

Francoise Tisseur

List of Publications by Year in descending order

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docs citations

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times ranked

1442
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance impact of precision reduction in sparse linear systems solvers. PeerJ Computer Science, 2022, 8, e778.	4.5	3
2	Min-max elementwise backward error for roots of polynomials and a corresponding backward stable root finder. Linear Algebra and Its Applications, 2021, 623, 454-477.	0.9	2
3	The role of topology and mechanics in uniaxially growing cell networks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190523.	2.1	2
4	The Structured Condition Number of a Differentiable Map between Matrix Manifolds, with Applications. SIAM Journal on Matrix Analysis and Applications, 2019, 40, 774-799.	1.4	6
5	Filtering Frequencies in a Shift-and-Invert Lanczos Algorithm for the Dynamic Analysis of Structures. SIAM Journal of Scientific Computing, 2019, 41, B601-B624.	2.8	3
6	Max-Balanced Hungarian Scalings. SIAM Journal on Matrix Analysis and Applications, 2019, 40, 320-346.	1.4	4
7	Reduction of Matrix Polynomials to Simpler Forms. SIAM Journal on Matrix Analysis and Applications, 2018, 39, 148-177.	1.4	1
8	Polynomial eigenvalue solver based on tropically scaled Lagrange linearization. Linear Algebra and Its Applications, 2018, 542, 186-208.	0.9	8
9	Compact Two-Sided Krylov Methods for Nonlinear Eigenvalue Problems. SIAM Journal of Scientific Computing, 2018, 40, A2801-A2829.	2.8	6
10	A Max-Plus Approach to Incomplete Cholesky Factorization Preconditioners. SIAM Journal of Scientific Computing, 2018, 40, A1987-A2004.	2.8	4
11	The nonlinear eigenvalue problem. Acta Numerica, 2017, 26, 1-94.	10.7	128
12	Incomplete LU Preconditioner Based on Max-Plus Approximation of LU Factorization. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 1160-1189.	1.4	9
13	Improving the numerical stability of the Sakurai-Sugiura method for quadratic eigenvalue problems. JSIAM Letters, 2017, 9, 17-20.	0.5	8
14	On the sign characteristics of Hermitian matrix polynomials. Linear Algebra and Its Applications, 2016, 511, 328-364.	0.9	13
15	Efficient Block Preconditioning for a \mathcal{H}^1 Finite Element Discretization of the Dirichlet Biharmonic Problem. SIAM Journal of Scientific Computing, 2016, 38, A325-A345.	2.8	6
16	Algorithms for Hessenberg-Triangular Reduction of Fiedler Linearization of Matrix Polynomials. SIAM Journal of Scientific Computing, 2015, 37, C384-C414.	2.8	7
17	Tropical Roots as Approximations to Eigenvalues of Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2015, 36, 138-157.	1.4	16
18	Polynomial Eigenvalue Problems: Theory, Computation, and Structure. , 2015, , 319-348.		8

#	ARTICLE	IF	CITATIONS
19	Detecting the causes of ill-conditioning in structural finite element models. Computers and Structures, 2014, 133, 79-89.	4.4	23
20	Triangularizing matrix polynomials. Linear Algebra and Its Applications, 2013, 439, 1679-1699.	0.9	18
21	NLEVP. ACM Transactions on Mathematical Software, 2013, 39, 1-28.	2.9	177
22	Triangularizing Quadratic Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 312-337.	1.4	17
23	An algorithm for the complete solution of quadratic eigenvalue problems. ACM Transactions on Mathematical Software, 2013, 39, 1-19.	2.9	72
24	Hermitian quadratic matrix polynomials: Solvents and inverse problems. Linear Algebra and Its Applications, 2012, 436, 4017-4026.	0.9	9
25	Hermitian matrix polynomials with real eigenvalues of definite type. Part I: Classification. Linear Algebra and Its Applications, 2012, 436, 3954-3973.	0.9	26
26	Standard triples of structured matrix polynomials. Linear Algebra and Its Applications, 2012, 437, 817-834.	0.9	9
27	A framework for analyzing nonlinear eigenproblems and parametrized linear systems. Linear Algebra and Its Applications, 2011, 435, 623-640.	0.9	25
28	Deflating quadratic matrix polynomials with structure preserving transformations. Linear Algebra and Its Applications, 2011, 435, 464-479.	0.9	9
29	The Canonical Generalized Polar Decomposition. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2163-2180.	1.4	25
30	An Improved Arc Algorithm for Detecting Definite Hermitian Pairs. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 1131-1151.	1.4	24
31	Definite Matrix Polynomials and their Linearization by Definite Pencils. SIAM Journal on Matrix Analysis and Applications, 2009, 31, 478-502.	1.4	27
32	Detecting and Solving Hyperbolic Quadratic Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 2009, 30, 1593-1613.	1.4	23
33	Scaling, sensitivity and stability in the numerical solution of quadratic eigenvalue problems. International Journal for Numerical Methods in Engineering, 2008, 73, 344-360.	2.8	41
34	Backward Error of Polynomial Eigenproblems Solved by Linearization. SIAM Journal on Matrix Analysis and Applications, 2008, 29, 1218-1241.	1.4	73
35	Structured Mapping Problems for Matrices Associated with Scalar Products. Part I: Lie and Jordan Algebras. SIAM Journal on Matrix Analysis and Applications, 2008, 29, 1389-1410.	1.4	23
36	Symmetric Linearizations for Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 143-159.	1.4	93

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37	The Conditioning of Linearizations of Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 1005-1028.	1.4	83
38	Structured Eigenvalue Condition Numbers. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 1052-1068.	1.4	52
39	The Ehrlich–Aberth Method for the Nonsymmetric Tridiagonal Eigenvalue Problem. SIAM Journal on Matrix Analysis and Applications, 2005, 27, 153-175.	1.4	22
40	Structured Factorizations in Scalar Product Spaces. SIAM Journal on Matrix Analysis and Applications, 2005, 27, 821-850.	1.4	53
41	Functions Preserving Matrix Groups and Iterations for the Matrix Square Root. SIAM Journal on Matrix Analysis and Applications, 2005, 26, 849-877.	1.4	44
42	Tridiagonal-Diagonal Reduction of Symmetric Indefinite Pairs. SIAM Journal on Matrix Analysis and Applications, 2004, 26, 215-232.	1.4	14
43	Computing the Polar Decomposition and the Matrix Sign Decomposition in Matrix Groups. SIAM Journal on Matrix Analysis and Applications, 2004, 25, 1178-1192.	1.4	30
44	G-reflectors: analogues of Householder transformations in scalar product spaces. Linear Algebra and Its Applications, 2004, 385, 187-213.	0.9	26
45	Implicit Gamma Theorems (I): Pseudoroots and Pseudospectra. Foundations of Computational Mathematics, 2003, 3, 1-31.	2.5	4
46	Simultaneous tridiagonalization of two symmetric matrices. International Journal for Numerical Methods in Engineering, 2003, 57, 1643-1660.	2.8	10
47	Bounds for eigenvalues of matrix polynomials. Linear Algebra and Its Applications, 2003, 358, 5-22.	0.9	76
48	Perturbation theory for homogeneous polynomial eigenvalue problems. Linear Algebra and Its Applications, 2003, 358, 71-94.	0.9	53
49	A Chart of Backward Errors for Singly and Doubly Structured Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 2003, 24, 877-897.	1.4	40
50	More on pseudospectra for polynomial eigenvalue problems and applications in control theory. Linear Algebra and Its Applications, 2002, 351-352, 435-453.	0.9	42
51	Detecting a definite Hermitian pair and a hyperbolic or elliptic quadratic eigenvalue problem, and associated nearness problems. Linear Algebra and Its Applications, 2002, 351-352, 455-474.	0.9	53
52	The Quadratic Eigenvalue Problem. SIAM Review, 2001, 43, 235-286.	9.5	1,030
53	Stability of Structured Hamiltonian Eigensolvers. SIAM Journal on Matrix Analysis and Applications, 2001, 23, 103-125.	1.4	21
54	Structured Pseudospectra for Polynomial Eigenvalue Problems, with Applications. SIAM Journal on Matrix Analysis and Applications, 2001, 23, 187-208.	1.4	113

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55	Newton's Method in Floating Point Arithmetic and Iterative Refinement of Generalized Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 2001, 22, 1038-1057.	1.4	43
56	Analysis of the Cholesky Method with Iterative Refinement for Solving the Symmetric Definite Generalized Eigenproblem. SIAM Journal on Matrix Analysis and Applications, 2001, 23, 472-493.	1.4	22
57	Backward error and condition of polynomial eigenvalue problems. Linear Algebra and Its Applications, 2000, 309, 339-361.	0.9	195
58	A Block Algorithm for Matrix 1-Norm Estimation, with an Application to 1-Norm Pseudospectra. SIAM Journal on Matrix Analysis and Applications, 2000, 21, 1185-1201.	1.4	120
59	A Parallel Divide and Conquer Algorithm for the Symmetric Eigenvalue Problem on Distributed Memory Architectures. SIAM Journal of Scientific Computing, 1999, 20, 2223-2236.	2.8	63
60	Parallel Implementation of the Yau and Lu Method for Eigenvalue Computation. International Journal of High Performance Computing Applications, 1997, 11, 197-204.	1.5	0
61	Structured tools for structured matrices. Electronic Journal of Linear Algebra, 0, 10, .	0.6	41
62	Structured condition numbers and backward errors in scalar product spaces. Electronic Journal of Linear Algebra, 0, 15, .	0.6	6