Xiaofei Zhao

List of Publications by Year
in descending order

38 papers	627 citations	567281 15 h-index	642732 23 g-index
38 all docs	38 docs citations	38 times ranked	139 citing authors

#	Article	IF	Citations
1	Derivative-free high-order uniformly accurate schemes for highly oscillatory systems. IMA Journal of Numerical Analysis, 2022, 42, 1623-1644.	2.9	6
2	Optimal convergence of a second-order low-regularity integrator for the KdV equation. IMA Journal of Numerical Analysis, 2022, 42, 3499-3528.	2.9	12
3	Embedded exponential-type low-regularity integrators for KdV equation under rough data. BIT Numerical Mathematics, 2022, 62, 1049-1090.	2.0	13
4	Pseudospectral methods with PML for nonlinear Klein-Gordon equations in classical and non-relativistic regimes. Journal of Computational Physics, 2022, 448, 110728.	3.8	1
5	A symmetric low-regularity integrator for nonlinear Klein-Gordon equation. Mathematics of Computation, 2022, 91, 2215-2245.	2.1	9
6	An Embedded Exponential-Type Low-Regularity Integrator for mKdV Equation. SIAM Journal on Numerical Analysis, 2022, 60, 999-1025.	2.3	6
7	Splitting methods for nonlinear Dirac equations with Thirring type interaction in the nonrelativistic limit regime. Journal of Computational and Applied Mathematics, 2021, 387, 112494.	2.0	5
8	Error Estimates of Some Splitting Schemes for Charged-Particle Dynamics under Strong Magnetic Field. SIAM Journal on Numerical Analysis, 2021, 59, 2075-2105.	2.3	25
9	A uniformly first-order accurate method for Klein-Gordon-Zakharov system in simultaneous high-plasma-frequency and subsonic limit regime. Journal of Computational Physics, 2021, 428, 110064.	3.8	5
10	Numerical Integrators for Continuous Disordered Nonlinear SchrÃ¶dinger Equation. Journal of Scientific Computing, 2021, 89, 1.	2.3	3
11	On time-splitting methods for nonlinear SchrÃ¶dinger equation with highly oscillatory potential. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 1491-1508.	1.9	6
12	Low-regularity integrators for nonlinear Dirac equations. Mathematics of Computation, 2020, 90, 189-214.	2.1	24
13	Uniformly Accurate Methods for Three Dimensional Vlasov Equations under Strong Magnetic Field with Varying Direction. SIAM Journal of Scientific Computing, 2020, 42, B520-B547.	2.8	15
14	On the Rotating Nonlinear Klein--Gordon Equation: NonRelativistic Limit and Numerical Methods. Multiscale Modeling and Simulation, 2020, 18, 999-1024.	1.6	5
15	Comparison of numerical methods for the nonlinear Klein-Gordon equation in the nonrelativistic limit regime. Journal of Computational Physics, 2019, 398, 108886.	3.8	26
16	Uniformly accurate methods for Vlasov equations with non-homogeneous strong magnetic field. Mathematics of Computation, 2019, 88, 2697-2736.	2.1	14
17	Multiscale Particle-in-Cell methods and comparisons for the long-time two-dimensional Vlasovâ€“Poisson equation with strong magnetic field. Computer Physics Communications, 2018, 222, 136-151.	7.5	8
18	Unconditional and optimal H 2-error estimates of two linear and conservative finite difference schemes for the Klein-Gordon-SchrÃ¶dinger equation in high dimensions. Advances in Computational Mathematics, 2018, 44, 477-503.	1.6	41

#	Article	IF	Citations
19	Numerical methods for the two-dimensional Vlasovâ€“Poisson equation in the finite Larmor radius approximation regime. Journal of Computational Physics, 2018, 375, 619-640.	3.8	9
20	Modulation equations approach for solving vortex and radiation in nonlinear SchrÃ¶dinger equation. IMA Journal of Applied Mathematics, 2018, 83, 496-513.	1.6	1
21	Unconditional $$L^{infty }$$ L âˆž -convergence of two compact conservative finite difference schemes for the nonlinear SchrÃ¶dinger equation in multi-dimensions. Calcolo, 2018, 55, 1.	1.1	11
22	A uniformly accurate (UA) multiscale time integrator Fourier pseudospectral method for the Kleinâ€“Gordonâ€“SchrÃ¶dinger equations in the nonrelativistic limit regime. Numerische Mathematik, 2017, 135, 833-873.	1.9	35
23	Uniformly Accurate Forward Semi-Lagrangian Methods for Highly Oscillatory Vlasov--Poisson Equations. Multiscale Modeling and Simulation, 2017, 15, 723-744.	1.6	10
24	A combination of multiscale time integrator and two-scale formulation for the nonlinear SchrÃ¶dinger equation with wave operator. Journal of Computational and Applied Mathematics, 2017, 326, 320-336.	2.0	7
25	Uniformly accurate multiscale time integrators for second order oscillatory differential equations with large initial data. BIT Numerical Mathematics, 2017, 57, 649-683.	2.0	5
26	Uniformly accurate Particle-in-Cell method for the long time solution of the two-dimensional Vlasovâ€“Poisson equation with uniform strong magnetic field. Journal of Computational Physics, 2017, 346, 172-190.	3.8	24
27	Uniformly accurate numerical schemes for the nonlinear Dirac equation in the nonrelativistic limit regime. Communications in Mathematical Sciences, 2017, 15, 1107-1128.	1.0	19
28	On error estimates of an exponential wave integrator sine pseudospectral method for the ‹scp›K‹/scp›leinâ€“‹scp›G‹/scp›ordonâ€“‹scp›Z‹/scp›akharov system. Numerical Methods for Partial Differential Equations, 2016, 32, 266-291.	3.6	31
29	A uniformly accurate multiscale time integrator spectral method for the Kleinâ€“Gordonâ€“Zakharov system in the high-plasma-frequency limit regime. Journal of Computational Physics, 2016, 327, 270-293.	3.8	28
30	A modulation equations approach for numerically solving the moving soliton and radiation solutions of NLS. Physica D: Nonlinear Phenomena, 2016, 320, 77-88.	2.8	2
31	An Exponential Wave Integrator Pseudospectral Method for the Symmetric Regularized-Long-Wave Equation. Journal of Computational Mathematics, 2016, 34, 49-69.	0.4	14
32	On multichannel solutions of nonlinear SchrÃ¶dinger equations: algorithm, analysis and numerical explorations. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 135201.	2.1	6
33	Scalar-field theory of dark matter. International Journal of Modern Physics A, 2014, 29, 1450074.	1.5	18
34	Optimal l âˆž error estimates of finite difference methods for the coupled Gross-Pitaevskii equations in high dimensions. Science China Mathematics, 2014, 57, 2189-2214.	1.7	37
35	A Uniformly Accurate Multiscale Time Integrator Pseudospectral Method for the Klein–Gordon Equation in the Nonrelativistic Limit Regime. SIAM Journal on Numerical Analysis, 2014, 52, 2488-2511.	2.3	63
36	Numerical Methods and Simulations for the Dynamics of One-Dimensional Zakharovâ€“Rubenchik Equations. Journal of Scientific Computing, 2014, 59, 412-438.	2.3	8

#	Article	IF	Citations
37	On Time-Splitting Pseudospectral Discretization for Nonlinear Klein-Gordon Equation in Nonrelativistic Limit Regime. Communications in Computational Physics, 2014, 16, 440-466.	1.7	21
38	An Exponential Wave Integrator Sine Pseudospectral Method for the Klein--Gordon--Zakharov System. SIAM Journal of Scientific Computing, 2013, 35, A2903-A2927.	2.8	54