Froilan M Dopico

List of Publications by Year in descending order

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430442 525886 46 835 18 27 citations g-index h-index papers 46 46 46 223 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Root polynomials and their role in the theory of matrix polynomials. Linear Algebra and Its Applications, 2020, 584, 37-78.	0.4	11
2	Local linearizations of rational matrices with application to rational approximations of nonlinear eigenvalue problems. Linear Algebra and Its Applications, 2020, 604, 441-475.	0.4	9
3	Generic Symmetric Matrix Polynomials with Bounded Rank and Fixed Odd Grade. SIAM Journal on Matrix Analysis and Applications, 2020, 41, 1033-1058.	0.7	2
4	Van Dooren's Index Sum Theorem and Rational Matrices with Prescribed Structural Data. SIAM Journal on Matrix Analysis and Applications, 2019, 40, 720-738.	0.7	2
5	Conditioning and backward errors of eigenvalues of homogeneous matrix polynomials under Möbius transformations. Mathematics of Computation, 2019, 89, 767-805.	1.1	1
6	Robustness and perturbations of minimal bases II: The case with given row degrees. Linear Algebra and Its Applications, 2019, 576, 268-300.	0.4	0
7	Quadratic realizability of palindromic matrix polynomials. Linear Algebra and Its Applications, 2019, 567, 202-262.	0.4	1
8	A compact rational Krylov method for largeâ€scale rational eigenvalue problems. Numerical Linear Algebra With Applications, 2019, 26, e2214.	0.9	6
9	Strong linearizations of rational matrices with polynomial part expressed in an orthogonal basis. Linear Algebra and Its Applications, 2019, 570, 1-45.	0.4	9
10	Block minimal bases â, "-ifications of matrix polynomials. Linear Algebra and Its Applications, 2019, 562, 163-204.	0.4	3
11	Robustness and perturbations of minimal bases. Linear Algebra and Its Applications, 2018, 542, 246-281.	0.4	7
12	Generic skew-symmetric matrix polynomials with fixed rank and fixed odd grade. Linear Algebra and Its Applications, 2018, 536, 1-18.	0.4	8
13	Structured backward error analysis of linearized structured polynomial eigenvalue problems. Mathematics of Computation, 2018, 88, 1189-1228.	1.1	10
14	Block Kronecker linearizations of matrix polynomials and their backward errors. Numerische Mathematik, 2018, 140, 373-426.	0.9	37
15	Eigenvalue condition numbers and pseudospectra of Fiedler matrices. Calcolo, 2017, 54, 319-365.	0.6	2
16	Linearizations of Hermitian Matrix Polynomials Preserving the Sign Characteristic. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 249-272.	0.7	7
17	An explicit description of the irreducible components of the set of matrix pencils with bounded normal rank. Linear Algebra and Its Applications, 2017, 520, 80-103.	0.4	3
18	Generic complete eigenstructures for sets of matrix polynomials with bounded rank and degree. Linear Algebra and Its Applications, 2017, 535, 213-230.	0.4	11

#	Article	IF	Citations
19	Generic Change of the Partial Multiplicities of Regular Matrix Pencils under Low-Rank Perturbations. SIAM Journal on Matrix Analysis and Applications, 2016, 37, 823-835.	0.7	20
20	Polynomial zigzag matrices, dual minimal bases, and the realization of completely singular polynomials. Linear Algebra and Its Applications, 2016, 488, 460-504.	0.4	10
21	Constructing strong â,, "-ifications from dual minimal bases. Linear Algebra and Its Applications, 2016, 495, 344-372.	0.4	7
22	Matrix Polynomials with Completely Prescribed Eigenstructure. SIAM Journal on Matrix Analysis and Applications, 2015, 36, 302-328.	0.7	24
23	New bounds for roots of polynomials based on Fiedler companion matrices. Linear Algebra and Its Applications, 2014, 451, 197-230.	0.4	10
24	Spectral equivalence of matrix polynomials and the Index Sum Theorem. Linear Algebra and Its Applications, 2014, 459, 264-333.	0.4	70
25	The solution of the equation <mml:math altimg="si1.gif" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="italic">AX</mml:mi><mml:mo>+</mml:mo><mml:msup><mml:mrow><mml:mi>X</mml:mi></mml:mrow></mml:msup></mml:mrow></mml:math>	ıml:044w>	<mml:mrow></mml:mrow>
26	Condition numbers for inversion of Fiedler companion matrices. Linear Algebra and Its Applications, 2013, 439, 944-981.	0.4	13
27	Accurate Solution of Structured Least Squares Problems via Rank-Revealing Decompositions. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 1112-1128.	0.7	18
28	Fiedler companion linearizations for rectangular matrix polynomials. Linear Algebra and Its Applications, 2012, 437, 957-991.	0.4	35
29	Recovery of Eigenvectors and Minimal Bases of Matrix Polynomials from Generalized Fiedler Linearizations. SIAM Journal on Matrix Analysis and Applications, 2011, 32, 463-483.	0.7	31
30	Palindromic companion forms for matrix polynomials of odd degree. Journal of Computational and Applied Mathematics, 2011, 236, 1464-1480.	1.1	32
31	Perturbation theory for the LDU factorization and accurate computations for diagonally dominant matrices. Numerische Mathematik, 2011, 119, 337-371.	0.9	26
32	The solution of the equation <mml:math altimg="si1.gif" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="italic">XA</mml:mi><mml:mo>+</mml:mo><mml:msup><mml:mrow><mml:mi></mml:mi></mml:mrow></mml:msup>AX</mml:mrow><mml:mrow><mml:mi>T</mml:mi></mml:mrow><td>0.4 > <mml:mo< td=""><td>37 >>=</td></mml:mo<></td></mml:math>	0.4 > <mml:mo< td=""><td>37 >>=</td></mml:mo<>	37 >>=
33	and its application to the theory of orbits. Linear Algebra and Its Applications, 2011, 434, 44-67. Fiedler Companion Linearizations and the Recovery of Minimal Indices. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2181-2204.	0.7	75
34	Implicit standard Jacobi gives high relative accuracy. Numerische Mathematik, 2009, 113, 519-553.	0.9	23
35	Low rank perturbation of regular matrix polynomials. Linear Algebra and Its Applications, 2009, 430, 579-586.	0.4	13
36	First order spectral perturbation theory of square singular matrix pencils. Linear Algebra and Its Applications, 2008, 429, 548-576.	0.4	17

#	Article	IF	CITATIONS
37	A Note on Generic Kronecker Orbits of Matrix Pencils with Fixed Rank. SIAM Journal on Matrix Analysis and Applications, 2008, 30, 491-496.	0.7	15
38	Low Rank Perturbation of Weierstrass Structure. SIAM Journal on Matrix Analysis and Applications, 2008, 30, 538-547.	0.7	35
39	Low Rank Perturbation of Kronecker Structures without Full Rank. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 496-529.	0.7	35
40	Accurate Symmetric Rank Revealing and Eigendecompositions of Symmetric Structured Matrices. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 1126-1156.	0.7	26
41	A Note on Multiplicative Backward Errors of Accurate SVD Algorithms. SIAM Journal on Matrix Analysis and Applications, 2004, 25, 1021-1031.	0.7	5
42	An Orthogonal High Relative Accuracy Algorithm for the Symmetric Eigenproblem. SIAM Journal on Matrix Analysis and Applications, 2003, 25, 301-351.	0.7	29
43	Low Rank Perturbation of Jordan Structure. SIAM Journal on Matrix Analysis and Applications, 2003, 25, 495-506.	0.7	51
44	Perturbation Theory for Simultaneous Bases of Singular Subspaces. BIT Numerical Mathematics, 2002, 42, 84-109.	1.0	1
45	A Note on Sin $\hat{\Gamma}$ Theorems for Singular Subspace Variations. BIT Numerical Mathematics, 2000, 40, 395-403.	1.0	20
46	Backward stability of polynomial root-finding using Fiedler companion matrices. IMA Journal of Numerical Analysis, 0, , dru057.	1.5	7