David Cohen

List of Publications by Year
in descending order

33	968	516710 16	454955 30
papers	citations	h-index	g-index

33	33	33	305
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conservation of energy, momentum and actions in numerical discretizations of non-linear wave equations. Numerische Mathematik, 2008, 110, 113-143.	1.9	98
2	Linear energy-preserving integrators forÂPoisson systems. BIT Numerical Mathematics, 2011, 51, 91-101.	2.0	97
3	Symmetric Exponential Integrators with an Application to the Cubic SchrÃ¶dinger Equation. Foundations of Computational Mathematics, 2008, 8, 303-317.	2.5	78
4	Multi-symplectic integration of the Camassaâ€“Holm equation. Journal of Computational Physics, 2008, 227, 5492-5512.	3.8	67
5	Numerical Energy Conservation for Multi-Frequency Oscillatory Differential Equations. BIT Numerical Mathematics, 2005, 45, 287-305.	2.0	56
6	Modulated Fourier Expansions of Highly Oscillatory Differential Equations. Foundations of Computational Mathematics, 2003, 3, 327-345.	2.5	50
7	Long-Time Analysis of Nonlinearly Perturbed Wave Equations Via Modulated Fourier Expansions. Archive for Rational Mechanics and Analysis, 2008, 187, 341-368.	2.4	46
8	A Trigonometric Method for the Linear Stochastic Wave Equation. SIAM Journal on Numerical Analysis, 2013, 51, 204-222.	2.3	46
9	Full Discretization of Semilinear Stochastic Wave Equations Driven by Multiplicative Noise. SIAM Journal on Numerical Analysis, 2016, 54, 1093-1119.	2.3	43
10	On the numerical discretisation of stochastic oscillators. Mathematics and Computers in Simulation, 2012, 82, 1478-1495.	4.4	41
11	High Weak Order Methods for Stochastic Differential Equations Based on Modified Equations. SIAM Journal of Scientific Computing, 2012, 34, A1800-A1823.	2.8	40
12	Numerical Integrators for Highly Oscillatory Hamiltonian Systems: A Review. , 2006, , 553-576.		40
13	One-stage exponential integrators for nonlinear SchrÃ¶dinger equations over long times. BIT Numerical Mathematics, 2012, 52, 877-903.	2.0	34
14	Drift-preserving numerical integrators for stochastic Hamiltonian systems. Advances in Computational Mathematics, 2020, 46, 1.	1.6	31
15	Energy-preserving integrators for stochastic Poisson systems. Communications in Mathematical Sciences, 2014, 12, 1523-1539.	1.0	30
16	Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations. Numerische Mathematik, 2012, 121, 1-29.	1.9	26
17	Conservation properties of numerical integrators for highly oscillatory Hamiltonian systems. IMA Journal of Numerical Analysis, 2006, 26, 34-59.	2.9	24
18	A fully discrete approximation of the one-dimensional stochastic heat equation. IMA Journal of Numerical Analysis, 2020, 40, 247-284.	2.9	16

#	Article	IF	Citations
19	Weak Second Order Explicit Exponential Runge–Kutta Methods for Stochastic Differential Equations. SIAM Journal of Scientific Computing, 2017, 39, A2857-A2878.	2.8	15
20	Exponential integrators for stochastic Maxwell's equations driven by ItÃ´ noise. Journal of Computational Physics, 2020, 410, 109382.	3.8	15
21	Long-term analysis of numerical integrators for oscillatory Hamiltonian systems under minimal non-resonance conditions. BIT Numerical Mathematics, 2015, 55, 705-732.	2.0	13
22	Geometric finite difference schemes for the generalized hyperelastic-rod wave equation. Journal of Computational and Applied Mathematics, 2011, 235, 1925-1940.	2.0	12
23	A multi-symplectic numerical integrator for the two-component Camassaâ€“Holm equation. Journal of Nonlinear Mathematical Physics, 2014, 21, 442.	1.3	12
24	Drift-preserving numerical integrators for stochastic Poisson systems. International Journal of Computer Mathematics, 2022, 99, 4-20.	1.8	10
25	Geometric numerical integrators for Hunterâ€“Saxton-like equations. Japan Journal of Industrial and Applied Mathematics, 2017, 34, 441-472.	0.9	6
26	Convergent numerical schemes for the compressible hyperelastic rod wave equation. Numerische Mathematik, 2012, 122, 1-59.	1.9	4
27	High order numerical integrators for single integrand Stratonovich SDEs. Applied Numerical Mathematics, 2020, 158, 264-270.	2.1	4
28	A fully discrete approximation of the one-dimensional stochastic wave equation. IMA Journal of Numerical Analysis, 0, , drv006.	2.9	3
29	Exponential integrators for nonlinear SchrÃ¶dinger equations with white noise dispersion. Stochastics and Partial Differential Equations: Analysis and Computations, 2017, 5, 592-613.	0.9	3
30	Strong Rates of Convergence of a Splitting Scheme for SchrÃ¶dinger Equations with Nonlocal Interaction Cubic Nonlinearity and White Noise Dispersion. SIAM-ASA Journal on Uncertainty Quantification, 2022, 10, 453-480.	2.0	3
31	High order numerical methods for highly oscillatory problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 695-711.	1.9	2
32	MultiSymplectic Discretization of Wave Map Equations. SIAM Journal of Scientific Computing, 2016, 38, A953-A972.	2.8	2
33	Numerical discretisations of stochastic wave equations. AIP Conference Proceedings, 2018, , .	0.4	1