

Zhi Zhou

List of Publications by Year in descending order

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47
papers

2,227
citations

304368

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223531

46
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47
all docs

47
docs citations

47
times ranked

765
citing authors

#	ARTICLE	IF	CITATIONS
1	Error Estimates for a Semidiscrete Finite Element Method for Fractional Order Parabolic Equations. SIAM Journal on Numerical Analysis, 2013, 51, 445-466.	1.1	230
2	The Galerkin finite element method for a multi-term time-fractional diffusion equation. Journal of Computational Physics, 2015, 281, 825-843.	1.9	214
3	Two Fully Discrete Schemes for Fractional Diffusion and Diffusion-Wave Equations with Nonsmooth Data. SIAM Journal of Scientific Computing, 2016, 38, A146-A170.	1.3	186
4	Numerical Analysis of Nonlinear Subdiffusion Equations. SIAM Journal on Numerical Analysis, 2018, 56, 1-23.	1.1	164
5	Correction of High-Order BDF Convolution Quadrature for Fractional Evolution Equations. SIAM Journal of Scientific Computing, 2017, 39, A3129-A3152.	1.3	130
6	An analysis of the Rayleigh–Stokes problem for a generalized second-grade fluid. Numerische Mathematik, 2015, 131, 1-31.	0.9	110
7	Numerical methods for time-fractional evolution equations with nonsmooth data: A concise overview. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 332-358.	3.4	109
8	Numerical methods for nonlocal and fractional models. Acta Numerica, 2020, 29, 1-124.	6.3	101
9	Error analysis of semidiscrete finite element methods for inhomogeneous time-fractional diffusion. IMA Journal of Numerical Analysis, 2015, 35, 561-582.	1.5	99
10	Error Analysis of a Finite Element Method for the Space-Fractional Parabolic Equation. SIAM Journal on Numerical Analysis, 2014, 52, 2272-2294.	1.1	73
11	Subdiffusion with a time-dependent coefficient: Analysis and numerical solution. Mathematics of Computation, 2019, 88, 2157-2186.	1.1	65
12	An analysis of the Crank–Nicolson method for subdiffusion. IMA Journal of Numerical Analysis, 2018, 38, 518-541.	1.5	57
13	Discrete maximal regularity of time-stepping schemes for fractional evolution equations. Numerische Mathematik, 2018, 138, 101-131.	0.9	57
14	An analysis of the L1 scheme for the subdiffusion equation with nonsmooth data. IMA Journal of Numerical Analysis, 0, , dru063.	1.5	52
15	Time-Fractional Allen–Cahn Equations: Analysis and Numerical Methods. Journal of Scientific Computing, 2020, 85, 1.	1.1	49
16	Error estimates for approximations of distributed order time fractional diffusion with nonsmooth data. Fractional Calculus and Applied Analysis, 2016, 19, 69-93.	1.2	47
17	A Petrov–Galerkin Finite Element Method for Fractional Convection-Diffusion Equations. SIAM Journal on Numerical Analysis, 2016, 54, 481-503.	1.1	45
18	Arbitrarily High-Order Exponential Cut-Off Methods for Preserving Maximum Principle of Parabolic Equations. SIAM Journal of Scientific Computing, 2020, 42, A3957-A3978.	1.3	39

#	ARTICLE	IF	CITATIONS
19	Numerical approximation of stochastic time-fractional diffusion. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 1245-1268.	0.8	28
20	A simple finite element method for boundary value problems with a Riemann-Liouville derivative. <i>Journal of Computational and Applied Mathematics</i> , 2016, 293, 94-111.	1.1	25
21	Visualizing ion diffusion in battery systems by fluorescence microscopy: A case study on the dissolution of LiMn ₂ O ₄ . <i>Nano Energy</i> , 2018, 45, 68-74.	8.2	25
22	Recovering the potential term in a fractional diffusion equation. <i>IMA Journal of Applied Mathematics</i> , 2017, 82, 579-600.	0.8	24
23	A Spectrally Accurate Approximation to Subdiffusion Equations Using the Log Orthogonal Functions. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, A849-A877.	1.3	24
24	A Finite Element Method with Singularity Reconstruction for Fractional Boundary Value Problems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2015, 49, 1261-1283.	0.8	23
25	Analysis of a nonlocal-in-time parabolic equation. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2017, 22, 339-368.	0.5	22
26	Pointwise-in-time error estimates for an optimal control problem with subdiffusion constraint. <i>IMA Journal of Numerical Analysis</i> , 2020, 40, 377-404.	1.5	20
27	An analysis of galerkin proper orthogonal decomposition for subdiffusion. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2017, 51, 89-113.	0.8	18
28	Subdiffusion with time-dependent coefficients: improved regularity and second-order time stepping. <i>Numerische Mathematik</i> , 2020, 145, 883-913.	0.9	18
29	Arbitrarily High-Order Maximum Bound Preserving Schemes with Cut-off Postprocessing for Allen-Cahn Equations. <i>Journal of Scientific Computing</i> , 2022, 90, .	1.1	17
30	Space-Time Petrov-Galerkin FEM for Fractional Diffusion Problems. <i>Computational Methods in Applied Mathematics</i> , 2018, 18, 1-20.	0.4	15
31	On nonnegativity preservation in finite element methods for subdiffusion equations. <i>Mathematics of Computation</i> , 2016, 86, 2239-2260.	1.1	14
32	Asymptotically compatible schemes for space-time nonlocal diffusion equations. <i>Chaos, Solitons and Fractals</i> , 2017, 102, 361-371.	2.5	14
33	High-order Time Stepping Schemes for Semilinear Subdiffusion Equations. <i>SIAM Journal on Numerical Analysis</i> , 2020, 58, 3226-3250.	1.1	14
34	Stochastic representation of solution to nonlocal-in-time diffusion. <i>Stochastic Processes and Their Applications</i> , 2020, 130, 2058-2085.	0.4	13
35	Reconstruction of a Space-Time-Dependent Source in Subdiffusion Models via a Perturbation Approach. <i>SIAM Journal on Mathematical Analysis</i> , 2021, 53, 4445-4473.	0.9	12
36	An inverse potential problem for subdiffusion: stability and reconstruction*. <i>Inverse Problems</i> , 2021, 37, 015006.	1.0	12

#	ARTICLE	IF	CITATIONS
37	The Energy Technique for the Six-Step BDF Method. SIAM Journal on Numerical Analysis, 2021, 59, 2449-2472.	1.1	10
38	Error Analysis of Finite Element Approximations of Diffusion Coefficient Identification for Elliptic and Parabolic Problems. SIAM Journal on Numerical Analysis, 2021, 59, 119-142.	1.1	9
39	Long-time Accurate Symmetrized Implicit-explicit BDF Methods for a Class of Parabolic Equations with Non-self-adjoint Operators. SIAM Journal on Numerical Analysis, 2020, 58, 189-210.	1.1	8
40	Recovering the potential and order in one-dimensional time-fractional diffusion with unknown initial condition and source $\langle \sup \rangle$. Inverse Problems, 2021, 37, 105009.	1.0	8
41	Numerical analysis of backward subdiffusion problems. Inverse Problems, 2020, 36, 105006.	1.0	7
42	Numerical Estimation of a Diffusion Coefficient in Subdiffusion. SIAM Journal on Control and Optimization, 2021, 59, 1466-1496.	1.1	6
43	Incomplete iterative solution of subdiffusion. Numerische Mathematik, 2020, 145, 693-725.	0.9	4
44	A Parallel-in-Time Algorithm for High-Order BDF Methods for Diffusion and Subdiffusion Equations. SIAM Journal of Scientific Computing, 2021, 43, A3627-A3656.	1.3	4
45	Galerkin FEM for Fractional Order Parabolic Equations with Initial Data in $H^{\hat{\alpha}}$. Lecture Notes in Computer Science, 2013, , 24-37.	1.0	3
46	Backward Difference Formulae: The Energy Technique for Subdiffusion Equation. Journal of Scientific Computing, 2021, 87, 1.	1.1	2
47	Multigrid Methods for Time-Fractional Evolution Equations: A Numerical Study. Communications on Applied Mathematics and Computation, 2020, 2, 163-177.	0.7	1