Fanhai Zeng

List of Publications by Year
in descending order

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37 papers	2,398 citations	331538 21 h-index	330025 37 g-index
38 all docs	38 docs citations	38 times ranked	1032 citing authors

#	Article	IF	Citations
1	Convergence analysis of the time-stepping numerical methods for time-fractional nonlinear subdiffusion equations. Fractional Calculus and Applied Analysis, 2022, 25, 453-487.	1.2	12
2	Error estimate of the fast L1 method for time-fractional subdiffusion equations. Applied Mathematics Letters, 2022, 133, 108288.	1.5	4
3	Analysis of a backward Euler-type scheme for Maxwellâ€™s equations in a Havriliakâ€“Negami dispersive medium. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 479-506.	0.8	2
4	A class of efficient time-stepping methods for multi-term time-fractional reaction-diffusion-wave equations. Applied Numerical Mathematics, 2021, 165, 56-82.	1.2	21
5	An H1 convergence of the spectral method for the time-fractional non-linear diffusion equations. Advances in Computational Mathematics, 2021, 47, 1.	0.8	5
6	A stabilized semi-implicit Fourier spectral method for nonlinear space-fractional reaction-diffusion equations. Journal of Computational Physics, 2020, 405, 109141.	1.9	38
7	Efficient Multistep Methods for Tempered Fractional Calculus: Algorithms and Simulations. SIAM Journal of Scientific Computing, 2019, 41, A2510-A2535.	1.3	36
8	Numerical Analysis of Linear and Nonlinear Time-Fractional Subdiffusion Equations. Communications on Applied Mathematics and Computation, 2019, 1, 621-637.	0.7	10
9	A discrete least squares collocation method for two-dimensional nonlinear time-dependent partial differential equations. Journal of Computational Physics, 2019, 394, 177-199.	1.9	7
10	An alternating direction implicit spectral method for solving two dimensional multi-term time fractional mixed diffusion and diffusion-wave equations. Applied Numerical Mathematics, 2019, 136, 139-151.	1.2	30
11	A Stable Fast Time-Stepping Method for Fractional Integral and Derivative Operators. Journal of Scientific Computing, 2018, 77, 283-307.	1.1	65
12	A Crankâ€“Nicolson ADI Galerkinâ€“Legendre spectral method for the two-dimensional Riesz space distributed-order advectionâ€“diffusion equation. Computers and Mathematics With Applications, 2018, 76, 2460-2476.	1.4	60
13	A New Class of Semi-Implicit Methods with Linear Complexity for Nonlinear Fractional Differential Equations. SIAM Journal of Scientific Computing, 2018, 40, A2986-A3011.	1.3	18
14	On the Analysis of Mixed-Index Time Fractional Differential Equation Systems. Axioms, 2018, 7, 25.	0.9	3
15	A tunable finite difference method for fractional differential equations with non-smooth solutions. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 193-214.	3.4	29
16	A Generalized Spectral Collocation Method with Tunable Accuracy for Fractional Differential Equations with End-Point Singularities. SIAM Journal of Scientific Computing, 2017, 39, A360-A383.	1.3	56
17	Efficient two-dimensional simulations of the fractional Szabo equation with different time-stepping schemes. Computers and Mathematics With Applications, 2017, 73, 1286-1297.	1.4	3
18	Second-order numerical methods for multi-term fractional differential equations: Smooth and non-smooth solutions. Computer Methods in Applied Mechanics and Engineering, 2017, 327, 478-502.	3.4	97

#	Article	IF	Citations
19	A new Crankâ€“Nicolson finite element method for the time-fractional subdiffusion equation. Applied Numerical Mathematics, 2017, 121, 82-95.	1.2	29
20	Implicit-Explicit Difference Schemes for Nonlinear Fractional Differential Equations with Nonsmooth Solutions. SIAM Journal of Scientific Computing, 2016, 38, A3070-A3093.	1.3	63
21	Fast difference schemes for solving high-dimensional time-fractional subdiffusion equations. Journal of Computational Physics, 2016, 307, 15-33.	1.9	58
22	A Generalized Spectral Collocation Method with Tunable Accuracy for Variable-Order Fractional Differential Equations. SIAM Journal of Scientific Computing, 2015, 37, A2710-A2732.	1.3	110
23	Numerical Algorithms for Time-Fractional Subdiffusion Equation with Second-Order Accuracy. SIAM Journal of Scientific Computing, 2015, 37, A55-A78.	1.3	173
24	Optimal Error Estimates of Spectral Petrov--Galerkin and Collocation Methods for Initial Value Problems of Fractional Differential Equations. SIAM Journal on Numerical Analysis, 2015, 53, 2074-2096.	1.1	38
25	Second-Order Stable Finite Difference Schemes for the Time-Fractional Diffusion-Wave Equation. Journal of Scientific Computing, 2015, 65, 411-430.	1.1	56
26	Finite difference method for time-space-fractional SchrÃ¶dinger equation. International Journal of Computer Mathematics, 2015, 92, 1439-1451.	1.0	43
27	A Crank--Nicolson ADI Spectral Method for a Two-Dimensional Riesz Space Fractional Nonlinear Reaction-Diffusion Equation. SIAM Journal on Numerical Analysis, 2014, 52, 2599-2622.	1.1	298
28	Energy-conserved splitting spectral methods for two dimensional Maxwellâ€™s equations. Journal of Computational and Applied Mathematics, 2014, 265, 301-321.	1.1	13
29	The Finite Difference Methods for Fractional Ordinary Differential Equations. Numerical Functional Analysis and Optimization, 2013, 34, 149-179.	0.6	158
30	The Use of Finite Difference/Element Approaches for Solving the Time-Fractional Subdiffusion Equation. SIAM Journal of Scientific Computing, 2013, 35, A2976-A3000.	1.3	245
31	Numerical approach to the Caputo derivative of the unknown function. Open Physics, 2013, 11, .	0.8	3
32	Gronwall inequalities. Interdisciplinary Mathematical Sciences, 2013, , 1-22.	0.4	5
33	Finite element methods for fractional differential equations. Interdisciplinary Mathematical Sciences, 2013, , 49-68.	0.4	3
34	Equivalent system for a multiple-rational-order fractional differential system. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120156.	1.6	20
35	FINITE DIFFERENCE METHODS FOR FRACTIONAL DIFFERENTIAL EQUATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1230014.	0.7	152
36	Spectral approximations to the fractional integral and derivative. Fractional Calculus and Applied Analysis, 2012, 15, 383-406.	1.2	129

#	Article	IF	Citations
37	Numerical simulation of the fractional Langevin equation. Thermal Science, 2012, 16, 357-363.	0.5	5