Fanhai Zeng

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9339365/publications.pdf

Version: 2024-02-01

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	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
2	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
3	Numerical Algorithms for Time-Fractional Subdiffusion Equation with Second-Order Accuracy. SIAM Journal of Scientific Computing, 2015, 37, A55-A78.	1.3	173
4	The Finite Difference Methods for Fractional Ordinary Differential Equations. Numerical Functional Analysis and Optimization, 2013, 34, 149-179.	0.6	158
5	FINITE DIFFERENCE METHODS FOR FRACTIONAL DIFFERENTIAL EQUATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1230014.	0.7	152
6	Spectral approximations to the fractional integral and derivative. Fractional Calculus and Applied Analysis, 2012, 15, 383-406.	1.2	129
7	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
8	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
9	A Stable Fast Time-Stepping Method for Fractional Integral and Derivative Operators. Journal of Scientific Computing, 2018, 77, 283-307.	1.1	65
10	Implicit-Explicit Difference Schemes for Nonlinear Fractional Differential Equations with Nonsmooth Solutions. SIAM Journal of Scientific Computing, 2016, 38, A3070-A3093.	1.3	63
11	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
12	Fast difference schemes for solving high-dimensional time-fractional subdiffusion equations. Journal of Computational Physics, 2016, 307, 15-33.	1.9	58
13	Second-Order Stable Finite Difference Schemes for the Time-Fractional Diffusion-Wave Equation. Journal of Scientific Computing, 2015, 65, 411-430.	1.1	56
14	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
15	Finite difference method for time-space-fractional SchrÃ¶dinger equation. International Journal of Computer Mathematics, 2015, 92, 1439-1451.	1.0	43
16	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
17	A stabilized semi-implicit Fourier spectral method for nonlinear space-fractional reaction-diffusion equations. Journal of Computational Physics, 2020, 405, 109141.	1.9	38
18	Efficient Multistep Methods for Tempered Fractional Calculus: Algorithms and Simulations. SIAM Journal of Scientific Computing, 2019, 41, A2510-A2535.	1.3	36

#	Article	IF	Citations
19	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
20	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
21	A new Crankâ€“Nicolson finite element method for the time-fractional subdiffusion equation. Applied Numerical Mathematics, 2017, 121, 82-95.	1.2	29
22	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
23	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
24	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
25	Energy-conserved splitting spectral methods for two dimensional Maxwellâ€™s equations. Journal of Computational and Applied Mathematics, 2014, 265, 301-321.	1.1	13
26	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
27	Numerical Analysis of Linear and Nonlinear Time-Fractional Subdiffusion Equations. Communications on Applied Mathematics and Computation, 2019, 1, 621-637.	0.7	10
28	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
29	Gronwall inequalities. Interdisciplinary Mathematical Sciences, 2013, , 1-22.	0.4	5
30	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
31	Numerical simulation of the fractional Langevin equation. Thermal Science, 2012, 16, 357-363.	0.5	5
32	Error estimate of the fast L1 method for time-fractional subdiffusion equations. Applied Mathematics Letters, 2022, 133, 108288.	1.5	4
33	Numerical approach to the Caputo derivative of the unknown function. Open Physics, 2013, 11, .	0.8	3
34	Finite element methods for fractional differential equations. Interdisciplinary Mathematical Sciences, 2013, , 49-68.	0.4	3
35	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
36	On the Analysis of Mixed-Index Time Fractional Differential Equation Systems. Axioms, 2018, 7, 25.	0.9	3

#	Article	IF	Citations
37	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