## Juan Manuel PeÃ $\pm$ a

List of Publications by Year in descending order

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$1.6 \quad 1$

Accurate computations with Gram and Wronskian matrices of geometric and Poisson bases. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2022, 116, .
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Accurate computations with matrices related to bases \{tiề»t\}. Advances in Computational Mathematics,
2022, 48, .
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4 Stability properties of disk polynomials. Numerical Algorithms, 2021, 87, 119-135.
$1.9 \quad 1$

5 Error bounds for linear complementarity problems of \$\$B_\{pi \}^R\$\$-matrices. Computational and
Applied Mathematics, 2021, 40, 1.
$2.2 \quad 2$

6 High relative accuracy with matrices of <i>q</i>â€integers. Numerical Linear Algebra With Applications, 2021, 28, e2383.
$1.6 \quad 1$

7 Accurate bidiagonal decomposition and computations with generalized Pascal matrices. Journal of
Computational and Applied Mathematics, 2021, 391, 113443.
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8 Accurate determinants of some classes of matrices. Linear Algebra and Its Applications, 2021, 630, 1-14.
$0.9 \quad 0$

Algorithmic characterization of pentadiagonal ASSR matrices. International Journal of Computer
$9 \quad$ Mathematics, 2020, 97, 431-443.

Evaluation and subdivision algorithms for general classes of totally positive rational bases.
Computer Aided Geometric Design, 2020, 81, 101900.

11 Accurate bidiagonal decomposition of collocation matrices of weighted $̈ \bullet$ â€transformed systems.
Numerical Linear Algebra With Applications, 2020, 27, e2295.

Geometric Properties and Algorithms for Rational q-BÃ@zier Curves and Surfaces. Mathematics, 2020, 8, 541.
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Rank of Linear and Quadratic Combinations of Matrices. Electronic Journal of Linear Algebra, 2020, 36,
169-176.
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14 Bï€R-tensors. Linear Algebra and Its Applications, 2019, 581, 247-259.
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15 Accurate Algorithms for Bessel Matrices. Journal of Scientific Computing, 2019, 80, 1264-1278.
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12
Optimal interval length for the collocation of the Newton interpolation basis. Numerical
Algorithms, 2019, 82, 895-908.

Combined matrices of almost strictly sign regular matrices. Journal of Computational and Applied
2.0 Mathematics, 2019, 354, 144-151.

6
SVD update methods for large matrices and applications. Linear Algebra and Its Applications, 2019, 561, 41-62.
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Accurate computations with Laguerre matrices. Numerical Linear Algebra With Applications, 2019, 26,
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e2217.
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Comparing pivoting strategies for almost strictly sign regular matrices. Journal of Computational and Applied Mathematics, 2019, 354, 96-102.
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Optimal stability of the Lagrange formula and conditioning of the Newton formula. Journal of

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Approximation Theory, 2019, 238, 52-66.

On the asymptotic optimality of error bounds for some linear complementarity problems. Numerical
Algorithms, 2019, 80, 521-532.
Accurate computations with collocation matrices of a general class of bases. Numerical Linear Algebra With Applications, 2018, 25, e2184.
27 QR decomposition of almost strictly sign regular matrices. Journal of Computational and Applied Mathematics, 2017, 318, 646-657.2.0
28 Accurate computations with Lupa $\AA \ddot{\ddot{Y}}$ matrices. Applied Mathematics and Computation, 2017, 303, 171-177. ..... 2.2 ..... 12
29 Backward stability with almost strictly sign regular matrices. Journal of Computational and Applied Mathematics, 2017, 322, 71-80.
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Accurate bidiagonal decomposition of totally positive Cauchyâe"Vandermonde matrices and applications. Linear Algebra and Its Applications, 2017, 517, 63-84.
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32 B \$\$_pi ^R\$\$ І́ R-matrices and error bounds for linear complementarity problems. Calcolo, 2017, 54,
31 Critical lengths of cycloidal spaces are zeros of Bessel functions. Calcolo, 2017, 54, 1521-1531.
33 Similarity to totally positive matrices and accurate computations. Linear Algebra and Its Applications, 0.9 ..... 0 2016, 491, 317-327.2.2
35 Greville abscissae of totally positive bases. Computer Aided Geometric Design, 2016, 48, 60-74. ..... 1.2
B-Nekrasov matrices and error bounds for linear complementarity problems. Numerical Algorithms,
$2016,72,435-445$.
Monotonicity preserving representations of curves and surfaces. Applied Mathematics and Nonlinear
Sciences, 2016, 1, 517-528.
Accurate Computations with Collocation Matrices of q-Bernstein Polynomials. SIAM Journal on
Matrix Analysis and Applications, 2015, 36, 880-893.
42 Almost strictly totally negative matrices: An algorithmic characterization. Journal of Computational
and Applied Mathematics, 2015, 275, 238-246.
43
Eventually SDD matrices and eigenvalue localization. Applied Mathematics and Computation, 2015, 252,
$535-540$.
44 Accurate evaluation of BÃ©zier curves and surfaces and the Bernstein-Fourier algorithm. Applied
Mathematics and Computation, 2015, 271,113-122.
45 On the characterization of almost strictly sign regular matrices. Journal of Computational and
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| 59 | Conditioning and accurate computations with Pascal matrices. Journal of Computational and Applied Mathematics, 2013, 252, 21-26. | 2.0 | 25 |
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| 60 | Eigenvalue localization and pivoting strategies for Gaussian elimination. Applied Mathematics and Computation, 2013, 219, 7725-7729. | 2.2 | 4 |
| 61 | Accurate computations with collocation matrices of rational bases. Applied Mathematics and Computation, 2013, 219, 4354-4364. | 2.2 | 23 |
| 62 | Error bounds for the linear complementarity problem with a Î£-SDD matrix. Linear Algebra and Its Applications, 2013, 438, 1339-1346. | 0.9 | 24 |
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Progressive iteration approximation and the geometric algorithm. CAD Computer Aided Design, 2012,
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A note on matrices with maximal growth factor for Neville elimination. Journal of Computational and Applied Mathematics, 2012, 236, 2971-2974.
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Characterizations of Jacobi sign regular matrices. Linear Algebra and Its Applications, 2012, 436,
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On the progressive iteration approximation property and alternative iterations. Computer Aided
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Diagonal dominance, Schur complements and some classes of H-matrices and P-matrices. Advances in
Computational Mathematics, 2011, 35, 357-373.
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71 Preface: numerical and applied linear algebra. Advances in Computational Mathematics, 2011, 35, 99-102.
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& \text { Growth factors of pivoting strategies associated with Neville elimination. Journal of Computational } \\
& \text { and Applied Mathematics, } 2011,235,1755-1762 .
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77 A comparison of error bounds for linear complementarity problems of H-matrices. Linear Algebra and ..... 0.9 ..... 45
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A collection of examples where Neville elimination outperforms Gaussian elimination. Applied
Mathematics and Computation, 2010, 216, 2525-2533.$2.2 \quad 7$
Minimal sets alternative to minimal GerÅigorin sets. Applied Numerical Mathematics, 2010, 60, 442-451.
81 Running error for the evaluation of rational BÃ Ozier surfaces. Journal of Computational and Applied ..... 2.0
83 Optimal bases for a class of mixed spaces and their associated spline spaces. Computers and Mathematics With Applications, 2010, 59, 1509-1523.
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341-353.Eigenvalue bounds for some classes of <i>P</i>â€matrices. Numerical Linear Algebra With Applications,1.64
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Convexity preserving scattered data interpolation using Powellấ"Sabin elements. Computer Aided
Geometric Design, 2009, 26, 779-796. ( Sign consistent linear programming problems. Optimization, 2009, 58, 935-946. $\quad 1.2$
94 Eigenvalue Localization for Totally Positive Matrices. Lecture Notes in Control and Information
Roundoff errors for polynomial evaluation by a family of formulae. Computing (Vienna/New York),
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96 Decompositions of strictly sign regular matrices. Linear Algebra and Its Applications, 2008, 429,
109 Shape preservation regions for six-dimensional spaces. Advances in Computational Mathematics, 2007, ..... 1.6 ..... 12
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110 The work of Mariano Gasca. Advances in Computational Mathematics, 2007, 26, 1-8.
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Characterizations and Decompositions of Almost Strictly Positive Matrices. SIAM Journal on Matrix ..... 1.4 ..... 19
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Evaluation algorithms for multivariate polynomials in Bernsteinâ€"BÃ©zier form. Journal ofApproximation Theory, 2006, 143, 44-61.$4.8 \quad 6$
Running Error Analysis of Evaluation Algorithms for Bivariate Polynomials in Barycentric Bernstein
Form. Computing (Vienna/New York), 2006, 77, 97-111.
115 On the generalized Ball bases. Advances in Computational Mathematics, 2006, 24, 263-280.1.618
116 A note on the optimal stability of bases of univariate functions. Numerische Mathematik, 2006, 103,151-154.
117 Almost strict total positivity and a class of Hurwitz polynomials. Journal of Approximation Theory, 2005, 132, 212-223.
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118 Corner cutting systems. Computer Aided Geometric Design, 2005, 22, 81-97. ..... 1.2 ..... 8
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120 On Descartes' rules of signs and their exactness. Mathematische Nachrichten, 2005, 278, 1706-1713. ..... 0.8 ..... 4
121 Exclusion and Inclusion Intervals for the Real Eigenvalues of Positive Matrices. SIAM Journal on Matrix Analysis and Applications, 2005, 26, 908-917. ..... 1.4 ..... 14A stable test to check if a matrix is a nonsingular \$M\$-matrix. Mathematics of Computation, 2004, 73,2.16
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1.6 ..... 12123 Quadratic-Cycloidal Curves. Advances in Computational Mathematics, 2004, 20, 161-175.

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| 128 | On an alternative to Gerschgorin circles and ovals of Cassini. Numerische Mathematik, 2003, 95, 337-345. | 1.9 | 44 |
| 129 | Critical Length for Design Purposes and Extended Chebyshev Spaces. Constructive Approximation, 2003, 20, 55-71. | 3.0 | 71 |
| 130 | Simultaneous backward stability of Gauss and Gauss-Jordan elimination. Numerical Linear Algebra With Applications, 2003, 10, 317-321. | 1.6 | 4 |
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| 132 | On nonsingular sign regular matrices. Linear Algebra and Its Applications, 2003, 359, 91-100. | 0.9 | 22 |
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| 136 | On Zero-Preserving Linear Transformations. Journal of Mathematical Analysis and Applications, 2002, 266, 237-258. | 1.0 | 5 |
| 137 | On the optimal stability of bases of univariate functions. Numerische Mathematik, 2002, 91, 305-318. | 1.9 | 30 |
| 138 | A basis of C-BÃ©zier splines with optimal properties. Computer Aided Geometric Design, 2002, 19, 291-295. | 1.2 | 33 |
| 139 | Numerical evaluation of the pth derivative of Jacobi series. Applied Numerical Mathematics, 2002, 43, 335-357. | 2.1 | 16 |
| 140 | On Some Zero-Increasing Operators. Acta Mathematica Hungarica, 2002, 94, 173-198. | 0.5 | 3 |
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| 142 | Shape preserving alternatives to the rational BÃ©zier model. Computer Aided Geometric Design, 2001, 18, 37-60. | 1.2 | 130 |
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168 Local Decomposition of Refinable Spaces and Wavelets. Applied and Computational Harmonic Analysis, 1996, 3, 127-153.
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