Hong-lin Liao

List of Publications by Year
in descending order

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35 papers	1,811 citations	361045 20 h-index	360668 35 g-index
35 all docs	35 docs citations	35 times ranked	532 citing authors

#	Article	IF	Citations
1	Sharp Error Estimate of the Nonuniform L1 Formula for Linear Reaction-Subdiffusion Equations. SIAM Journal on Numerical Analysis, 2018, 56, 1112-1133.	1.1	278
2	Finite difference methods for the time fractional diffusion equation on non-uniform meshes. Journal of Computational Physics, 2014, 265, 195-210.	1.9	212
3	A Discrete GrÃ¶nwall Inequality with Applications to Numerical Schemes for Subdiffusion Problems. SIAM Journal on Numerical Analysis, 2019, 57, 218-237.	1.1	200
4	Maximum norm error bounds of ADI and compact ADI methods for solving parabolic equations. Numerical Methods for Partial Differential Equations, 2010, 26, 37-60.	2.0	155
5	Analysis of L1-Galerkin FEMs for Time-Fractional Nonlinear Parabolic Problems. Communications in Computational Physics, 2018, 24, .	0.7	101
6	A second-order and nonuniform time-stepping maximum-principle preserving scheme for time-fractional Allen-Cahn equations. Journal of Computational Physics, 2020, 414, 109473.	1.9	89
7	Error Estimate of Fourth-Order Compact Scheme for Linear SchrÃ¶dinger Equations. SIAM Journal on Numerical Analysis, 2010, 47, 4381-4401.	1.1	82
8	Unconditional Convergence of a Fast Two-Level Linearized Algorithm for Semilinear Subdiffusion Equations. Journal of Scientific Computing, 2019, 80, 1-25.	1.1	71
9	On Energy Stable, Maximum-Principle Preserving, Second-Order BDF Scheme with Variable Steps for the Allen--Cahn Equation. SIAM Journal on Numerical Analysis, 2020, 58, 2294-2314.	1.1	54
10	Unconditional Stability of Corrected Explicitâ€Implicit Domain Decomposition Algorithms for Parallel Approximation of Heat Equations. SIAM Journal on Numerical Analysis, 2006, 44, 1584-1611.	1.1	52
11	Analysis of adaptive BDF2 scheme for diffusion equations. Mathematics of Computation, 2020, 90, 1207-1226.	1.1	50
12	Adaptive Second-Order Crank--Nicolson Time-Stepping Schemes for Time-Fractional Molecular Beam Epitaxial Growth Models. SIAM Journal of Scientific Computing, 2020, 42, B738-B760.	1.3	45
13	An adaptive BDF2 implicit time-stepping method for the phase field crystal model. IMA Journal of Numerical Analysis, 2022, 42, 649-679.	1.5	40
14	An Energy Stable and Maximum Bound Preserving Scheme with Variable Time Steps for Time Fractional Allen--Cahn Equation. SIAM Journal of Scientific Computing, 2021, 43, A3503-A3526.	1.3	39
15	Sharp <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2749" altimg="si4.svg"><mml:msup><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></ error estimates of two time-stepping schemes for reactionâ€“subdiffusion problems. Journal of Computational and Applied Mathematics, 2021, 389, 113352.	1.1	35
16	Maximum norm error estimates of efficient difference schemes for second-order wave equations. Journal of Computational and Applied Mathematics, 2011, 235, 2217-2233.	1.1	27
17	Simple maximum principle preserving time-stepping methods for time-fractional Allen-Cahn equation. Advances in Computational Mathematics, 2020, 46, 1.	0.8	27
18	Analysis of the second-order BDF scheme with variable steps for the molecular beam epitaxial model without slope selection. Science China Mathematics, 2021, 64, 887-902.	0.8	27

#	Article	IF	Citations
19	Stability and Convergence of Modified Du Fortâ€“Frankel Schemes for Solving Time-Fractional Subdiffusion Equations. Journal of Scientific Computing, 2014, 61, 629-648.	1.1	24
20	Adaptive linear second-order energy stable schemes for time-fractional Allen-Cahn equation with volume constraint. Communications in Nonlinear Science and Numerical Simulation, 2020, 90, 105366.	1.7	22
21	A Weighted ADI Scheme for Subdiffusion Equations. Journal of Scientific Computing, 2016, 69, 1144-1164.	1.1	21
22	Stability of fully discrete schemes with interpolation-type fractional formulas for distributed-order subdiffusion equations. Numerical Algorithms, 2017, 75, 845-878.	1.1	21
23	Second-order BDF time approximation for Riesz space-fractional diffusion equations. International Journal of Computer Mathematics, 2018, 95, 144-158.	1.0	21
24	A second-order fast compact scheme with unequal time-steps for subdiffusion problems. Numerical Algorithms, 2021, 86, 1011-1039.	1.1	18
25	Corrected explicit-implicit domain decomposition algorithms for two-dimensional semilinear parabolic equations. Science in China Series A: Mathematics, 2009, 52, 2362-2388.	0.5	16
26	Convergence of compact ADI method for solving linear SchrÃ¶dinger equations. Numerical Methods for Partial Differential Equations, 2012, 28, 1598-1619.	2.0	16
27	A two-level compact ADI method for solving second-order wave equations. International Journal of Computer Mathematics, 2013, 90, 1471-1488.	1.0	14
28	Mesh-Robustness of an Energy Stable BDF2 Scheme with Variable Steps for the Cahnâ€“Hilliard Model. Journal of Scientific Computing, 2022, 92, .	1.1	10
29	A center Box method for radially symmetric solution of fractional subdiffusion equation. Applied Mathematics and Computation, 2015, 257, 467-486.	1.4	8
30	Compatible L2 norm convergence of variable-step L1 scheme for the time-fractional MBE model with slope selection. Journal of Computational Physics, 2022, 467, 111467.	1.9	8
31	Superconvergence Error Estimate of a Finite Element Method on Nonuniform Time Meshes for Reactionâ€“Subdiffusion Equations. Journal of Scientific Computing, 2020, 84, 1.	1.1	7
32	Linearly localized difference schemes for the nonlinear Maxwell model of a magnetic field into a substance. Applied Mathematics and Computation, 2014, 233, 608-622.	1.4	6
33	Numerical study of fourth-order linearized compact schemes for generalized NLS equations. Computer Physics Communications, 2014, 185, 2240-2249.	3.0	6
34	Energy Stability of BDF Methods up to Fifth-Order for the Molecular Beam Epitaxial Model Without Slope Selection. Journal of Scientific Computing, 2022, 91, 1.	1.1	5
35	Sharp H1-norm error estimate of a cosine pseudo-spectral scheme for 2D reaction-subdiffusion equations. Numerical Algorithms, 2020, 83, 1223-1248.	1.1	4