Qin Sheng

List of Publications by Year
in descending order

52 papers	524 citations	759233 12 h-index	752698 20 g-index
53 all docs	53 docs citations	53 times ranked	240 citing authors

#	Article	IF	Citations
1	Two energy-preserving numerical models for a multi-fractional extension of the Klein–Gordon–Zakharov system. Journal of Computational and Applied Mathematics, 2022, 406, 114023.	2.0	4
2	A nonlinear discrete model for approximating a conservative multi-fractional Zakharov system: Analysis and computational simulations. Mathematics and Computers in Simulation, 2022, , .	4.4	2
3	Second-Order Semi-Discretized Schemes for Solving Stochastic Quenching Models on Arbitrary Spatial Grids. Discrete Dynamics in Nature and Society, 2021, 2021, 1-19.	0.9	0
4	A preservative splitting approximation of the solution of a variable coefficient quenching problem. Computers and Mathematics With Applications, 2021, 100, 62-73.	2.7	5
5	A series representation of the discrete fractional Laplace operator of arbitrary order. Journal of Mathematical Analysis and Applications, 2021, 504, 125323.	1.0	1
6	A note on the adaptive numerical solution of a Riemann–Liouville space-fractional Kawarada problem. Journal of Computational and Applied Mathematics, 2020, 374, 112714.	2.0	7
7	Numerical stabilities study of a decomposed compact method for highly oscillatory Helmholtz equations. Journal of Computational and Applied Mathematics, 2019, 354, 334-347.	2.0	1
8	Preinflationary perturbations from the closed algebra approach in loop quantum cosmology. Physical Review D, 2019, 99, .	4.7	10
9	Asymptotic stability of a dual-scale compact method for approximating highly oscillatory Helmholtz solutions. Journal of Computational Physics, 2019, 392, 403-418.	3.8	3
10	An Exploration of a Balanced Up-Downwind Scheme for Solving Heston Volatility Model Equations on Variable Grids. Algorithms, 2019, 12, 30.	2.1	1
11	Convergence of an Operator Splitting Scheme for Abstract Stochastic Evolution Equations. Advances in Mechanics and Mathematics, 2019, , 163-179.	0.7	3
12	Discrete Dynamics of Nonlinear Systems in Nature and Society. Discrete Dynamics in Nature and Society, 2019, 2019, 1-2.	0.9	0
13	On variational properties of balanced central fractional derivatives. International Journal of Computer Mathematics, 2018, 95, 1195-1209.	1.8	8
14	Primordial non-Gaussianity and power asymmetry with quantum gravitational effects in loop quantum cosmology. Physical Review D, 2018, 97, .	4.7	25
15	Numerical solution of degenerate stochastic Kawarada equations via a semi-discretized approach. Applied Mathematics and Computation, 2018, 325, 210-226.	2.2	13
16	A compact adaptive approach for degenerate singular reaction–diffusion equations. Numerical Methods for Partial Differential Equations, 2018, 34, 1166-1187.	3.6	8
17	Discrete Dynamics of Fractional Systems: Theory and Numerical Techniques. Discrete Dynamics in Nature and Society, 2018, 2018, 1-1.	0.9	0
18	Nonuniform Crank–Nicolson scheme for solving the stochastic Kawarada equation via arbitrary grids. Numerical Methods for Partial Differential Equations, 2017, 33, 1305-1328.	3.6	7

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19	An energy-preserving Crank-Nicolson Galerkin method for Hamiltonian partial differential equations. Numerical Methods for Partial Differential Equations, 2016, 32, 1485-1504.	3.6	8
20	Stability of a modified Peaceman–Rachford method for the paraxial Helmholtz equation on adaptive grids. Journal of Computational Physics, 2016, 325, 259-271.	3.8	2
21	On the positivity, monotonicity, and stability of a semi-adaptive LOD method for solving three-dimensional degenerate Kawarada equations. Journal of Mathematical Analysis and Applications, 2016, 439, 465-480.	1.0	8
22	The Legacy of ADI and LOD Methods and an Operator Splitting Algorithm for Solving Highly Oscillatory Wave Problems. Springer Proceedings in Mathematics and Statistics, 2016, , 215-230.	0.2	1
23	High-order primordial perturbations with quantum gravitational effects. Physical Review D, 2016, 93, .	4.7	24
24	A continuing exploration of a decomposed compact method for highly oscillatory wave problems. Journal of Computational and Applied Mathematics, 2016, 299, 207-220.	2.0	4
25	ADI, LOD and Modern Decomposition Methods for Certain Multiphysics Applications. Journal of Algorithms and Computational Technology, 2015, 9, 105-120.	0.7	6
26	DETECTING QUANTUM GRAVITATIONAL EFFECTS OF LOOP QUANTUM COSMOLOGY IN THE EARLY UNIVERSE?. Astrophysical Journal Letters, 2015, 807, L17.	8.3	24
27	Preconditioned iterative methods for fractional diffusion models in finance. Numerical Methods for Partial Differential Equations, 2015, 31, 1382-1395.	3.6	16
28	A fully adaptive approximation for quenching–type reaction–diffusion equations over circular domains. Numerical Methods for Partial Differential Equations, 2014, 30, 472-489.	3.6	8
29	Exponential time differencing Crank–Nicolson method with a quartic spline approximation for nonlinear Schrödinger equations. Applied Mathematics and Computation, 2014, 235, 235-252.	2.2	11
30	Exponential splitting for n-dimensional paraxial Helmholtz equation with high wavenumbers. Computers and Mathematics With Applications, 2014, 68, 1341-1354.	2.7	5
31	Constructing analytical solutions of linear perturbations of inflation with modified dispersion relations. International Journal of Modern Physics A, 2014, 29, 1450142.	1.5	22
32	Solving degenerate quenching-combustion equations by an adaptive splitting method on evolving grids. Computers and Structures, 2013, 122, 33-43.	4.4	17
33	An adaptive splitting approach for the quenching solution of reaction–diffusion equations over nonuniform grids. Journal of Computational and Applied Mathematics, 2013, 241, 30-44.	2.0	22
34	Explorations and Expectations of Equidistribution Adaptations for Nonlinear Quenching Problems. Advances in Applied Mathematics and Mechanics, 2013, 5, 407-422.	1.2	3
35	A semi-adaptive compact splitting method for the numerical solution of 2-dimensional quenching problems. Applied Mathematics and Computation, 2012, 218, 11240-11254.	2.2	11
36	A short note on the asymptotic stability of an oscillation-free eikonal splitting method. Applied Mathematics Letters, 2012, 25, 1539-1543.	2.7	5

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37	A Revisit of the Semi-Adaptive Method for Singular Degenerate Reaction-Diffusion Equations. East Asian Journal on Applied Mathematics, 2012, 2, 185-203.	0.9	14
38	Asymptotic Stability of an Eikonal Transformation Based ADI Method for the Paraxial Helmholtz Equation at High Wave Numbers. Communications in Computational Physics, 2012, 12, 1275-1292.	1.7	11
39	An exponential transformation based splitting method for fast computations of highly oscillatory solutions. Journal of Computational and Applied Mathematics, 2011, 235, 4452-4463.	2.0	9
40	Adaptive decomposition finite difference methods for solving singular problems—A review. Frontiers of Mathematics in China, 2009, 4, 599-626.	0.7	25
41	An effective z-stretching method for paraxial light beam propagation simulations. Journal of Computational Physics, 2008, 227, 7264-7278.	3.8	10
42	Hybrid approximations via second-order crossed dynamic derivatives with the derivative. Nonlinear Analysis: Real World Applications, 2008, 9, 628-640.	1.7	7
43	On the monotonicity of an adaptive splitting scheme for two-dimensional singular reaction–diffusion equations. International Journal of Computer Mathematics, 2007, 84, 795-806.	1.8	5
44	Notes on the diamond-α dynamic derivative on time scales. Journal of Mathematical Analysis and Applications, 2007, 326, 228-241.	1.0	55
45	Description of light focusing by a spherical lens using diffraction integral method. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1023301-1023302.	0.2	5
46	Boundary data smoothness for solutions of nonlocal boundary value problems for second order differential equations. Journal of Mathematical Analysis and Applications, 2007, 333, 191-203.	1.0	9
47	A comparison of induction time and crystallization rate for syndiotactic polystyrene. Polymer Engineering and Science, 2002, 42, 694-706.	3.1	12
48	A Rectilinear Flow Model Approach to the Simulation of Injection Molding Process. Journal of Reinforced Plastics and Composites, 1997, 16, 1242-1251.	3.1	5
49	Solutions of n-point boundary value problems associated with nonlinear summary difference equations. Journal of Computational and Applied Mathematics, 1997, 80, 49-70.	2.0	6
50	Sharp integral inequalities in n independent variables. Nonlinear Analysis: Theory, Methods & Applications, 1996, 26, 179-210.	1.1	11
51	Global error estimates for exponential splitting. IMA Journal of Numerical Analysis, 1994, 14, 27-56.	2.9	35
52	Nonlinear variation of parameter methods for summary difference equations in several independent variables. Applied Mathematics and Computation, 1994, 61, 39-60.	2.2	5