Javier IbÃ¡Ã±ez

List of Publications by Year
in descending order

34 papers	269 citations	933447 10 h-index	996975 15 g-index
35 all docs	35 docs citations	35 times ranked	127 citing authors

#	Article	IF	Citations
1	On Bernoulli matrix polynomials and matrix exponential approximation. Journal of Computational and Applied Mathematics, 2022, 404, 113207.	2.0	8
2	On Bernoulli series approximation for the matrix cosine. Mathematical Methods in the Applied Sciences, 2022, 45, 3239-3253.	2.3	1
3	Two Taylor Algorithms for Computing the Action of the Matrix Exponential on a Vector. Algorithms, 2022, 15, 48.	2.1	2
4	New Hermite series expansion for computing the matrix hyperbolic cosine. Journal of Computational and Applied Mathematics, 2022, 408, 114084.	2.0	1
5	Advances in the Approximation of the Matrix Hyperbolic Tangent. Mathematics, 2021, 9, 1219.	2.2	7
6	Efficient Evaluation of Matrix Polynomials beyond the Patersonâ€“Stockmeyer Method. Mathematics, 2021, 9, 1600.	2.2	2
7	An Improved Taylor Algorithm for Computing the Matrix Logarithm. Mathematics, 2021, 9, 2018.	2.2	2
8	On the Approximated Solution of a Special Type of Nonlinear Third-Order Matrix Ordinary Differential Problem. Mathematics, 2021, 9, 2262.	2.2	1
9	Simulation of harmonic oscillators on the lattice. Mathematical Methods in the Applied Sciences, 2020, 43, 8237-8252.	2.3	0
10	An efficient and accurate algorithm for computing the matrix cosine based on new Hermite approximations. Journal of Computational and Applied Mathematics, 2019, 348, 1-13.	2.0	5
11	Boosting the computation of the matrix exponential. Applied Mathematics and Computation, 2019, 340, 206-220.	2.2	16
12	Fast Taylor polynomial evaluation for the computation of the matrix cosine. Journal of Computational and Applied Mathematics, 2019, 354, 641-650.	2.0	7
13	Computing matrix trigonometric functions with GPUs through Matlab. Journal of Supercomputing, 2019, 75, 1227-1240.	3.6	4
14	A new efficient and accurate spline algorithm for the matrix exponential computation. Journal of Computational and Applied Mathematics, 2018, 337, 354-365.	2.0	6
15	Efficient and accurate algorithms for computing matrix trigonometric functions. Journal of Computational and Applied Mathematics, 2017, 309, 325-332.	2.0	10
16	Two algorithms for computing the matrix cosine function. Applied Mathematics and Computation, 2017, 312, 66-77.	2.2	11
17	Solving engineering models using hyperbolic matrix functions. Applied Mathematical Modelling, 2016, 40, 2837-2844.	4.2	9
18	High performance computing of the matrix exponential. Journal of Computational and Applied Mathematics, 2016, 291, 370-379.	2.0	19

#	Article	IF	Citations
19	Numerical approximations of second-order matrix differential equations using higher degree splines. Linear and Multilinear Algebra, 2015, 63, 472-489.	1.0	2
20	Accurate and efficient matrix exponential computation. International Journal of Computer Mathematics, 2014, 91, 97-112.	1.8	13
21	Solving time-invariant differential matrix Riccati equations using GPGPU computing. Journal of Supercomputing, 2014, 70, 623-636.	3.6	1
22	Computing matrix functions arising in engineering models with orthogonal matrix polynomials. Mathematical and Computer Modelling, 2013, 57, 1738-1743.	2.0	11
23	Efficient computation of the matrix cosine. Applied Mathematics and Computation, 2013, 219, 7575-7585.	2.2	13
24	Numerical Solutions of Matrix Differential Models Using Higher-Order Matrix Splines. Mediterranean Journal of Mathematics, 2012, 9, 865-882.	0.8	3
25	Accurate matrix exponential computation to solve coupled differential models in engineering. Mathematical and Computer Modelling, 2011, 54, 1835-1840.	2.0	19
26	Solving differential matrix Riccati equations by a piecewise-linearized method based on diagonal PadÃ© approximants. Computer Physics Communications, 2011, 182, 669-678.	7.5	1
27	A piecewise-linearized algorithm based on the Krylov subspace for solving stiff ODEs. Journal of Computational and Applied Mathematics, 2011, 235, 1798-1804.	2.0	1
28	Efficient orthogonal matrix polynomial based method for computing matrix exponential. Applied Mathematics and Computation, 2011, 217, 6451-6463.	2.2	22
29	A family of BDF algorithms for solving Differential Matrix Riccati Equations using adaptive techniques. Procedia Computer Science, 2010, 1, 2569-2577.	2.0	18
30	Adamsâ€“Bashforth and Adamsâ€“Moulton methods for solving differential Riccati equations. Computers and Mathematics With Applications, 2010, 60, 3032-3045.	2.7	21
31	Computing matrix functions solving coupled differential models. Mathematical and Computer Modelling, 2009, 50, 831-839.	2.0	11
32	Solving Initial Value Problems for Ordinary Differential Equations by two approaches: BDF and piecewise-linearized methods. Computer Physics Communications, 2009, 180, 712-723.	7.5	9
33	Solving Differential Matrix Riccati Equations by a piecewise-linearized method based on the conmutant equation. Computer Physics Communications, 2009, 180, 2103-2114.	7.5	3
34	A GMRES-based BDF method for solving differential Riccati equations. Applied Mathematics and Computation, 2008, 196, 613-626.	2.2	10