

Luca Gemignani

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Computations with infinite Toeplitz matrices and polynomials. <i>Linear Algebra and Its Applications</i> , 2002, 343-344, 21-61.	0.9	69
2	Fast and stable QR eigenvalue algorithms for generalized companion matrices and secular equations. <i>Numerische Mathematik</i> , 2005, 100, 373-408.	1.9	69
3	Fast QR Eigenvalue Algorithms for Hessenberg Matrices Which Are Rank-One Perturbations of Unitary Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2007, 29, 566-585.	1.4	37
4	Bernstein-Bezoutian matrices. <i>Theoretical Computer Science</i> , 2004, 315, 319-333.	0.9	32
5	Inverse power and Durand-Kerner iterations for univariate polynomial root-finding. <i>Computers and Mathematics With Applications</i> , 2004, 47, 447-459.	2.7	30
6	A fast implicit QR eigenvalue algorithm for companion matrices. <i>Linear Algebra and Its Applications</i> , 2010, 432, 2006-2031.	0.9	29
7	From approximating to interpolatory non-stationary subdivision schemes with the same generation properties. <i>Advances in Computational Mathematics</i> , 2011, 35, 217-241.	1.6	28
8	Fast Parallel Computation of the Polynomial Remainder Sequence via Bezout and Hankel Matrices. <i>SIAM Journal on Computing</i> , 1995, 24, 63-77.	1.0	25
9	Orthogonal Rational Functions and Structured Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2005, 26, 810-829.	1.4	25
10	The Ehrlich-Aberth Method for the Nonsymmetric Tridiagonal Eigenvalue Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2005, 27, 153-175.	1.4	22
11	From symmetric subdivision masks of Hurwitz type to interpolatory subdivision masks. <i>Linear Algebra and Its Applications</i> , 2009, 431, 1971-1987.	0.9	22
12	Exponential pseudo-splines: Looking beyond exponential B-splines. <i>Journal of Mathematical Analysis and Applications</i> , 2016, 439, 32-56.	1.0	21
13	On the fast reduction of a quasiseparable matrix to Hessenberg and tridiagonal forms. <i>Linear Algebra and Its Applications</i> , 2007, 420, 86-101.	0.9	19
14	Effective Fast Algorithms for Polynomial Spectral Factorization. <i>Numerical Algorithms</i> , 2003, 34, 217-227.	1.9	18
15	A unitary Hessenberg QR-based algorithm via semiseparable matrices. <i>Journal of Computational and Applied Mathematics</i> , 2005, 184, 505-517.	2.0	16
16	A Lanczos-type algorithm for the QR factorization of regular Cauchy matrices. <i>Numerical Linear Algebra With Applications</i> , 2002, 9, 305-319.	1.6	15
17	Direct and Inverse Eigenvalue Problems for Diagonal-Plus-Semiseparable Matrices. <i>Numerical Algorithms</i> , 2003, 34, 313-324.	1.9	15
18	Factorization of analytic functions by means of Koenig's theorem and Toeplitz computations. <i>Numerische Mathematik</i> , 2001, 89, 49-82.	1.9	14

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19	Efficient eigenvalue computation for quasiseparable Hermitian matrices under low rank perturbations. <i>Numerical Algorithms</i> , 2008, 47, 253-273.	1.9	14
20	On the Complexity of Polynomial Zeros. <i>SIAM Journal on Computing</i> , 1992, 21, 781-799.	1.0	13
21	Fast fraction-free triangularization of Bezoutians with applications to sub-resultant chain computation. <i>Linear Algebra and Its Applications</i> , 1998, 284, 19-39.	0.9	13
22	Implicit QR with compression. <i>Indagationes Mathematicae</i> , 2012, 23, 733-761.	0.4	13
23	Structural and computational properties of possibly singular semiseparable matrices. <i>Linear Algebra and Its Applications</i> , 2002, 340, 183-198.	0.9	12
24	Structured matrix methods for CAGD: an application to computing the resultant of polynomials in the Bernstein basis. <i>Numerical Linear Algebra With Applications</i> , 2005, 12, 685-698.	1.6	11
25	Implicit QR for rank-structured matrix pencils. <i>BIT Numerical Mathematics</i> , 2014, 54, 85-111.	2.0	11
26	On the Euclidean scheme for polynomials having interlaced real zeros. , 1990, , .		11
27	Iteration schemes for the divide-and-conquer eigenvalue solver. <i>Numerische Mathematik</i> , 1994, 67, 403-425.	1.9	10
28	Orthogonal rational functions and diagonal-plus-semiseparable matrices. , 2002, , .		10
29	Rational interpolation via orthogonal polynomials. <i>Computers and Mathematics With Applications</i> , 1993, 26, 26-34.	2.7	9
30	Schur complements of Bezoutians and the inversion of block Hankel and block Toeplitz matrices. <i>Linear Algebra and Its Applications</i> , 1997, 253, 39-59.	0.9	9
31	The Ehrlichâ€Aberth method for palindromic matrix polynomials represented in the Dickson basis. <i>Linear Algebra and Its Applications</i> , 2013, 438, 1645-1666.	0.9	9
32	Fast inversion of Hankel and Toeplitz matrices. <i>Information Processing Letters</i> , 1992, 41, 119-123.	0.6	8
33	Solving Hankel Systems over the Integers. <i>Journal of Symbolic Computation</i> , 1994, 18, 573-584.	0.8	8
34	Efficient and stable solution of structured Hessenberg linear systems arising from difference equations. <i>Numerical Linear Algebra With Applications</i> , 2000, 7, 319-335.	1.6	8
35	Solving quadratic matrix equations and factoring polynomials: new fixed point iterations based on Schur complements of Toeplitz matrices. <i>Numerical Linear Algebra With Applications</i> , 2005, 12, 181-189.	1.6	8
36	Neville elimination for rank-structured matrices. <i>Linear Algebra and Its Applications</i> , 2008, 428, 978-991.	0.9	8

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37	Implicit QR for companion-like pencils. <i>Mathematics of Computation</i> , 2015, 85, 1753-1774.	2.1	8
38	Fast Hessenberg Reduction of Some Rank Structured Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017, 38, 574-598.	1.4	8
39	Computing the inertia of bezout and Hankel matrices. <i>Calcolo</i> , 1991, 28, 267-274.	1.1	7
40	Computationally efficient applications of the Euclidean algorithm to zero location. <i>Linear Algebra and Its Applications</i> , 1996, 249, 79-91.	0.9	7
41	The unitary completion and QR iterations for a class of structured matrices. <i>Mathematics of Computation</i> , 2008, 77, 353-378.	2.1	7
42	A CMV-Based Eigensolver for Companion Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2015, 36, 1046-1068.	1.4	7
43	Quasiseparable structures of companion pencils under the QZ-algorithm. <i>Calcolo</i> , 2005, 42, 215-226.	1.1	6
44	Structured matrix methods for polynomial root-finding. , 2007, , .		6
45	A constructive algebraic strategy for interpolatory subdivision schemes induced by bivariate box splines. <i>Advances in Computational Mathematics</i> , 2013, 39, 395-424.	1.6	6
46	A real QZ algorithm for structured companion pencils. <i>Calcolo</i> , 2017, 54, 1305-1338.	1.1	6
47	GCD of polynomials and Bezout matrices. , 1997, , .		5
48	Computing a Factor of a Polynomial by Means of Multishift LR Algorithms. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1998, 19, 161-181.	1.4	5
49	Fast QR factorization of Cauchy-like matrices. <i>Linear Algebra and Its Applications</i> , 2008, 428, 697-711.	0.9	5
50	Improved parallel computations with matrices and polynomials. <i>Lecture Notes in Computer Science</i> , 1991, , 520-531.	1.3	5
51	A fast algorithm for generalized Hankel matrices arising in finite-moment problems. <i>Linear Algebra and Its Applications</i> , 1997, 267, 41-52.	0.9	4
52	Computing a Hurwitz factorization of a polynomial. <i>Journal of Computational and Applied Mathematics</i> , 2000, 126, 369-380.	2.0	4
53	Fast and stable solution of banded-plus-semiseparable linear systems. <i>Calcolo</i> , 2002, 39, 201-217.	1.1	4
54	Compression of unitary rank-structured matrices to CMV-like shape with an application to polynomial rootfinding. <i>Journal of Computational and Applied Mathematics</i> , 2015, 278, 326-335.	2.0	4

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55	Fast QR iterations for unitary plus low rank matrices. <i>Numerische Mathematik</i> , 2020, 144, 23-53.	1.9	4
56	Computing the reciprocal of a Γ -function by rational approximation. <i>Advances in Computational Mathematics</i> , 2022, 48, 1.	1.6	4
57	A hybrid approach to the computation of the inertia of a parametric family of Bezoutians with application to some stability problems for bivariate polynomials. <i>Linear Algebra and Its Applications</i> , 1998, 283, 221-238.	0.9	3
58	Fast QR factorization of low-rank changes of Vandermonde-like matrices. <i>Calcolo</i> , 1999, 36, 1-15.	1.1	3
59	Efficient and Stable Solution of M-Matrix Linear Systems of (Block) Hessenberg Form. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003, 24, 852-876.	1.4	3
60	Structured eigenvalue problems for rational gauss quadrature. <i>Numerical Algorithms</i> , 2007, 45, 195-204.	1.9	3
61	Modifications of Newton's method for even-grade palindromic polynomials and other twined polynomials. <i>Numerical Algorithms</i> , 2012, 61, 315-329.	1.9	3
62	Efficient solution of parameter-dependent quasiseparable systems and computation of meromorphic matrix functions. <i>Numerical Linear Algebra With Applications</i> , 2018, 25, e2141.	1.6	3
63	Solving Bezout-like polynomial equations for the design of interpolatory subdivision schemes. , 2010, , .		3
64	Fast and stable computation of the barycentric representation of rational interpolants. <i>Calcolo</i> , 1996, 33, 371-388.	1.1	2
65	A fast iterative method for determining the stability of a polynomial. <i>Journal of Computational and Applied Mathematics</i> , 1996, 76, 1-11.	2.0	2
66	Chebyshev rational interpolation. <i>Numerical Algorithms</i> , 1997, 15, 91-110.	1.9	2
67	Polynomial root computation by means of the LR algorithm. <i>BIT Numerical Mathematics</i> , 1997, 37, 333-345.	2.0	2
68	Comparison theorems for splittings of M-matrices in (block) Hessenberg form. <i>BIT Numerical Mathematics</i> , 2022, 62, 849-867.	2.0	2
69	Bezout-like polynomial equations associated with dual univariate interpolating subdivision schemes. <i>Advances in Computational Mathematics</i> , 2022, 48, 1.	1.6	2
70	Iterative refinement techniques for the spectral factorization of polynomials. , 2002, , .		1
71	A superfast solver for Sylvester's resultant linear systems generated by a stable and an anti-stable polynomial. <i>Linear Algebra and Its Applications</i> , 2003, 366, 233-255.	0.9	1
72	Block tridiagonal reduction of perturbed normal and rank structured matrices. <i>Linear Algebra and Its Applications</i> , 2013, 439, 3505-3517.	0.9	1

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73	Accurate polynomial root-finding methods for symmetric tridiagonal matrix eigenproblems. Computers and Mathematics With Applications, 2016, 72, 992-1001.	2.7	1
74	Efficient Reduction of Compressed Unitary Plus Low Rank Matrices to Hessenberg Form. SIAM Journal on Matrix Analysis and Applications, 2020, 41, 984-1003.	1.4	1
75	Accelerating the Sinkhorn-Knopp iteration by Arnoldi-type methods. Calcolo, 2020, 57, 1.	1.1	1
76	QR-factorization of Displacement Structured Matrices Using a Rank Structured Matrix Approach. , 2010, , 229-254.		1
77	Rounding Error Analysis in Solving M-Matrix Linear Systems of Block Hessenberg Form. Numerical Algorithms, 2004, 36, 157-168.	1.9	0
78	On some classes of structured matrices with algebraic trigonometric eigenvalues. Applied Mathematics and Computation, 2011, 217, 7573-7578.	2.2	0
79	On the simultaneous refinement of the zeros of H-palindromic polynomials. Journal of Computational and Applied Mathematics, 2014, 272, 293-303.	2.0	0
80	A Fast Algorithm for Generalized Hankel Matrices Arising in Finite-Moment Problems. Linear Algebra and Its Applications, 1997, 267, 41-52.	0.9	0
81	Orthogonal Iterations on Companion-Like Pencils. Journal of Scientific Computing, 2022, 91, 1.	2.3	0