Methods in the Applied Sciences, 0, , .	2.3	1