Chengjian Zhang

List of Publications by Year
in descending order

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75 papers	1,150 citations	331670 21 h-index	454955 30 g-index
75 all docs	75 docs citations	75 times ranked	386 citing authors

#	Article	IF	Citations
1	General Linear Methods for Volterra Integro-differential Equations with Memory. SIAM Journal of Scientific Computing, 2006, 27, 2010-2031.	2.8	59
2	Stability analysis of Volterra delay-integro-differential equations and their backward differentiation time discretization. Journal of Computational and Applied Mathematics, 2004, 164-165, 797-814.	2.0	51
3	A note on compact finite difference method for reactionâ€“diffusion equations with delay. Applied Mathematical Modelling, 2015, 39, 1749-1754.	4.2	46
4	An analysis of stability of milstein method for stochastic differential equations with delay. Computers and Mathematics With Applications, 2006, 51, 1445-1452.	2.7	45
5	A new linearized compact multisplitting scheme for the nonlinear convectionâ€“reactionâ€“diffusion equations with delay. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 3278-3288.	3.3	45
6	Convergence and stability of extended block boundary value methods for Volterra delay integro-differential equations. Applied Numerical Mathematics, 2012, 62, 141-154.	2.1	44
7	A compact difference scheme combined with extrapolation techniques for solving a class of neutral delay parabolic differential equations. Applied Mathematics Letters, 2013, 26, 306-312.	2.7	43
8	Preserving stability implicit Euler method for nonlinear Volterra and neutral functional differential equations in Banach space. Numerische Mathematik, 2010, 115, 451-474.	1.9	42
9	LDG method for reactionâ€“diffusion dynamical systems with time delay. Applied Mathematics and Computation, 2011, 217, 9173-9181.	2.2	40
10	The compact and Crankâ€“Nicolson ADI schemes for two-dimensional semilinear multidelay parabolic equations. Journal of Computational and Applied Mathematics, 2016, 306, 217-230.	2.0	40
11	Boundary value methods for Volterra integral and integro-differential equations. Applied Mathematics and Computation, 2011, 218, 2619-2630.	2.2	35
12	Long time behavior of non-Fickian delay reactionâ€“diffusion equations. Nonlinear Analysis: Real World Applications, 2012, 13, 1401-1415.	1.7	33
13	The asymptotic stability of theoretical and numerical solutions for systems of neutral multidelay-differential equations. Science in China Series A: Mathematics, 1998, 41, 1151-1157.	0.5	31
14	Block boundary value methods for delay differential equations. Applied Numerical Mathematics, 2010, 60, 915-923.	2.1	31
15	Implicitâ€“explicit predictorâ€“corrector schemes for nonlinear parabolic differential equations. Applied Mathematical Modelling, 2011, 35, 2711-2722.	4.2	30
16	Stability criteria for exact and discrete solutions of neutral multidelay-integro-differential equations. Advances in Computational Mathematics, 2008, 28, 383-399.	1.6	27
17	The discrete dynamics of nonlinear infinite-delay-differential equations. Applied Mathematics Letters, 2002, 15, 521-526.	2.7	26
18	The extended one-leg methods for nonlinear neutral delay-integro-differential equations. Applied Numerical Mathematics, 2009, 59, 1409-1418.	2.1	26

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19	A linearly implicit conservative scheme for the fractional nonlinear SchrÃ¶dinger equation with wave operator. International Journal of Computer Mathematics, 2016, 93, 1103-1118.	1.8	26
20	Block boundary value methods applied to functional differential equations with piecewise continuous arguments. Applied Numerical Mathematics, 2017, 115, 214-224.	2.1	26
21	Asymptotic stability of block boundary value methods for delay differential-algebraic equations. Mathematics and Computers in Simulation, 2010, 81, 100-108.	4.4	24
22	Implicit-explicit time integration of nonlinear fractional differential equations. Applied Numerical Mathematics, 2020, 156, 555-583.	2.1	22
23	A new fourthâ€order numerical algorithm for a class of threeâ€dimensional nonlinear evolution equations. Numerical Methods for Partial Differential Equations, 2013, 29, 102-130.	3.6	21
24	Application of a fourth-order compact ADI method to solve a two-dimensional linear hyperbolic equation. International Journal of Computer Mathematics, 2013, 90, 273-291.	1.8	21
25	A spectral Galerkin method for nonlinear delay convectionâ€“diffusionâ€“reaction equations. Computers and Mathematics With Applications, 2015, 69, 709-724.	2.7	17
26	Strang-type preconditioners applied to ordinary and neutral differential-algebraic equations. Numerical Linear Algebra With Applications, 2011, 18, 843-855.	1.6	16
27	Multistep finite difference schemes for the variable coefficient delay parabolic equations. Journal of Difference Equations and Applications, 2016, 22, 745-765.	1.1	15
28	Convergence and stability of block boundary value methods applied to nonlinear fractional differential equations with Caputo derivatives. Applied Numerical Mathematics, 2019, 135, 367-380.	2.1	14
29	Linearized compact difference methods combined with Richardson extrapolation for nonlinear delay Sobolev equations. Communications in Nonlinear Science and Numerical Simulation, 2020, 91, 105461.	3.3	14
30	The adapted block boundary value methods for singular initial value problems. Calcolo, 2018, 55, 1.	1.1	13
31	Asymptotical boundedness and moment exponential stability for stochastic neutral differential equations with time-variable delay and markovian switching. Applied Mathematics Letters, 2017, 70, 46-51.	2.7	12
32	Solving nonlinear functionalâ€“differential and functional equations with constant delay via block boundary value methods. Mathematics and Computers in Simulation, 2019, 166, 21-32.	4.4	12
33	Analysis of a fourth-order compact ADI method for a linear hyperbolic equation with three spatial variables. Numerical Algorithms, 2013, 63, 1-26.	1.9	11
34	Extended block boundary value methods for neutral equations with piecewise constant argument. Applied Numerical Mathematics, 2020, 150, 182-193.	2.1	11
35	Compact scheme for fractional diffusion-wave equation with spatial variable coefficient and delays. Applicable Analysis, 2022, 101, 1911-1932.	1.3	11
36	A class of compact boundary value methods applied to semi-linear reactionâ€“diffusion equations. Applied Mathematics and Computation, 2018, 325, 69-81.	2.2	10

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37	Preconditioned quasi-compact boundary value methods for space-fractional diffusion equations. Numerical Algorithms, 2020, 84, 633-649.	1.9	10
38	A multi-domain Legendre spectral collocation method for nonlinear neutral equations with piecewise continuous argument. International Journal of Computer Mathematics, 2018, 95, 2419-2432.	1.8	9
39	Generalized StÃ¶rmerâ€“Cowell Methods for Nonlinear BVPs of Second-Order Delay-Integro-Differential Equations. Journal of Scientific Computing, 2018, 74, 1221-1240.	2.3	9
40	Compact alternating direction implicit method to solve two-dimensional nonlinear delay hyperbolic differential equations. International Journal of Computer Mathematics, 2014, 91, 964-982.	1.8	8
41	An implicit difference scheme with the KPS preconditioner for two-dimensional timeâ€“space fractional convectionâ€“diffusion equations. Computers and Mathematics With Applications, 2020, 80, 31-42.	2.7	8
42	A fully discrete <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e759" altimg="si228.svg"><mml:mi>l¸</mml:mi></mml:math>-method for solving semi-linear reactionâ€“diffusion equations with time-variable delay. Mathematics and Computers in Simulation, 2021, 179, 48-56.	4.4	8
43	Asymptotic stability of exact and discrete solutions for neutral multidelay-integro-differential equations. Applied Mathematical Modelling, 2011, 35, 4490-4506.	4.2	7
44	Multiâ€scale approach for simulating timeâ€delay biochemical reaction systems. IET Systems Biology, 2015, 9, 31-38.	1.5	7
45	Numerical approximation to a class of nonlinear hybrid system with distributed delay via block boundary value methods. Journal of Computational and Applied Mathematics, 2020, 378, 112942.	2.0	7
46	A derivative-free explicit method with order 1.0 for solving stochastic delay differential equations. Journal of Computational and Applied Mathematics, 2013, 253, 51-65.	2.0	6
47	The discrete maximum principle and energy stability of a new second-order difference scheme for Allen-Cahn equations. Applied Numerical Mathematics, 2021, 166, 227-237.	2.1	6
48	The stability relation between ordinary and delay-integro-differential equations. Mathematical and Computer Modelling, 2009, 49, 13-19.	2.0	5
49	The extended Pouzetâ€“Rungeâ€“Kutta methods for nonlinear neutral delay-integro-differential equations. Computing (Vienna/New York), 2010, 90, 57-71.	4.8	5
50	Implicit-explicit one-leg methods for nonlinear stiff neutral equations. Applied Mathematics and Computation, 2018, 335, 196-210.	2.2	5
51	Backward Euler-Maruyama method applied to nonlinear hybrid stochastic differential equations with time-variable delay. Science China Mathematics, 2019, 62, 597-616.	1.7	5
52	Compensated split-step balanced methods for nonlinear stiff SDEs with jump-diffusion and piecewise continuous arguments. Science China Mathematics, 2020, 63, 2573-2594.	1.7	5
53	Galerkin finite element methods solving 2D initialâ€“boundary value problems of neutral delay-reactionâ€“diffusion equations. Computers and Mathematics With Applications, 2021, 92, 159-171.	2.7	5
54	One-parameter orthogonal spline collocation methods for nonlinear two-dimensional Sobolev equations with time-variable delay. Communications in Nonlinear Science and Numerical Simulation, 2022, 108, 106233.	3.3	5

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55	NGP(Î±)-stability of general linear methods for NDDEs. Computers and Mathematics With Applications, 2004, 47, 1105-1113.	2.7	4
56	Almost sure and moment exponential stability of predictor-corrector methods for stochastic differential equations. Journal of Systems Science and Complexity, 2012, 25, 736-743.	2.8	4
57	Mean-Square Stability of Milstein Methods for Stochastic Pantograph Equations. Mathematical Problems in Engineering, 2013, 2013, 1-7.	1.1	4
58	Construction of high-order Rungeâ€“Kutta methods which preserve delay-dependent stability of DDEs. Applied Mathematics and Computation, 2016, 280, 168-179.	2.2	4
59	A class of stochastic one-parameter methods for nonlinear SFDEs with piecewise continuous arguments. Applied Numerical Mathematics, 2019, 135, 1-14.	2.1	4
60	A Class of New Pouzet-Runge-Kutta-Type Methods for Nonlinear Functional Integro-Differential Equations. Abstract and Applied Analysis, 2012, 2012, 1-21.	0.7	3
61	Compact block boundary value methods for semiâ€linear delayâ€reactionâ€“diffusion equations with algebraic constraints. Numerical Methods for Partial Differential Equations, 2020, 36, 1304-1317.	3.6	3
62	Convergence and stability of extended BBVMs for nonlinear delay-differential-algebraic equations with piecewise continuous arguments. Numerical Algorithms, 2021, 87, 921-937.	1.9	3
63	Dissipativity of variable-stepsize Runge-Kutta methods for nonlinear functional differential equations with application to Nicholsonâ€™s blowflies models. Communications in Nonlinear Science and Numerical Simulation, 2021, 97, 105723.	3.3	2
64	Solving semi-linear stiff neutral equations by implicitâ€“explicit Runge-Kutta methods. International Journal of Computer Mathematics, 2020, 97, 2561-2581.	1.8	2
65	One-parameter Galerkin Finite Element Methods for Neutral Reaction-diffusion Equations with Piecewise Continuous Arguments. Journal of Scientific Computing, 2022, 90, 1.	2.3	2
66	On the Long Time Simulation of Reaction-Diffusion Equations with Delay. Scientific World Journal, The, 2014, 2014, 1-5.	2.1	1
67	An extension of numerical stability criteria for linear neutral multidelay-integro-differential equations. Applied Mathematics and Computation, 2015, 265, 347-351.	2.2	1
68	Compact Discrete Gradient Schemes for Nonlinear SchrÃ¶dinger Equations. International Journal of Nonlinear Sciences and Numerical Simulation, 2017, 18, 1-7.	1.0	1
69	A preconditioned implicit difference scheme for semilinear twoâ€dimensional timeâ€“space fractional Fokkerâ€“Planck equations. Numerical Linear Algebra With Applications, 2021, 28, e2357.	1.6	1
70	Asymptotical-stability-preserving finite element methods in time for 2D neutral delay-reactionâ€“diffusion equations. Applied Mathematics Letters, 2022, 131, 108082.	2.7	1
71	Generalized Jacobi-Gauss-Lobatto interpolation. Frontiers of Mathematics in China, 2013, 8, 933-960.	0.7	0
72	Application of gPCRK Methods to Nonlinear Random Differential Equations with Piecewise Constant Argument. East Asian Journal on Applied Mathematics, 2017, 7, 306-324.	0.9	0

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73	An exponential stability criterion for nonlinear second-order functional differential equations with time-variable delays. Applied Mathematics and Computation, 2018, 328, 119-124.	2.2	0
74	A multigrid method with reduced phase error for 2D damped Helmholtz equations. Mathematical Methods in the Applied Sciences, 2021, 44, 12010-12020.	2.3	0
75	Numerical approximation to semi-linear stiff neutral equations via implicitâ€“explicit general linear methods. Mathematics and Computers in Simulation, 2022, 196, 68-87.	4.4	0