Jialin Hong

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11642045/publications.pdf

Version: 2024-02-01

88	1,477	304743 22	395702 33
papers	citations	h-index	g-index

89	89	89	371
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-symplectic Rungeâ€“Kutta methods for nonlinear Dirac equations. Journal of Computational Physics, 2006, 211, 448-472.	3.8	81
2	Explicit multi-symplectic methods for Kleinâ€“Gordonâ€“SchrÃ¶dinger equations. Journal of Computational Physics, 2009, 228, 3517-3532.	3.8	71
3	Splitting multisymplectic integrators for Maxwellâ€™s equations. Journal of Computational Physics, 2010, 229, 4259-4278.	3.8	65
4	Globally conservative properties and error estimation of a multi-symplectic scheme for SchrÃ¶dinger equations with variable coefficients. Applied Numerical Mathematics, 2006, 56, 814-843.	2.1	62
5	High-order compact splitting multisymplectic method for the coupled nonlinear SchrÃ¶dinger equations. Computers and Mathematics With Applications, 2011, 61, 319-333.	2.7	47
6	Exponential dichotomy and trichotomy for difference equations. Computers and Mathematics With Applications, 1999, 38, 41-49.	2.7	43
7	Strong convergence rates of semidiscrete splitting approximations for the stochastic Allenâ€“Cahn equation. IMA Journal of Numerical Analysis, 2019, 39, 2096-2134.	2.9	39
8	The multi-symplecticity of partitioned Runge-Kutta methods for Hamiltonian PDEs. Mathematics of Computation, 2005, 75, 167-182.	2.1	37
9	Strong convergence rate of finite difference approximations for stochastic cubic SchrÃ¶dinger equations. Journal of Differential Equations, 2017, 263, 3687-3713.	2.2	36
10	Strong and Weak Convergence Rates of a Spatial Approximation for Stochastic Partial Differential Equation with One-sided Lipschitz Coefficient. SIAM Journal on Numerical Analysis, 2019, 57, 1815-1841.	2.3	35
11	Multi-symplectic Rungeâ€“Kuttaâ€“NystrÃ¶m methods for nonlinear SchrÃ¶dinger equations with variable coefficients. Journal of Computational Physics, 2007, 226, 1968-1984.	3.8	33
12	Approximating Stochastic Evolution Equations with Additive White and Rough Noises. SIAM Journal on Numerical Analysis, 2017, 55, 1958-1981.	2.3	32
13	Discrete Gradient Approach to Stochastic Differential Equations with a Conserved Quantity. SIAM Journal on Numerical Analysis, 2011, 49, 2017-2038.	2.3	30
14	A stochastic multi-symplectic scheme for stochastic Maxwell equations with additive noise. Journal of Computational Physics, 2014, 268, 255-268.	3.8	30
15	Almost periodic type solutions of differential equations with piecewise constant argument via almost periodic type sequences. Applied Mathematics Letters, 2000, 13, 131-137.	2.7	29
16	Almost periodic type solutions of some differential equations with piecewise constant argument. Nonlinear Analysis: Theory, Methods & Applications, 2001, 45, 661-688.	1.1	29
17	A novel numerical approach to simulating nonlinear SchrÃ¶dinger equations with varying coefficients. Applied Mathematics Letters, 2003, 16, 759-765.	2.7	29
18	Stochastic Multi-Symplectic Integrator for Stochastic Nonlinear SchrÃ¶dinger Equation. Communications in Computational Physics, 2013, 14, 393-411.	1.7	28

#	Article	IF	Citations
19	Preservation of quadratic invariants of stochastic differential equations via Rungeâ€“Kutta methods. Applied Numerical Mathematics, 2015, 87, 38-52.	2.1	28
20	Strong convergence rate of splitting schemes for stochastic nonlinear SchrÃ¶dinger equations. Journal of Differential Equations, 2019, 266, 5625-5663.	2.2	28
21	Preservation of physical properties of stochastic Maxwell equations with additive noise via stochastic multi-symplectic methods. Journal of Computational Physics, 2016, 306, 500-519.	3.8	27
22	Compact and efficient conservative schemes for coupled nonlinear <scp>S</scp>chrÃ¶dinger equations. Numerical Methods for Partial Differential Equations, 2015, 31, 1814-1843.	3.6	24
23	Energy-dissipation splitting finite-difference time-domain method for Maxwell equations with perfectly matched layers. Journal of Computational Physics, 2014, 269, 201-214.	3.8	23
24	Symplectic Runge–Kutta Semidiscretization for Stochastic SchrÃ¶dinger Equation. SIAM Journal on Numerical Analysis, 2016, 54, 2569-2593.	2.3	23
25	Two Energy-Conserved Splitting Methods for Three-Dimensional Time-Domain Maxwell's Equations and the Convergence Analysis. SIAM Journal on Numerical Analysis, 2015, 53, 1918-1940.	2.3	22
26	Stochastic symplectic and multi-symplectic methods for nonlinear SchrÃ¶dinger equation with white noise dispersion. Journal of Computational Physics, 2017, 342, 267-285.	3.8	22
27	High Order Conformal Symplectic and Ergodic Schemes for the Stochastic Langevin Equation via Generating Functions. SIAM Journal on Numerical Analysis, 2017, 55, 3006-3029.	2.3	22
28	Numerical comparison of five difference schemes for coupled Kleinâ€“Gordonâ€“SchrÃ¶dinger equations in quantum physics. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9125-9135.	2.1	21
29	Predictorâ€“corrector methods for a linear stochastic oscillator with additive noise. Mathematical and Computer Modelling, 2007, 46, 738-764.	2.0	19
30	Analysis of a Splitting Scheme for Damped Stochastic Nonlinear SchrÃ¶dinger Equation with Multiplicative Noise. SIAM Journal on Numerical Analysis, 2018, 56, 2045-2069.	2.3	19
31	Approximation of Invariant Measure for Damped Stochastic Nonlinear SchrÃ¶dinger Equation via an Ergodic Numerical Scheme. Potential Analysis, 2017, 46, 323-367.	0.9	18
32	Finite element approximations for second-order stochastic differential equation driven by fractional Brownian motion. IMA Journal of Numerical Analysis, 2018, 38, 184-197.	2.9	18
33	Generating functions for stochastic symplectic methods. Discrete and Continuous Dynamical Systems, 2014, 34, 1211-1228.	0.9	18
34	Projection methods for stochastic differential equations with conserved quantities. BIT Numerical Mathematics, 2016, 56, 1497-1518.	2.0	17
35	Stochastic symplectic Rungeâ€“Kutta methods for the strong approximation of Hamiltonian systems with additive noise. Journal of Computational and Applied Mathematics, 2017, 325, 134-148.	2.0	17
36	An energy-conserving method for stochastic Maxwell equations with multiplicative noise. Journal of Computational Physics, 2017, 351, 216-229.	3.8	17

#	Article	IF	Citations
37	Weak convergence and invariant measure of a full discretization for parabolic SPDEs with non-globally Lipschitz coefficients. Stochastic Processes and Their Applications, 2021, 134, 55-93.	0.9	17
38	Symplectic integrator for nonlinear high order SchrÃ¶dinger equation with a trapped term. Journal of Computational and Applied Mathematics, 2009, 231, 664-679.	2.0	16
39	Long-term numerical simulation of the interaction between a neutron field and a neutral meson field by a symplectic-preserving scheme. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 255207.	2.1	15
40	Construction of Symplectic Runge-Kutta Methods for Stochastic Hamiltonian Systems. Communications in Computational Physics, 2017, 21, 237-270.	1.7	15
41	Numerical Analysis on Ergodic Limit of Approximations for Stochastic NLS Equation via Multi-symplectic Scheme. SIAM Journal on Numerical Analysis, 2017, 55, 305-327.	2.3	15
42	Exponential integrators for stochastic Maxwell's equations driven by ItÃ´ noise. Journal of Computational Physics, 2020, 410, 109382.	3.8	15
43	Invariant Measures for Stochastic Nonlinear SchrÃ¶dinger Equations. Lecture Notes in Mathematics, 2019, , .	0.2	14
44	Multisymplecticity of the centred box discretization for hamiltonian PDEs with m â‰¥ 2 space dimensions. Applied Mathematics Letters, 2002, 15, 1005-1011.	2.7	13
45	Modified equations for weakly convergent stochastic symplectic schemes via their generating functions. BIT Numerical Mathematics, 2016, 56, 1131-1162.	2.0	12
46	Symplectic Rungeâ€“Kutta methods for Hamiltonian systems driven by Gaussian rough paths. Applied Numerical Mathematics, 2018, 129, 120-136.	2.1	12
47	Exponential trichotomy and a class of ergodic solutions of differential equations with ergodic perturbations. Applied Mathematics Letters, 1999, 12, 7-13.	2.7	11
48	Symplectic structure-preserving integrators for the two-dimensional Grossâ€“Pitaevskii equation for BEC. Journal of Computational and Applied Mathematics, 2011, 235, 4937-4948.	2.0	11
49	Strong Convergence of Full Discretization for Stochastic Cahn–Hilliard Equation Driven by Additive Noise. SIAM Journal on Numerical Analysis, 2021, 59, 2866-2899.	2.3	11
50	Almost periodic random sequences in probability. Journal of Mathematical Analysis and Applications, 2007, 336, 962-974.	1.0	10
51	Absolute continuity and numerical approximation of stochastic Cahnâ€“Hilliard equation with unbounded noise diffusion. Journal of Differential Equations, 2020, 269, 10143-10180.	2.2	10
52	Existence of a class of ergodic solutions implies exponential trichotomy. Applied Mathematics Letters, 1999, 12, 43-45.	2.7	9
53	A Compact Scheme for Coupled Stochastic Nonlinear SchrÃ¶dinger Equations. Communications in Computational Physics, 2017, 21, 93-125.	1.7	9
54	Multisymplecticity of the centred box scheme for a class of hamiltonian PDEs and an application to quasi-periodically solitary waves. Mathematical and Computer Modelling, 2004, 39, 1035-1047.	2.0	8

#	Article	IF	Citations
55	LOD-MS for Gross-Pitaevskii Equation in Bose-Einstein Condensates. Communications in Computational Physics, 2013, 14, 219-241.	1.7	8
56	Mean-Square Convergence of a Semidiscrete Scheme for Stochastic Maxwell Equations. SIAM Journal on Numerical Analysis, 2019, 57, 728-750.	2.3	8
57	Runge–Kutta Semidiscretizations for Stochastic Maxwell Equations with Additive Noise. SIAM Journal on Numerical Analysis, 2019, 57, 702-727.	2.3	8
58	Generating functions of multi-symplectic RK methods via DW Hamiltonâ€“Jacobi equations. Numerische Mathematik, 2008, 110, 491-519.	1.9	7
59	Explicit pseudo-symplectic methods for stochastic Hamiltonian systems. BIT Numerical Mathematics, 2018, 58, 163-178.	2.0	7
60	Optimal rate of convergence for two classes of schemes to stochastic differential equations driven by fractional Brownian motions. IMA Journal of Numerical Analysis, 2021, 41, 1608-1638.	2.9	6
61	Accuracy of classical conservation laws for Hamiltonian PDEs under Rungeâ€“Kutta discretizations. Numerische Mathematik, 2009, 112, 1-23.	1.9	5
62	Energy evolution of multi-symplectic methods for Maxwell equations with perfectly matched layer boundary. Journal of Mathematical Analysis and Applications, 2016, 439, 256-270.	1.0	5
63	Dynamic Evaluation of Free-Form Curves and Surfaces. SIAM Journal of Scientific Computing, 2017, 39, B424-B441.	2.8	4
64	A Review on Stochastic Multi-symplectic Methods for Stochastic Maxwell Equations. Communications on Applied Mathematics and Computation, 2019, 1, 467-501.	1.7	4
65	Energy and quadratic invariants preserving (EQUIP) multi-symplectic methods for Hamiltonian wave equations. Journal of Computational Physics, 2020, 418, 109599.	3.8	4
66	Density function of numerical solution of splitting AVF scheme for stochastic Langevin equation. , 0, , .		4
67	Stochastic differential equation with piecewise continuous arguments: Markov property, invariant measure and numerical approximation. Discrete and Continuous Dynamical Systems - Series B, 2023, 28, 765.	0.9	4
68	Numerical simulation of periodic and quasiperiodic solutions for nonautonomous Hamiltonian systems via the scheme preserving weak invariance. Computer Physics Communications, 2000, 131, 86-94.	7.5	3
69	Ergodic solutions via ergodic sequences. Nonlinear Analysis: Theory, Methods & Applications, 2000, 40, 265-277.	1.1	3
70	A Survey of Multi-symplectic Runge-Kutta Type Methods for Hamiltonian Partial Differential Equations. Series in Contemporary Applied Mathematics, 2006, , 71-113.	0.8	3
71	Stochastic multisymplectic integrator for stochastic KdV equation. AIP Conference Proceedings, 2012, , .	0.4	3
72	Local energyâ€•and momentumâ€preserving schemes for Kleinâ€Gordonâ€Schrödinger equations and convergence analysis. Numerical Methods for Partial Differential Equations, 2017, 33, 1329-1351.	3.6	3

#	Article	IF	Citations
73	Parareal Exponential $heta$-Scheme for Longtime Simulation of Stochastic SchrÃ¶dinger Equations with Weak Damping. SIAM Journal of Scientific Computing, 2019, 41, B1155-B1177.	2.8	3
74	Well-posedness and optimal regularity of stochastic evolution equations with multiplicative noises. Journal of Differential Equations, 2019, 266, 4712-4745.	2.2	3
75	Positivity-preserving symplectic methods for the stochastic Lotkaâ€“Volterra predator-prey model. BIT Numerical Mathematics, 2022, 62, 493-520.	2.0	3
76	Large Deviations Principles for Symplectic Discretizations of Stochastic Linear SchrÃ¶dinger Equation. Potential Analysis, 2023, 59, 971-1011.	0.9	3
77	Mean-square convergence of a symplectic local discontinuous Galerkin method applied to stochastic linear SchrÃ¶dinger equation. IMA Journal of Numerical Analysis, 0, , drw023.	2.9	2
78	Convergence of a $$heta $$ Î¸-scheme to solve the stochastic nonlinear SchrÃ¶dinger equation with Stratonovich noise. Stochastics and Partial Differential Equations: Analysis and Computations, 2016, 4, 274-318.	0.9	2
79	Modified averaged vector field methods preserving multiple invariants for conservative stochastic differential equations. BIT Numerical Mathematics, 2020, 60, 917-957.	2.0	2
80	Three kinds of novel multi-symplectic methods for stochastic Hamiltonian partial differential equations. Journal of Computational Physics, 2022, 467, 111453.	3.8	2
81	Stochastic multi-symplectic wavelet collocation method for stochastic Hamiltonian Maxwell's equations. , 2012, , .		1
82	Solvability of concatenated Rungeâ€“Kutta equations for second-order nonlinear PDEs. Journal of Computational and Applied Mathematics, 2013, 245, 232-241.	2.0	1
83	Optimal regularity of stochastic evolution equations in M-type 2 Banach spaces. Journal of Differential Equations, 2019, 267, 1955-1971.	2.2	1
84	Dynamic Evaluation of Exponential Polynomial Curves and Surfaces via Basis Transformation. SIAM Journal of Scientific Computing, 2019, 41, A3401-A3420.	2.8	1
85	Weak intermittency of stochastic heat equation under discretizations. Journal of Differential Equations, 2022, 333, 268-301.	2.2	1
86	A class of ergodic solutions of nonlinear differential equations and numerical treatment. Mathematical and Computer Modelling, 2000, 32, 493-506.	2.0	0
87	Solvability of the central box scheme for a kind of nonlinear partial differential equations. , 2012, , .		0
88	Optimal HÃ¶lder continuity and hitting probabilities for SPDEs with rough fractional noises. Journal of Mathematical Analysis and Applications, 2022, 512, 126125.	1.0	0