BegoÃ±a Cano

List of Publications by Year
in descending order

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39 papers	396 citations	840776 11 h-index	794594 19 g-index
39 all docs	39 docs citations	39 times ranked	147 citing authors

#	Article	IF	Citations
1	Conserved quantities of some Hamiltonian wave equations after full discretization. Numerische Mathematik, 2006, 103, 197-223.	1.9	63
2	Error Growth in the Numerical Integration of Periodic Orbits, with Application to Hamiltonian and Reversible Systems. SIAM Journal on Numerical Analysis, 1997, 34, 1391-1417.	2.3	47
3	Error growth in the numerical integration of periodic orbits by multistep methods, with application to reversible systems. IMA Journal of Numerical Analysis, 1998, 18, 57-75.	2.9	28
4	Spectral-fractional step Runge--Kutta discretizations for initial boundary value problems with time dependent boundary conditions. Mathematics of Computation, 2004, 73, 1801-1826.	2.1	24
5	Spectral/Rosenbrock discretizations without order reduction for linear parabolic problems. Applied Numerical Mathematics, 2002, 41, 247-268.	2.1	19
6	Multistep cosine methods for second-order partial differential systems. IMA Journal of Numerical Analysis, 2010, 30, 431-461.	2.9	19
7	Conservation of invariants by symmetric multistep cosine methods for second-order partial differential equations. BIT Numerical Mathematics, 2013, 53, 29-56.	2.0	16
8	Stability of Rungeâ€"Kuttaâ€"NystrÃ¶m methods. Journal of Computational and Applied Mathematics, 2006, 189, 120-131.	2.0	15
9	Exponential time integration of solitary waves of cubic SchrÃ¶dinger equation. Applied Numerical Mathematics, 2015, 91, 26-45.	2.1	15
10	Projected explicit lawson methods for the integration of SchrÃ¶dinger equation. Numerical Methods for Partial Differential Equations, 2015, 31, 78-104.	3.6	13
11	Avoiding order reduction when integrating reactionâ€"diffusion boundary value problems with exponential splitting methods. Journal of Computational and Applied Mathematics, 2019, 357, 228-250.	2.0	12
12	Order reduction and how to avoid it when explicit Rungeâ€"Kuttaâ€"NystrÃ¶m methods are used to solve linear partial differential equations. Journal of Computational and Applied Mathematics, 2005, 176, 293-318.	2.0	11
13	Stiff Oscillatory Systems, Delta Jumps and White Noise. Foundations of Computational Mathematics, 2001, 1, 69-100.	2.5	10
14	Avoiding Order Reduction of Rungeâ€"Kutta Discretizations for Linear Time-Dependent Parabolic Problems. BIT Numerical Mathematics, 2004, 44, 1-20.	2.0	9
15	Analysis of order reduction when integrating linear initial boundary value problems with Lawson methods. Applied Numerical Mathematics, 2017, 118, 64-74.	2.1	9
16	Avoiding order reduction when integrating linear initial boundary value problems with exponential splitting methods. IMA Journal of Numerical Analysis, 2018, 38, 1294-1323.	2.9	9
17	Optimal time order when implicit Rungeâ€"Kuttaâ€"NystrÃ¶m methods solve linear partial differential equations. Applied Numerical Mathematics, 2008, 58, 539-562.	2.1	8
18	Underresolved Simulations of Heat Baths. Journal of Computational Physics, 2001, 169, 193-214.	3.8	7

#	Article	IF	Citations
19	The stability of rational approximations of cosine functions on Hilbert spaces. Applied Numerical Mathematics, 2009, 59, 21-38.	2.1	7
20	Avoiding order reduction when integrating nonlinear SchrÃ¶dinger equation with Strang method. Journal of Computational and Applied Mathematics, 2017, 316, 86-99.	2.0	7
21	A technique to construct symmetric variable-stepsize linear multistep methods for second-order systems. Mathematics of Computation, 2003, 72, 1803-1817.	2.1	6
22	High-order symmetric multistep cosine methods. Applied Numerical Mathematics, 2013, 66, 30-44.	2.1	6
23	A comparison of symplectic and Hamilton's principle algorithms for autonomous and non-autonomous systems of ordinary differential equations. Applied Numerical Mathematics, 2001, 39, 289-306.	2.1	5
24	Analysis of variable-stepsize linear multistep methods with special emphasis on symmetric ones. Mathematics of Computation, 2003, 72, 1769-1802.	2.1	5
25	Stable Rungeâ€"Kuttaâ€"NystrÃ¶m methods for dissipative stiff problems. Numerical Algorithms, 2006, 42, 193-203.	1.9	4
26	How to avoid order reduction when Lawson methods integrate nonlinear initial boundary value problems. BIT Numerical Mathematics, 2022, 62, 431-463.	2.0	4
27	Efficient Time Integration of Nonlinear Partial Differential Equations by Means of Rosenbrock Methods. Mathematics, 2021, 9, 1970.	2.2	4
28	A generalization to variable stepsizes of StÃ¶rmer methods for second-order differential equations. Applied Numerical Mathematics, 1996, 19, 401-417.	2.1	3
29	Avoiding order reduction when integrating linear initial boundary value problems with Lawson methods. IMA Journal of Numerical Analysis, 0, , drw052.	2.9	3
30	Comparison of efficiency among different techniques to avoid order reduction with Strang splitting. Numerical Methods for Partial Differential Equations, 2021, 37, 854-873.	3.6	3
31	A Technique to Improve the Error Propagation when Integrating Relative Equilibria. BIT Numerical Mathematics, 2004, 44, 215-235.	2.0	2
32	Exponential Methods for the Time Integration of SchroÌˆdinger Equation. , 2010, , .		1
33	On nonparaxial nonlinear SchrÃ¶dinger-type equations. Journal of Computational and Applied Mathematics, 2020, 373, 112163.	2.0	1
34	A modified Gautschiâ€™s method without order reduction when integrating boundary value nonlinear wave problems. Applied Mathematics and Computation, 2020, 373, 125022.	2.2	1
35	Construction and Analysis of High Order Symmetric Multistep Cosine Methods. , 2010, , .		0
36	Efficient numerical solvers for the nonlinear beam and wave equations. Journal of Physics: Conference Series, 2013, 410, 012023.	0.4	0

#	Article	IF	Citations
37	Why Improving the Accuracy of Exponential Integrators Can Decrease Their Computational Cost?. Mathematics, 2021, 9, 1008.	2.2	0
38	Variable Stepsizes in Symmetric Linear Multistep Methods. Lecture Notes in Computer Science, 2001, , 144-152.	1.3	0
39	CMMSE: Analysis of order reduction when Lawson methods integrate nonlinear initial boundary value problems. Mathematical Methods in the Applied Sciences, 0, , .	2.3	0