Isaias Alonso-Mallo

List of Publications by Year
in descending order

32	330	933447 10	940533 16
papers	citations	h-index	g-index

32	32	32	98
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Integrating Semilinear Wave Problems with Time-Dependent Boundary Values Using Arbitrarily High-Order Splitting Methods. Mathematics, 2021, 9, 1113.	2.2	1
2	Efficient Time Integration of Nonlinear Partial Differential Equations by Means of Rosenbrock Methods. Mathematics, 2021, 9, 1970.	2.2	4
3	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
4	Time exponential splitting integrator for the Kleinâ€“Gordon equation with free parameters in the Hagstromâ€“Warburton absorbing boundary conditions. Journal of Computational and Applied Mathematics, 2018, 333, 185-199.	2.0	2
5	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
6	Analysis of order reduction when integrating linear initial boundary value problems with Lawson methods. Applied Numerical Mathematics, 2017, 118, 64-74.	2.1	9
7	Time exponential splitting technique for the Kleinâ€“Gordon equation with Hagstromâ€“Warburton high-order absorbing boundary conditions. Journal of Computational Physics, 2016, 311, 196-212.	3.8	6
8	Absorbing boundary conditions and geometric integration: A case study for the wave equation. Mathematics and Computers in Simulation, 2015, 111, 1-16.	4.4	5
9	Numerical detection and generation of solitary waves for a nonlinear wave equation. Wave Motion, 2015, 56, 137-146.	2.0	6
10	A proof of the well posedness of discretized wave equation with an absorbing boundary condition. Journal of Numerical Mathematics, 2014, 22, .	3.5	4
11	High order full discretizations of coupled wave equations with absorbing boundary conditions and geometric integration. Journal of Computational Physics, 2014, 265, 16-33.	3.8	3
12	A self-adjusting algorithm for solitary wave simulations. International Journal of Computer Mathematics, 2013, 90, 2174-2184.	1.8	1
13	Simulation of coherent structures in nonlinear SchrÃ¶dinger-type equations. Journal of Computational Physics, 2010, 229, 8180-8198.	3.8	7
14	The stability of rational approximations of cosine functions on Hilbert spaces. Applied Numerical Mathematics, 2009, 59, 21-38.	2.1	7
15	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
16	Stability of Rungeâ€“Kuttaâ€“NystrÃ¶m methods. Journal of Computational and Applied Mathematics, 2006, 189, 120-131.	2.0	15
17	A high order finite element discretization with local absorbing boundary conditions of the linear SchrÃ¶dinger equation. Journal of Computational Physics, 2006, 220, 409-421.	3.8	10
18	Stable Rungeâ€“Kuttaâ€“NystrÃ¶m methods for dissipative stiff problems. Numerical Algorithms, 2006, 42, 193-203.	1.9	4

#	Article	IF	Citations
19	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
20	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
21	Avoiding Order Reduction of Rungeâ€“Kutta Discretizations for Linear Time-Dependent Parabolic Problems. BIT Numerical Mathematics, 2004, 44, 1-20.	2.0	9
22	Optimal orders of convergence for Rungeâ€“Kutta methods and linear, initial boundary value problems. Applied Numerical Mathematics, 2003, 44, 1-19.	2.1	16
23	Discrete Absorbing Boundary Conditions for SchrÃ¶dinger-Type Equations. Construction and Error Analysis. SIAM Journal on Numerical Analysis, 2003, 41, 1824-1850.	2.3	18
24	Discrete absorbing boundary conditions for SchrÃ¶dinger-type equations. Practical implementation. Mathematics of Computation, 2003, 73, 127-142.	2.1	9
25	Weak Ill-Posedness of Spatial Discretizations of Absorbing Boundary Conditions for SchrÃ¶dinger-Type Equations. SIAM Journal on Numerical Analysis, 2002, 40, 134-158.	2.3	31
26	Runge-Kutta methods without order reduction for linear initial boundary value problems. Numerische Mathematik, 2002, 91, 577-603.	1.9	32
27	Spectral/Rosenbrock discretizations without order reduction for linear parabolic problems. Applied Numerical Mathematics, 2002, 41, 247-268.	2.1	19
28	Rational methods with optimal order of convergence for partial differential equations. Applied Numerical Mathematics, 2000, 35, 265-292.	2.1	9
29	Explicit single step methods with optimal order of convergence for partial differential equations. Applied Numerical Mathematics, 1999, 31, 117-131.	2.1	8
30	On the convolution operators arising in the study of abstract initial boundary value problems. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1996, 126, 515-539.	1.2	10
31	Abstract initial boundary value problems. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1994, 124, 879-908.	1.2	18
32	Avoiding order reduction when integrating linear initial boundary value problems with Lawson methods. IMA Journal of Numerical Analysis, 0, , drw052.	2.9	3