Chengming Huang

List of Publications by Year
in descending order

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116 papers	2,592 citations	172457 29 h-index	223800 46 g-index
117 all docs	117 docs citations	117 times ranked	836 citing authors

#	Article	IF	Citations
1	An energy conservative difference scheme for the nonlinear fractional SchrÃ¶dinger equations. Journal of Computational Physics, 2015, 293, 238-251.	3.8	179
2	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
3	Spectral collocation method for linear fractional integro-differential equations. Applied Mathematical Modelling, 2014, 38, 1434-1448.	4.2	96
4	Galerkin finite element method for nonlinear fractional SchrÃ¶dinger equations. Numerical Algorithms, 2017, 74, 499-525.	1.9	90
5	Numerical solution of fractional integro-differential equations by a hybrid collocation method. Applied Mathematics and Computation, 2013, 219, 6750-6760.	2.2	82
6	An Analysis of Delay-Dependent Stability for Ordinary and Partial Differential Equations with Fixed and Distributed Delays. SIAM Journal of Scientific Computing, 2004, 25, 1608-1632.	2.8	75
7	Robustness of general decay stability of nonlinear neutral stochastic functional differential equations with infinite delay. Systems and Control Letters, 2010, 59, 195-202.	2.3	75
8	Point-wise error estimate of a conservative difference scheme for the fractional SchrÃ¶dinger equation. Journal of Computational and Applied Mathematics, 2016, 306, 231-247.	2.0	68
9	Exponential mean square stability of numerical methods for systems of stochastic differential equations. Journal of Computational and Applied Mathematics, 2012, 236, 4016-4026.	2.0	66
10	Stability and error analysis of one-leg methods for nonlinear delay differential equations. Journal of Computational and Applied Mathematics, 1999, 103, 263-279.	2.0	63
11	An implicit midpoint difference scheme for the fractional Ginzburgâ€“Landau equation. Journal of Computational Physics, 2016, 312, 31-49.	3.8	62
12	Dissipativity of Runge-Kutta methods for dynamical systems with delays. IMA Journal of Numerical Analysis, 2000, 20, 153-166.	2.9	59
13	A conservative linearized difference scheme for the nonlinear fractional SchrÃ¶dinger equation. Numerical Algorithms, 2015, 69, 625-641.	1.9	54
14	Galerkin finite element method for the nonlinear fractional Ginzburgâ€“Landau equation. Applied Numerical Mathematics, 2017, 118, 131-149.	2.1	50
15	Stochastic Lotkaâ€“Volterra models with multiple delays. Journal of Mathematical Analysis and Applications, 2011, 375, 42-57.	1.0	48
16	Structure-preserving numerical methods for the fractional SchrÃ¶dinger equation. Applied Numerical Mathematics, 2018, 129, 137-158.	2.1	46
17	Mean square stability and dissipativity of two classes of thetaÂmethods for systems of stochastic delay differential equations. Journal of Computational and Applied Mathematics, 2014, 259, 77-86.	2.0	44
18	Stability Analysis of Runge-Kutta Methods for Non-Linear Delay Differential Equations. BIT Numerical Mathematics, 1999, 39, 270-280.	2.0	42

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19	Nonconforming Virtual Element Method for the Time Fractional Reactionâ€“Subdiffusion Equation with Non-smooth Data. Journal of Scientific Computing, 2019, 81, 1823-1859.	2.3	42
20	Robustness of exponential stability of a class of stochastic functional differential equations with infinite delay. Automatica, 2009, 45, 2577-2584.	5.0	40
21	Exponential mean square stability of the theta approximations for neutral stochastic differential delay equations. Journal of Computational and Applied Mathematics, 2015, 286, 172-185.	2.0	35
22	Split-step alternating direction implicit difference scheme for the fractional SchrÃ¶dinger equation in two dimensions. Computers and Mathematics With Applications, 2016, 71, 1114-1128.	2.7	35
23	An efficient difference scheme for the coupled nonlinear fractional Ginzburgâ€“Landau equations with the fractional Laplacian. Numerical Methods for Partial Differential Equations, 2019, 35, 394-421.	3.6	35
24	Unconditionally stable difference methods for delay partial differential equations. Numerische Mathematik, 2012, 122, 579-601.	1.9	34
25	An efficient fourth-order in space difference scheme for the nonlinear fractional Ginzburgâ€“Landau equation. BIT Numerical Mathematics, 2018, 58, 783-805.	2.0	34
26	Dissipativity of one-leg methods for dynamical systems with delays. Applied Numerical Mathematics, 2000, 35, 11-22.	2.1	33
27	Convergence and stability of the semi-tamed Euler scheme for stochastic differential equations with non-Lipschitz continuous coefficients. Applied Mathematics and Computation, 2014, 228, 240-250.	2.2	33
28	Theta schemes for SDDEs with non-globally Lipschitz continuous coefficients. Journal of Computational and Applied Mathematics, 2015, 278, 258-277.	2.0	33
29	Discretized Stability and Error Growth of The Nonautonomous Pantograph Equation. SIAM Journal on Numerical Analysis, 2005, 42, 2020-2042.	2.3	30
30	Delay-dependent stability analysis of numerical methods for stochastic delay differential equations. Journal of Computational and Applied Mathematics, 2012, 236, 3514-3527.	2.0	29
31	An efficient split-step quasi-compact finite difference method for the nonlinear fractional Ginzburgâ€“Landau equations. Computers and Mathematics With Applications, 2018, 75, 2223-2242.	2.7	29
32	Stability of linear multistep methods for delay integro-differential equations. Computers and Mathematics With Applications, 2008, 55, 2830-2838.	2.7	28
33	Stability of Runge-Kutta-Pouzet methods for Volterra integro-differential equations with delays. Frontiers of Mathematics in China, 2009, 4, 63-87.	0.7	28
34	A relaxation-type Galerkin FEM for nonlinear fractional SchrÃ¶dinger equations. Numerical Algorithms, 2020, 83, 99-124.	1.9	24
35	Conforming and nonconforming VEMs for the fourth-order reactionâ€“subdiffusion equation: a unified framework. IMA Journal of Numerical Analysis, 2022, 42, 2238-2300.	2.9	24
36	Delay-dependent stability of high order Rungeâ€“Kutta methods. Numerische Mathematik, 2009, 111, 377-387.	1.9	23

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37	Dissipativity of multistep runge-kutta methods for dynamical systems with delays. Mathematical and Computer Modelling, 2004, 40, 1285-1296.	2.0	22
38	Strong stability preserving hybrid methods. Applied Numerical Mathematics, 2009, 59, 891-904.	2.1	22
39	Fast conservative numerical algorithm for the coupled fractional Klein-Gordon-SchrÃ¶dinger equation. Numerical Algorithms, 2020, 84, 1081-1119.	1.9	22
40	Galerkin finite element method for higher dimensional multi-term fractional diffusion equation on non-uniform meshes. Applicable Analysis, 2017, 96, 1269-1284.	1.3	20
41	Mixed finite-element method for multi-term time-fractional diffusion and diffusion-wave equations. Computational and Applied Mathematics, 2018, 37, 2309-2334.	1.3	20
42	Nonlinear Stability of General Linear Methods for Delay Differential Equations. BIT Numerical Mathematics, 2002, 42, 380-392.	2.0	19
43	The Linear Barycentric Rational Quadrature Method for Auto-Convolution Volterra Integral Equations. Journal of Scientific Computing, 2019, 78, 549-564.	2.3	19
44	Galerkinâ€“Legendre spectral method for the distributed-order time fractional fourth-order partial differential equation. International Journal of Computer Mathematics, 2020, 97, 1183-1196.	1.8	18
45	Stability of stochasticÎ¸-methods for stochastic delay integro-differential equations. International Journal of Computer Mathematics, 2011, 88, 1417-1429.	1.8	17
46	Preserving exponential mean square stability and decay rates in two classes of theta approximations of stochastic differential equations. Journal of Difference Equations and Applications, 2014, 20, 1091-1111.	1.1	16
47	ADI Galerkin FEMs for the 2D nonlinear time-space fractional diffusion-wave equation. International Journal of Modeling, Simulation, and Scientific Computing, 2017, 08, 1750025.	1.4	16
48	Unconditional error analysis of Galerkin FEMs for nonlinear fractional SchrÃ¶dinger equation. Applicable Analysis, 2018, 97, 295-315.	1.3	16
49	Delay dependent asymptotic mean square stability analysis of the stochastic exponential Euler method. Journal of Computational and Applied Mathematics, 2021, 382, 113068.	2.0	16
50	Linear stability of general linear methods for systems of neutral delay differential equations. Applied Mathematics Letters, 2001, 14, 1017-1021.	2.7	14
51	Asymptotic stability of linear multistep methods for nonlinear neutral delay differential equations. Applied Mathematics and Computation, 2009, 211, 95-101.	2.2	14
52	Strong convergence of split-step theta methods for non-autonomous stochastic differential equations. International Journal of Computer Mathematics, 2014, 91, 2260-2275.	1.8	14
53	A dissipation-preserving finite element method for nonlinear fractional wave equations on irregular convex domains. Mathematics and Computers in Simulation, 2020, 177, 404-419.	4.4	14
54	Numerical methods for stochastic Volterra integral equations with weakly singular kernels. IMA Journal of Numerical Analysis, 2022, 42, 2656-2683.	2.9	14

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55	Superconvergence in collocation methods for Volterra integral equations with vanishing delays. Journal of Computational and Applied Mathematics, 2016, 308, 361-378.	2.0	13
56	A mass-energy preserving Galerkin FEM for the coupled nonlinear fractional SchrÃ¶dinger equations. European Physical Journal Plus, 2018, 133, 1.	2.6	13
57	A high-order L2 type difference scheme for the time-fractional diffusion equation. Applied Mathematics and Computation, 2021, 411, 126545.	2.2	13
58	Dissipation-preserving Galerkinâ€“Legendre spectral methods for two-dimensional fractional nonlinear wave equations. Computers and Mathematics With Applications, 2020, 80, 617-635.	2.7	12
59	Delay-dependent exponential stability of the backward Euler method for nonlinear stochastic delay differential equations. International Journal of Computer Mathematics, 2012, 89, 1039-1050.	1.8	11
60	Stochastic stability of a class of unbounded delay neutral stochastic differential equations with general decay rate. International Journal of Systems Science, 2012, 43, 308-318.	5.5	11
61	Existence results and the moment estimate for nonlocal stochastic differential equations with time-varying delay. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 405-416.	1.1	11
62	Stability analysis of numerical methods for systems of functional-differential and functional equations. Computers and Mathematics With Applications, 2002, 44, 717-729.	2.7	10
63	Stability analysis of general linear methods for the nonautonomous pantograph equation. IMA Journal of Numerical Analysis, 2008, 29, 444-465.	2.9	10
64	Parareal-Richardson Algorithm for Solving Nonlinear ODEs and PDEs. Communications in Computational Physics, 2009, 6, 883-902.	1.7	10
65	The moment exponential stability criterion of nonlinear hybrid stochastic differential equations and its discrete approximations. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2016, 146, 1303-1328.	1.2	10
66	An adaptive Filon-type method for oscillatory integrals without stationary points. Numerical Algorithms, 2017, 75, 753-775.	1.9	10
67	Collocation methods for Volterra functional integral equations with non-vanishing delays. Applied Mathematics and Computation, 2017, 296, 198-214.	2.2	10
68	Galerkinâ€Legendre spectral method for the nonlinear Ginzburgâ€Landau equation with the Riesz fractional derivative. Mathematical Methods in the Applied Sciences, 2021, 44, 2711-2730.	2.3	10
69	Convergence analysis of the overlapping Schwarz waveform relaxation algorithm for reaction-diffusion equations with time delay. IMA Journal of Numerical Analysis, 2012, 32, 632-671.	2.9	9
70	A second-order implicit difference scheme for the nonlinear time-space fractional SchrÃ¶dinger equation. Applied Numerical Mathematics, 2020, 153, 399-411.	2.1	9
71	Newton waveform relaxation method for solving algebraic nonlinear equations. Applied Mathematics and Computation, 2008, 201, 553-560.	2.2	8
72	Delay-dependent stability analysis of trapezium rule for second order delay differential equations with three parameters. Journal of the Franklin Institute, 2010, 347, 1437-1451.	3.4	8

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73	Analytical and numerical stability of nonlinear neutral delay integro-differential equations. Journal of the Franklin Institute, 2011, 348, 1082-1100.	3.4	8
74	Lasalle method and general decay stability of stochastic neural networks with mixed delays. Journal of Applied Mathematics and Computing, 2012, 38, 257-278.	2.5	8
75	The Stochastic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:mi mathvariant="normal">Î˜</mml:mi></mml:mrow></mml:math>-Method for Nonlinear Stochastic Volterra Integro-Differential Equations. Abstract and Applied Analysis, 2014, 2014, 1-13.	0.7	7
76	Unconditional Energy Dissipation and Error Estimates of the SAV Fourier Spectral Method for Nonlinear Fractional Generalized Wave Equation. Journal of Scientific Computing, 2021, 88, 1.	2.3	7
77	D-Convergence of general linear methods for stiff delay differential equations. Computers and Mathematics With Applications, 2001, 41, 627-639.	2.7	6
78	Asymptotic stability of multistep methods for nonlinear delay differential equations. Applied Mathematics and Computation, 2008, 203, 908-912.	2.2	6
79	Two-Step Relaxation Newton Method for Nonsymmetric Algebraic Riccati Equations Arising from Transport Theory. Mathematical Problems in Engineering, 2009, 2009, 1-17.	1.1	6
80	Double-implicit and split two-step Milstein schemes for stochastic differential equations. International Journal of Computer Mathematics, 2016, 93, 1987-2011.	1.8	6
81	Optimal superconvergence results for Volterra functional integral equations with proportional vanishing delays. Applied Mathematics and Computation, 2018, 320, 292-301.	2.2	6
82	Stability analysis of Runge-Kutta methods for Volterra integro-differential equations. Applied Numerical Mathematics, 2019, 146, 73-88.	2.1	6
83	Barycentric rational collocation methods for Volterra integral equations with weakly singular kernels. Computational and Applied Mathematics, 2019, 38, 1.	2.2	6
84	Error estimates of structureâ€preserving Fourier pseudospectral methods for the fractional SchrÃ¶dinger equation. Numerical Methods for Partial Differential Equations, 2020, 36, 369-393.	3.6	6
85	Mean-square stability and convergence of a split-step theta method for stochastic Volterra integral equations. Journal of Computational and Applied Mathematics, 2021, 382, 113077.	2.0	6
86	Asymptotic separation for stochastic Volterra integral equations with doubly singular kernels. Applied Mathematics Letters, 2021, 113, 106880.	2.7	6
87	Convergence Results of One-Leg and Linear Multistep Methods for Multiply Stiff Singular Perturbation Problems. Computing (Vienna/New York), 2001, 66, 365-375.	4.8	5
88	Delay-dependent stability analysis of multistep methods for delay differential equations. Acta Mathematicae Applicatae Sinica, 2009, 25, 607-616.	0.7	5
89	Delay-dependent dissipativity of nonlinear delay differential equations. Applied Mathematics Letters, 2013, 26, 924-928.	2.7	5
90	Strong Convergence of the Split-Step Theta Method for Stochastic Delay Differential Equations with Nonglobally Lipschitz Continuous Coefficients. Abstract and Applied Analysis, 2014, 2014, 1-9.	0.7	5

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91	Convergence analysis of spectral collocation methods for a class of weakly singular Volterra integral equations. Applied Mathematics and Computation, 2015, 250, 131-144.	2.2	5
92	A Spectral Penalty Method for Two-Sided Fractional Differential Equations with General Boundary Conditions. SIAM Journal of Scientific Computing, 2019, 41, A1840-A1866.	2.8	5
93	Recovery of high order accuracy in spectral collocation method for linear Volterra integral equations of the third-kind with non-smooth solutions. Journal of Computational and Applied Mathematics, 2021, 392, 113458.	2.0	5
94	Convergence analysis of waveform relaxation methods for neutral differential-functional systems. Journal of Computational and Applied Mathematics, 2009, 223, 263-277.	2.0	4
95	Compensated projected Euler-Maruyama method for stochastic differential equations with superlinear jumps. Applied Mathematics and Computation, 2021, 393, 125760.	2.2	4
96	B-convergence of general linear methods for stiff problems. Applied Numerical Mathematics, 2003, 47, 31-44.	2.1	3
97	Linear stability of numerical methods for systems of functional differential equations with a proportional delay*. Progress in Natural Science: Materials International, 2003, 13, 329-333.	4.4	3
98	General decay pathwise stability of neutral stochastic differential equations with unbounded delay. Acta Mathematica Sinica, English Series, 2011, 27, 2153-2168.	0.6	3
99	Stochastic exponential integrator for finite element spatial discretization of stochastic elastic equation. Computers and Mathematics With Applications, 2015, 69, 817-827.	2.7	3
100	A linearized high-order Galerkin finite element approach for two-dimensional nonlinear time fractional Klein-Gordon equations. Numerical Algorithms, 2021, 87, 551-574.	1.9	3
101	A linearized conservative Galerkinâ€“Legendre spectral method for the strongly coupled nonlinear fractional SchrÃ¶dinger equations. Advances in Difference Equations, 2020, 2020, .	3.5	3
102	Quasi-optimized Schwarz methods for reaction diffusion equations with time delay. Journal of Mathematical Analysis and Applications, 2012, 385, 354-370.	1.0	2
103	The Boundedness and Exponential Stability Criterions for Nonlinear Hybrid Neutral Stochastic Functional Differential Equations. Abstract and Applied Analysis, 2013, 2013, 1-12.	0.7	2
104	Projected Euler-Maruyama method for stochastic delay differential equations under a global monotonicity condition. Applied Mathematics and Computation, 2020, 366, 124733.	2.2	2
105	Highly stable multistep Rungeâ€“Kutta methods for Volterra integral equations. Computational and Applied Mathematics, 2020, 39, 1.	2.2	2
106	Exponential fitting collocation methods for a class of Volterra integral equations. Applied Mathematics and Computation, 2020, 376, 125121.	2.2	2
107	An accurate Legendre collocation method for third-kind Volterra integro-differential equations with non-smooth solutions. Numerical Algorithms, 2021, 88, 1571-1593.	1.9	2
108	A two-parameter Milstein method for stochastic Volterra integral equations. Journal of Computational and Applied Mathematics, 2022, 404, 113870.	2.0	2

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109	Two-step relaxation Newton algorithm for solving nonlinear algebraic equations. Journal of Applied Mathematics and Computing, 2010, 33, 459-470.	2.5	1
110	Convergence and stability of numerical solutions to a class of index 1 stochastic differential algebraic equations with time delay. Applied Mathematics and Computation, 2010, 215, 4008-4021.	2.2	1
111	Delay dependent stability of stochastic split-step Î¸ methods for stochastic delay differential equations. Applied Mathematics and Computation, 2018, 339, 663-674.	2.2	1
112	The asymptotic stability of multistep multiderivative methods for systems of delay differential equations. Communications in Nonlinear Science and Numerical Simulation, 2000, 5, 24-26.	3.3	0
113	Some New Results on the Lotka-Volterra System with Variable Delay. Abstract and Applied Analysis, 2014, 2014, 1-10.	0.7	0
114	Linear stability of numerical methods for systems of functional differential equations with a proportional delay. Progress in Natural Science: Materials International, 2003, 13, 329.	4.4	0
115	Asymptotic Results of Schwarz Waveform Relaxation Algorithm for Time Fractional Cable Equations. Communications in Computational Physics, 2019, 25, .	1.7	0
116	The generalized quadrature method for a class of highly oscillatory Volterra integral equations. Numerical Algorithms, 0, , .	1.9	0