Xian-Ming Gu

List of Publications by Year
in descending order

70	1,067	471509 17	477307 29
papers	citations	h-index	g-index

71	71	71	534
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A fast linearized conservative finite element method for the strongly coupled nonlinear fractional SchrÃ¶dinger equations. Journal of Computational Physics, 2018, 358, 256-282.	3.8	155
2	Fast Iterative Method with a Second-Order Implicit Difference Scheme for Time-Space Fractional Convectionâ€“Diffusion Equation. Journal of Scientific Computing, 2017, 72, 957-985.	2.3	84
3	A parallel-in-time iterative algorithm for Volterra partial integro-differential problems with weakly singular kernel. Journal of Computational Physics, 2020, 417, 109576.	3.8	77
4	Strang-type preconditioners for solving fractional diffusion equations by boundary value methods. Journal of Computational and Applied Mathematics, 2015, 277, 73-86.	2.0	38
5	An implicit difference scheme for time-fractional diffusion equations with a time-invariant type variable order. Applied Mathematics Letters, 2021, 120, 107270.	2.7	37
6	Barycentric rational collocation methods for a class of nonlinear parabolic partial differential equations. Applied Mathematics Letters, 2017, 68, 13-19.	2.7	35
7	Quadratic spline collocation method for the time fractional subdiffusion equation. Applied Mathematics and Computation, 2016, 276, 252-265.	2.2	34
8	A Preconditioning Technique for an All-at-once System from Volterra Subdiffusion Equations with Graded Time Steps. Journal of Scientific Computing, 2021, 88, 1.	2.3	32
9	A High-Order Accurate Numerical Scheme for the Caputo Derivative with Applications to Fractional Diffusion Problems. Numerical Functional Analysis and Optimization, 2018, 39, 600-622.	1.4	30
10	The SCBiCG class of algorithms for complex symmetric linear systems with applications in several electromagnetic model problems. Computer Physics Communications, 2015, 191, 52-64.	7.5	24
11	Quasi-Minimal Residual Variants of the COCG and COCR Methods for Complex Symmetric Linear Systems in Electromagnetic Simulations. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2859-2867.	4.6	23
12	A Preconditioning Technique for All-at-Once System from the Nonlinear Tempered Fractional Diffusion Equation. Journal of Scientific Computing, 2020, 83, 1.	2.3	23
13	On <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si43.gif" display="inline" overflow="scroll"><mml:mi>k</mml:mi></mml:math>-step CSCS-based polynomial preconditioners for Toeplitz linear systems with application to fractional diffusion equations. Applied Mathematics Letters, 2015, 42, 53-58.	2.7	22
14	An efficient elimination strategy for solving PageRank problems. Applied Mathematics and Computation, 2017, 298, 111-122.	2.2	21
15	Restarted Hessenberg method for solving shifted nonsymmetric linear systems. Journal of Computational and Applied Mathematics, 2018, 331, 166-177.	2.0	21
16	A variant of the Powerâ€“Arnoldi algorithm for computing PageRank. Journal of Computational and Applied Mathematics, 2021, 381, 113034.	2.0	19
17	A fast implicit difference scheme for solving the generalized timeâ€“space fractional diffusion equations with variable coefficients. Numerical Methods for Partial Differential Equations, 2021, 37, 1136-1162.	3.6	19
18	Non-fragile asynchronous H â^ž control for uncertain stochastic memory systems with Bernoulli distribution. Applied Mathematics and Computation, 2017, 312, 109-128.	2.2	18

#	Article	IF	Citations
19	On the symmetric doubly stochastic inverse eigenvalue problem. Linear Algebra and Its Applications, 2014, 445, 181-205.	0.9	16
20	Fast implicit difference schemes for timeâ€space fractional diffusion equations with the integral fractional Laplacian. Mathematical Methods in the Applied Sciences, 2021, 44, 441-463.	2.3	16
21	A Local Coupling Multitrace Domain Decomposition Method for Electromagnetic Scattering From Multilayered Dielectric Objects. IEEE Transactions on Antennas and Propagation, 2020, 68, 7099-7108.	5.1	15
22	Three-dimensional fractional total variation regularized tensor optimized model for image deblurring. Applied Mathematics and Computation, 2021, 404, 126224.	2.2	15
23	BiCR-type methods for families of shifted linear systems. Computers and Mathematics With Applications, 2014, 68, 746-758.	2.7	12
24	Fast compact implicit integration factor method with non-uniform meshes for the two-dimensional nonlinear Riesz space-fractional reaction-diffusion equation. Applied Numerical Mathematics, 2020, 156, 346-363.	2.1	12
25	On the preserving of the maximum principle and energy stability of high-order implicit-explicit Runge-Kutta schemes for the space-fractional Allen-Cahn equation. Numerical Algorithms, 2021, 88, 1309-1336.	1.9	12
26	Circulant preconditioned iterative methods for peridynamic model simulation. Applied Mathematics and Computation, 2014, 248, 470-479.	2.2	11
27	A hybridized iterative algorithm of the BiCORSTAB and GPBiCOR methods for solving non-Hermitian linear systems. Computers and Mathematics With Applications, 2015, 70, 3019-3031.	2.7	11
28	A limited-memory block bi-diagonal Toeplitz preconditioner for block lower triangular Toeplitz system from timeâ€“space fractional diffusion equation. Journal of Computational and Applied Mathematics, 2019, 362, 99-115.	2.0	11
29	Fast implicit integration factor method for nonlinear space Riesz fractional reactionâ€“diffusion equations. Journal of Computational and Applied Mathematics, 2020, 378, 112935.	2.0	11
30	Efficient preconditioner updates for unsymmetric shifted linear systems. Computers and Mathematics With Applications, 2014, 67, 1643-1655.	2.7	10
31	Block-accelerated aggregation multigrid for Markov chains with application to PageRank problems. Communications in Nonlinear Science and Numerical Simulation, 2018, 59, 472-487.	3.3	10
32	Off-diagonal low-rank preconditioner for difficult PageRank problems. Journal of Computational and Applied Mathematics, 2019, 346, 456-470.	2.0	10
33	A low-rank Lie-Trotter splitting approach for nonlinear fractional complex Ginzburg-Landau equations. Journal of Computational Physics, 2021, 446, 110652.	3.8	10
34	A Lagrange-quadratic spline optimal collocation method for the time tempered fractional diffusion equation. Mathematics and Computers in Simulation, 2021, 182, 1-24.	4.4	9
35	Fast second-order implicit difference schemes for time distributed-order and Riesz space fractional diffusion-wave equations. Computers and Mathematics With Applications, 2021, 94, 136-154.	2.7	9
36	Efficient Preconditioned Iterative Linear Solvers for 3-D Magnetostatic Problems Using Edge Elements. Advances in Applied Mathematics and Mechanics, 2020, 12, 301-318.	1.2	9

#	Article	IF	Citations
37	Fast iterative solvers for numerical simulations of scattering and radiation on thin wires. Journal of Electromagnetic Waves and Applications, 2015, 29, 1281-1296.	1.6	8
38	Circulant preconditioned iterations for fractional diffusion equations based on Hermitian and skew-Hermitian splittings. Applied Mathematics Letters, 2015, 48, 14-22.	2.7	8
39	Well-posedness of the fractional Ginzburgâ€“Landau equation. Applicable Analysis, 2019, 98, 2545-2558.	1.3	8
40	An efficient second-order energy stable BDF scheme for the space fractional Cahnâ€“Hilliard equation. BIT Numerical Mathematics, 2021, 61, 1061-1092.	2.0	8
41	Efficient energy preserving Galerkinâ€“Legendre spectral methods for fractional nonlinear SchrÃ¶dinger equation with wave operator. Applied Numerical Mathematics, 2022, 172, 608-628.	2.1	8
42	Vector Extrapolation Based Landweber Method for Discrete Ill-Posed Problems. Mathematical Problems in Engineering, 2017, 2017, 1-8.	1.1	7
43	The Weighted Arithmetic Meanâ€“Geometric Mean Inequality is Equivalent to the HÃ¶lder Inequality. Symmetry, 2018, 10, 380.	2.2	7
44	Improved delay-probability-dependent results for stochastic neural networks with randomly occurring uncertainties and multiple delays. International Journal of Systems Science, 2018, 49, 2039-2059.	5.5	7
45	A flexible and adaptive Simpler GMRES with deflated restarting for shifted linear systems. Computers and Mathematics With Applications, 2019, 78, 997-1007.	2.7	7
46	Efficient variants of the CMRH method for solving a sequence of multi-shifted non-Hermitian linear systems simultaneously. Journal of Computational and Applied Mathematics, 2020, 375, 112788.	2.0	7
47	Preconditioners for all-at-once system from the fractional mobile/immobile advectionâ€“diffusion model. Journal of Applied Mathematics and Computing, 2021, 65, 669-691.	2.5	7
48	Two finite difference methods based on an H2N2 interpolation for two-dimensional time fractional mixed diffusion and diffusion-wave equations. Discrete and Continuous Dynamical Systems - Series B, 2022, 27, 1179.	0.9	7
49	TWO CSCS-BASED ITERATION METHODS FOR SOLVING ABSOLUTE VALUE EQUATIONS. Journal of Applied Analysis and Computation, 2017, 7, 1336-1356.	0.5	7
50	A Fast Second-Order Implicit Difference Method for Time-Space Fractional Advection-Diffusion Equation. Numerical Functional Analysis and Optimization, 2020, 41, 257-293.	1.4	6
51	A Fast Preconditioned Semi-Implicit Difference Scheme for Strongly Nonlinear Space-Fractional Diffusion Equations. Fractal and Fractional, 2021, 5, 230.	3.3	6
52	An adaptive Power-GArnoldi algorithm for computing PageRank. Journal of Computational and Applied Mathematics, 2021, 386, 113209.	2.0	5
53	A Hessenberg-type algorithm for computing PageRank Problems. Numerical Algorithms, 0, , 1.	1.9	5
54	Numerical Gradient Schemes for Heat Equations Based on the Collocation Polynomial and Hermite Interpolation. Mathematics, 2019, 7, 93.	2.2	4

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55	Comment on â€œA note on the inverse eigenvalue problem for symmetric doubly stochastic matricesâ€. Linear Algebra and Its Applications, 2013, 439, 2256-2262.	0.9	3
56	Fast IIFâ€“WENO Method on Non-uniform Meshes for Nonlinear Space-Fractional Convectionâ€“Diffusionâ€“Reaction Equations. Journal of Scientific Computing, 2021, 89, 1.	2.3	3
57	Fast permutation preconditioning for fractional diffusion equations. SpringerPlus, 2016, 5, 1109.	1.2	2
58	A Breakdown-Free Block COCG Method for Complex Symmetric Linear Systems with Multiple Right-Hand Sides. Symmetry, 2019, 11, 1302.	2.2	2
59	A Preconditioned Variant of the Refined Arnoldi Method for Computing PageRank Eigenvectors. Symmetry, 2021, 13, 1327.	2.2	2
60	Fast numerical schemes for nonlinear space-fractional multidelay reaction-diffusion equations by implicit integration factor methods. Applied Mathematics and Computation, 2021, 408, 126360.	2.2	2
61	Learning Discriminative Text Representation for Streaming Social Event Detection. IEEE Transactions on Knowledge and Data Engineering, 2021, , 1-1.	5.7	2
62	BiCGCR2: A new extension of conjugate residual method for solving non-Hermitian linear systems. Journal of Computational and Applied Mathematics, 2016, 305, 115-128.	2.0	1
63	Anderson Acceleration of the Arnoldi-Inout Method for Computing PageRank. Symmetry, 2021, 13, 636.	2.2	1
64	A Flexible Global GCRO-DR Method for Shifted Linear Systems and General Coupled Matrix Equations. Journal of Mathematics, 2021, 2021, 1-17.	1.0	1
65	A hybrid triangulation method for banded linear systems. Mathematics and Computers in Simulation, 2022, 194, 97-108.	4.4	1
66	A simpler GMRES algorithm accelerated by Chebyshev polynomials for computing PageRank. Journal of Computational and Applied Mathematics, 2022, , 114395.	2.0	1
67	Some Refinements and Generalizations of I. Schur Type Inequalities. Scientific World Journal, The, 2014, 2014, 1-8.	2.1	0
68	Multipreconditioned GMRES for simulating stochastic automata networks. Open Mathematics, 2018, 16, 986-998.	1.0	0
69	An implicit integration factor method for a kind of spatial fractional diffusion equations. Journal of Physics: Conference Series, 2019, 1324, 012030.	0.4	0
70	Compact implicit integration factor method for two-dimensional space-fractional advection-diffusion-reaction equations. Journal of Physics: Conference Series, 2020, 1592, 012048.	0.4	0