

Nicholas J Higham

List of Publications by Year in descending order

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184
papers

13,071
citations

34105

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45317

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g-index

205
all docs

205
docs citations

205
times ranked

6757
citing authors

#	ARTICLE	IF	CITATIONS
1	Solving block low-rank linear systems by LU factorization is numerically stable. IMA Journal of Numerical Analysis, 2022, 42, 951-980.	2.9	6
2	Performance impact of precision reduction in sparse linear systems solvers. PeerJ Computer Science, 2022, 8, e778.	4.5	3
3	Arbitrary Precision Algorithms for Computing the Matrix Cosine and its Fréchet Derivative. SIAM Journal on Matrix Analysis and Applications, 2022, 43, 233-256.	1.4	3
4	Stochastic rounding: implementation, error analysis and applications. Royal Society Open Science, 2022, 9, 211631.	2.4	17
5	Anymatrix: an extensible MATLAB matrix collection. Numerical Algorithms, 2022, 90, 1175-1196.	1.9	8
6	Optimizing and Factorizing the Wilson Matrix. American Mathematical Monthly, 2022, 129, 454-465.	0.3	0
7	Mixed precision algorithms in numerical linear algebra. Acta Numerica, 2022, 31, 347-414.	10.7	29
8	Accurately computing the log-sum-exp and softmax functions. IMA Journal of Numerical Analysis, 2021, 41, 2311-2330.	2.9	34
9	Generating Extreme-Scale Matrices With Specified Singular Values or Condition Number. SIAM Journal of Scientific Computing, 2021, 43, A663-A684.	2.8	4
10	Stochastic Rounding and Its Probabilistic Backward Error Analysis. SIAM Journal of Scientific Computing, 2021, 43, A566-A585.	2.8	26
11	Matrices with Tunable Infinity-Norm Condition Number and No Need for Pivoting in LU Factorization. SIAM Journal on Matrix Analysis and Applications, 2021, 42, 417-435.	1.4	3
12	Numerical behavior of NVIDIA tensor cores. PeerJ Computer Science, 2021, 7, e330.	4.5	19
13	A survey of numerical linear algebra methods utilizing mixed-precision arithmetic. International Journal of High Performance Computing Applications, 2021, 35, 344-369.	3.7	61
14	A Set of Batched Basic Linear Algebra Subprograms and LAPACK Routines. ACM Transactions on Mathematical Software, 2021, 47, 1-23.	2.9	16
15	Integer matrix factorisations, superalgebras and the quadratic form obstruction. Linear Algebra and Its Applications, 2021, 622, 250-267.	0.9	3
16	Random Matrices Generating Large Growth in LU Factorization with Pivoting. SIAM Journal on Matrix Analysis and Applications, 2021, 42, 185-201.	1.4	6
17	Exploiting Lower Precision Arithmetic in Solving Symmetric Positive Definite Linear Systems and Least Squares Problems. SIAM Journal of Scientific Computing, 2021, 43, A258-A277.	2.8	14
18	A Multiprecision Derivative-Free Schur-Parlett Algorithm for Computing Matrix Functions. SIAM Journal on Matrix Analysis and Applications, 2021, 42, 1401-1422.	1.4	5

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19	Sharper Probabilistic Backward Error Analysis for Basic Linear Algebra Kernels with Random Data. SIAM Journal of Scientific Computing, 2020, 42, A3427-A3446.	2.8	14
20	Mixed Precision Block Fused Multiply-Add: Error Analysis and Application to GPU Tensor Cores. SIAM Journal of Scientific Computing, 2020, 42, C124-C141.	2.8	29
21	A Class of Fast and Accurate Summation Algorithms. SIAM Journal of Scientific Computing, 2020, 42, A1541-A1557.	2.8	22
22	Numerical algorithms for high-performance computational science. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190066.	3.4	15
23	Mixed-precision iterative refinement using tensor cores on GPUs to accelerate solution of linear systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200110.	2.1	26
24	Three-Precision GMRES-Based Iterative Refinement for Least Squares Problems. SIAM Journal of Scientific Computing, 2020, 42, A4063-A4083.	2.8	17
25	Simulating Low Precision Floating-Point Arithmetic. SIAM Journal of Scientific Computing, 2019, 41, C585-C602.	2.8	39
26	A New Approach to Probabilistic Rounding Error Analysis. SIAM Journal of Scientific Computing, 2019, 41, A2815-A2835.	2.8	50
27	An Arbitrary Precision Scaling and Squaring Algorithm for the Matrix Exponential. SIAM Journal on Matrix Analysis and Applications, 2019, 40, 1233-1256.	1.4	13
28	A New Preconditioner that Exploits Low-Rank Approximations to Factorization Error. SIAM Journal of Scientific Computing, 2019, 41, A59-A82.	2.8	17
29	Squeezing a Matrix into Half Precision, with an Application to Solving Linear Systems. SIAM Journal of Scientific Computing, 2019, 41, A2536-A2551.	2.8	39
30	Adaptive precision in block-Jacobi preconditioning for iterative sparse linear system solvers. Concurrency Computation Practice and Experience, 2019, 31, e4460.	2.2	41
31	Explicit solutions to correlation matrix completion problems, with an application to risk management and insurance. Royal Society Open Science, 2018, 5, 172348.	2.4	6
32	Multiprecision Algorithms for Computing the Matrix Logarithm. SIAM Journal on Matrix Analysis and Applications, 2018, 39, 472-491.	1.4	16
33	Accelerating the Solution of Linear Systems by Iterative Refinement in Three Precisions. SIAM Journal of Scientific Computing, 2018, 40, A817-A847.	2.8	109
34	Harnessing GPU Tensor Cores for Fast FP16 Arithmetic to Speed up Mixed-Precision Iterative Refinement Solvers. , 2018, , .		104
35	Computing the Wave-Kernel Matrix Functions. SIAM Journal of Scientific Computing, 2018, 40, A4060-A4082.	2.8	8
36	Computing the Action of Trigonometric and Hyperbolic Matrix Functions. SIAM Journal of Scientific Computing, 2017, 39, A613-A627.	2.8	9

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37	The Design and Performance of Batched BLAS on Modern High-Performance Computing Systems. <i>Procedia Computer Science</i> , 2017, 108, 495-504.	2.0	50
38	Optimized Batched Linear Algebra for Modern Architectures. <i>Lecture Notes in Computer Science</i> , 2017, , 511-522.	1.3	6
39	A New Analysis of Iterative Refinement and Its Application to Accurate Solution of Ill-Conditioned Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 2017, 39, A2834-A2856.	2.8	70
40	UManSysProp v1.0: an online and open-source facility for molecular property prediction and atmospheric aerosol calculations. <i>Geoscientific Model Development</i> , 2016, 9, 899-914.	3.6	78
41	Estimating the Largest Elements of a Matrix. <i>SIAM Journal of Scientific Computing</i> , 2016, 38, C584-C601.	2.8	7
42	An algorithm to compute the polar decomposition of a 3×3 matrix. <i>Numerical Algorithms</i> , 2016, 73, 349-369.	1.9	14
43	Anderson acceleration of the alternating projections method for computing the nearest correlation matrix. <i>Numerical Algorithms</i> , 2016, 72, 1021-1042.	1.9	35
44	Restoring Definiteness via Shrinking, with an Application to Correlation Matrices with a Fixed Block. <i>SIAM Review</i> , 2016, 58, 245-263.	9.5	15
45	Bounds for the Distance to the Nearest Correlation Matrix. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016, 37, 1088-1102.	1.4	4
46	Matrix Inverse Trigonometric and Inverse Hyperbolic Functions: Theory and Algorithms. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016, 37, 1453-1477.	1.4	6
47	Ranking the Importance of Nuclear Reactions for Activation and Transmutation Events. <i>Nuclear Science and Engineering</i> , 2016, 184, 561-574.	1.1	2
48	Matching exponential-based and resolvent-based centrality measures. <i>Journal of Complex Networks</i> , 2016, 4, 157-176.	1.8	20
49	Testing Matrix Function Algorithms Using Identities. <i>ACM Transactions on Mathematical Software</i> , 2016, 42, 1-15.	2.9	4
50	New Directions in Numerical Computation. <i>Notices of the American Mathematical Society</i> , 2016, 63, 398-400.	0.2	1
51	Matrix Functions: Computation. , 2015, , 863-865.		0
52	An Algorithm for the Matrix Lambert W Function. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2015, 36, 669-685.	1.4	17
53	Matrix Functions: A Short Course. <i>Series in Contemporary Applied Mathematics</i> , 2015, , 1-27.	0.8	1
54	New Algorithms for Computing the Matrix Sine and Cosine Separately or Simultaneously. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, A456-A487.	2.8	27

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55	Estimating the Condition Number of the Fréchet Derivative of a Matrix Function. SIAM Journal of Scientific Computing, 2014, 36, C617-C634.	2.8	3
56	Covariance structure regularization via entropy loss function. Computational Statistics and Data Analysis, 2014, 72, 315-327.	1.2	28
57	Detecting the causes of ill-conditioning in structural finite element models. Computers and Structures, 2014, 133, 79-89.	4.4	23
58	The Matrix Unwinding Function, with an Application to Computing the Matrix Exponential. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 88-109.	1.4	13
59	Performance analysis of asynchronous Jacobi's method implemented in MPI, SHMEM and OpenMP. International Journal of High Performance Computing Applications, 2014, 28, 97-111.	3.7	21
60	Higher Order Fréchet Derivatives of Matrix Functions and the Level-2 Condition Number. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 1019-1037.	1.4	16
61	NLEVP. ACM Transactions on Mathematical Software, 2013, 39, 1-28.	2.9	177
62	An Improved Schur–Padé Algorithm for Fractional Powers of a Matrix and Their Fréchet Derivatives. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 1341-1360.	1.4	46
63	Computing the Fréchet Derivative of the Matrix Logarithm and Estimating the Condition Number. SIAM Journal of Scientific Computing, 2013, 35, C394-C410.	2.8	43
64	Stable and Efficient Spectral Divide and Conquer Algorithms for the Symmetric Eigenvalue Decomposition and the SVD. SIAM Journal of Scientific Computing, 2013, 35, A1325-A1349.	2.8	62
65	Reducing the influence of tiny normwise relative errors on performance profiles. ACM Transactions on Mathematical Software, 2013, 39, 1-11.	2.9	9
66	Blocked Schur Algorithms for Computing the Matrix Square Root. Lecture Notes in Computer Science, 2013, , 171-182.	1.3	28
67	Functions of Matrices. Discrete Mathematics and Its Applications, 2013, , 279-293.	0.1	0
68	Backward Stability of Iterations for Computing the Polar Decomposition. SIAM Journal on Matrix Analysis and Applications, 2012, 33, 460-479.	1.4	20
69	Improved Inverse Scaling and Squaring Algorithms for the Matrix Logarithm. SIAM Journal of Scientific Computing, 2012, 34, C153-C169.	2.8	60
70	Computing the Action of the Matrix Exponential, with an Application to Exponential Integrators. SIAM Journal of Scientific Computing, 2011, 33, 488-511.	2.8	321
71	A Schur–Padé Algorithm for Fractional Powers of a Matrix. SIAM Journal on Matrix Analysis and Applications, 2011, 32, 1056-1078.	1.4	49
72	Gaussian elimination. Wiley Interdisciplinary Reviews: Computational Statistics, 2011, 3, 230-238.	3.9	28

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73	A framework for analyzing nonlinear eigenproblems and parametrized linear systems. <i>Linear Algebra and Its Applications</i> , 2011, 435, 623-640.	0.9	25
74	On pth roots of stochastic matrices. <i>Linear Algebra and Its Applications</i> , 2011, 435, 448-463.	0.9	41
75	Dedication to Pete Stewart on the occasion of his 70th birthday. <i>Linear Algebra and Its Applications</i> , 2011, 435, 421.	0.9	0
76	The complex step approximation to the Fréchet derivative of a matrix function. <i>Numerical Algorithms</i> , 2010, 53, 133-148.	1.9	41
77	Computing matrix functions. <i>Acta Numerica</i> , 2010, 19, 159-208.	10.7	72
78	A New Scaling and Squaring Algorithm for the Matrix Exponential. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2010, 31, 970-989.	1.4	215
79	A preconditioned Newton algorithm for the nearest correlation matrix. <i>IMA Journal of Numerical Analysis</i> , 2010, 30, 94-107.	2.9	60
80	The Canonical Generalized Polar Decomposition. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2010, 31, 2163-2180.	1.4	25
81	Computing a Nearest Correlation Matrix with Factor Structure. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2010, 31, 2603-2622.	1.4	27
82	An Improved Arc Algorithm for Detecting Definite Hermitian Pairs. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2010, 31, 1131-1151.	1.4	24
83	Developing a High-Performance Computing/Numerical Analysis Roadmap. <i>International Journal of High Performance Computing Applications</i> , 2009, 23, 423-426.	3.7	1
84	Cholesky factorization. <i>Wiley Interdisciplinary Reviews: Computational Statistics</i> , 2009, 1, 251-254.	3.9	101
85	The Scaling and Squaring Method for the Matrix Exponential Revisited. <i>SIAM Review</i> , 2009, 51, 747-764.	9.5	133
86	Definite Matrix Polynomials and their Linearization by Definite Pencils. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009, 31, 478-502.	1.4	27
87	Detecting and Solving Hyperbolic Quadratic Eigenvalue Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009, 30, 1593-1613.	1.4	23
88	Computing the Fréchet Derivative of the Matrix Exponential, with an Application to Condition Number Estimation. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009, 30, 1639-1657.	1.4	57
89	Scaling, sensitivity and stability in the numerical solution of quadratic eigenvalue problems. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 73, 344-360.	2.8	41
90	Computing A^α , $\log(A)$, and Related Matrix Functions by Contour Integrals. <i>SIAM Journal on Numerical Analysis</i> , 2008, 46, 2505-2523.	2.3	129

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91	Backward Error of Polynomial Eigenproblems Solved by Linearization. SIAM Journal on Matrix Analysis and Applications, 2008, 29, 1218-1241.	1.4	73
92	The solution of $\exp(s) = a$ is not always the Lambert w function of a . , 2007, , .		11
93	Iterative Solution of a Nonsymmetric Algebraic Riccati Equation. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 396-412.	1.4	75
94	Symmetric Linearizations for Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 143-159.	1.4	93
95	The Conditioning of Linearizations of Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 1005-1028.	1.4	83
96	A Schur–Newton Method for the Matrix lowercase $\sqrt[p]{}$ th Root and its Inverse. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 788-804.	1.4	60
97	Inverse Eigenvalue Problems: Theory, Algorithms, and Applications . By M OODY T. C HU & GENE H. GOLUB . Oxford University Press, 2005. 387 pp. ISBN 0-19-856664-6. £60.00. Journal of Fluid Mechanics, 2006, 556, 442.	3.4	1
98	LAPACK-Style Codes for Pivoted Cholesky and QR Updating. , 2006, , 137-146.		4
99	The Scaling and Squaring Method for the Matrix Exponential Revisited. SIAM Journal on Matrix Analysis and Applications, 2005, 26, 1179-1193.	1.4	429
100	Algorithms for the matrix p th root. Numerical Algorithms, 2005, 39, 349-378.	1.9	71
101	Efficient algorithms for the matrix cosine and sine. Numerical Algorithms, 2005, 40, 383-400.	1.9	37
102	Computing $f(A)b$ for Matrix Functions f . , 2005, , 15-24.		12
103	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
104	The sensitivity of computational control problems. IEEE Control Systems, 2004, 24, 28-43.	0.8	26
105	The numerical stability of barycentric Lagrange interpolation. IMA Journal of Numerical Analysis, 2004, 24, 547-556.	2.9	242
106	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
107	Computing the Matrix Cosine. Numerical Algorithms, 2003, 34, 13-26.	1.9	25
108	The Equality Constrained Indefinite Least Squares Problem: Theory and Algorithms. BIT Numerical Mathematics, 2003, 43, 505-517.	2.0	14

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109	Bounds for eigenvalues of matrix polynomials. <i>Linear Algebra and Its Applications</i> , 2003, 358, 5-22.	0.9	76
110	Solving the Indefinite Least Squares Problem by Hyperbolic QR Factorization. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003, 24, 914-931.	1.4	46
111	A Schur-Parlett Algorithm for Computing Matrix Functions. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003, 25, 464-485.	1.4	114
112	J-Orthogonal Matrices: Properties and Generation. <i>SIAM Review</i> , 2003, 45, 504-519.	9.5	82
113	Computing the nearest correlation matrix—a problem from finance. <i>IMA Journal of Numerical Analysis</i> , 2002, 22, 329-343.	2.9	643
114	More on pseudospectra for polynomial eigenvalue problems and applications in control theory. <i>Linear Algebra and Its Applications</i> , 2002, 351-352, 435-453.	0.9	42
115	Detecting a definite Hermitian pair and a hyperbolic or elliptic quadratic eigenvalue problem, and associated nearness problems. <i>Linear Algebra and Its Applications</i> , 2002, 351-352, 455-474.	0.9	53
116	Structured Pseudospectra for Polynomial Eigenvalue Problems, with Applications. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001, 23, 187-208.	1.4	113
117	Solving a Quadratic Matrix Equation by Newton's Method with Exact Line Searches. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001, 23, 303-316.	1.4	96
118	Analysis of the Cholesky Method with Iterative Refinement for Solving the Symmetric Definite Generalized Eigenproblem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001, 23, 472-493.	1.4	22
119	Approximating the Logarithm of a Matrix to Specified Accuracy. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001, 22, 1112-1125.	1.4	100
120	Evaluating Padé Approximants of the Matrix Logarithm. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2001, 22, 1126-1135.	1.4	37
121	Parallel Implementation of a Block Algorithm for Matrix 1-Norm Estimation. <i>Lecture Notes in Computer Science</i> , 2001, , 568-577.	1.3	0
122	QR factorization with complete pivoting and accurate computation of the SVD. <i>Linear Algebra and Its Applications</i> , 2000, 309, 153-174.	0.9	30
123	Numerically Stable Generation of Correlation Matrices and Their Factors. <i>BIT Numerical Mathematics</i> , 2000, 40, 640-651.	2.0	85
124	A Block Algorithm for Matrix 1-Norm Estimation, with an Application to 1-Norm Pseudospectra. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2000, 21, 1185-1201.	1.4	120
125	Numerical analysis of a quadratic matrix equation. <i>IMA Journal of Numerical Analysis</i> , 2000, 20, 499-519.	2.9	131
126	Stability of block LDLT factorization of a symmetric tridiagonal matrix. <i>Linear Algebra and Its Applications</i> , 1999, 287, 181-189.	0.9	16

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127	The nearest definite pair for the Hermitian generalized eigenvalue problem. Linear Algebra and Its Applications, 1999, 302-303, 63-76.	0.9	15
128	Title is missing!. BIT Numerical Mathematics, 1999, 39, 34-50.	2.0	34
129	Backward Error Bounds for Constrained Least Squares Problems. BIT Numerical Mathematics, 1999, 39, 210-227.	2.0	15
130	Row-Wise Backward Stable Elimination Methods for the Equality Constrained Least Squares Problem. SIAM Journal on Matrix Analysis and Applications, 1999, 21, 313-326.	1.4	24
131	Notes on Accuracy and Stability of Algorithms in Numerical Linear Algebra. Springer Series in Computational Mathematics, 1999, , 47-82.	0.2	1
132	Modifying the inertia of matrices arising in optimization. Linear Algebra and Its Applications, 1998, 275-276, 261-279.	0.9	24
133	A Modified Cholesky Algorithm Based on a Symmetric Indefinite Factorization. SIAM Journal on Matrix Analysis and Applications, 1998, 19, 1097-1110.	1.4	75
134	Structured Backward Error and Condition of Generalized Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 1998, 20, 493-512.	1.4	91
135	Factorizing complex symmetric matrices with positive definite real and imaginary parts. Mathematics of Computation, 1998, 67, 1591-1600.	2.1	33
136	Iterative refinement for linear systems and LAPACK. IMA Journal of Numerical Analysis, 1997, 17, 495-509.	2.9	29
137	Stability of the Diagonal Pivoting Method with Partial Pivoting. SIAM Journal on Matrix Analysis and Applications, 1997, 18, 52-65.	1.4	38
138	Stable iterations for the matrix square root. Numerical Algorithms, 1997, 15, 227-242.	1.9	147
139	Stable iterations for the matrix square root. , 1997, 15, 227.		1
140	Testing linear algebra software. IFIP Advances in Information and Communication Technology, 1997, , 109-124.	0.7	2
141	Computing the field of values and pseudospectra using the Lanczos method with continuation. BIT Numerical Mathematics, 1996, 36, 422-440.	2.0	36
142	Stability of blockLU factorization. Numerical Linear Algebra With Applications, 1995, 2, 173-190.	1.6	65
143	Stability of Parallel Triangular System Solvers. SIAM Journal of Scientific Computing, 1995, 16, 400-413.	2.8	17
144	Matrix Powers in Finite Precision Arithmetic. SIAM Journal on Matrix Analysis and Applications, 1995, 16, 343-358.	1.4	18

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145	The matrix sign decomposition and its relation to the polar decomposition. Linear Algebra and Its Applications, 1994, 212-213, 3-20.	0.9	56
146	A parallel algorithm for computing the polar decomposition. Parallel Computing, 1994, 20, 1161-1173.	2.1	29
147	Stability of the Partitioned Inverse Method for Parallel Solution of Sparse Triangular Systems. SIAM Journal of Scientific Computing, 1994, 15, 139-148.	2.8	11
148	Finite precision behavior of stationary iteration for solving singular systems. Linear Algebra and Its Applications, 1993, 192, 165-186.	0.9	21
149	Perturbation theory and backward error for $AX \approx XB = C$. BIT Numerical Mathematics, 1993, 33, 124-136.	2.0	80
150	Optimization by Direct Search in Matrix Computations. SIAM Journal on Matrix Analysis and Applications, 1993, 14, 317-333.	1.4	46
151	Improved Error Bounds for Underdetermined System Solvers. SIAM Journal on Matrix Analysis and Applications, 1993, 14, 1-14.	1.4	41
152	The Accuracy of Floating Point Summation. SIAM Journal of Scientific Computing, 1993, 14, 783-799.	2.8	186
153	Componentwise Error Analysis for Stationary Iterative Methods. The IMA Volumes in Mathematics and Its Applications, 1993, , 29-46.	0.5	8
154	Stability of block algorithms with fast level-3 BLAS. ACM Transactions on Mathematical Software, 1992, 18, 274-291.	2.9	46
155	Stability of Methods for Matrix Inversion. IMA Journal of Numerical Analysis, 1992, 12, 1-19.	2.9	54
156	Stability of a Method for Multiplying Complex Matrices with Three Real Matrix Multiplications. SIAM Journal on Matrix Analysis and Applications, 1992, 13, 681-687.	1.4	29
157	Backward Error and Condition of Structured Linear Systems. SIAM Journal on Matrix Analysis and Applications, 1992, 13, 162-175.	1.4	103
158	Componentwise perturbation theory for linear systems with multiple right-hand sides. Linear Algebra and Its Applications, 1992, 174, 111-129.	0.9	23
159	Estimating the matrix p -norm. Numerische Mathematik, 1992, 62, 539-555.	1.9	43
160	Iterative refinement enhances the stability of QR factorization methods for solving linear equations. BIT Numerical Mathematics, 1991, 31, 447-468.	2.0	41
161	Algorithm 694. ACM Transactions on Mathematical Software, 1991, 17, 289-305.	2.9	53
162	Applications of Matrix Theory. Mathematical Gazette, 1990, 74, 202.	0.0	0

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163	Matrix computations. Linear Algebra and Its Applications, 1990, 141, 289-292.	0.9	1
164	Exploiting fast matrix multiplication within the level 3 BLAS. ACM Transactions on Mathematical Software, 1990, 16, 352-368.	2.9	88
165	Experience with a Matrix Norm Estimator. SIAM Journal on Scientific and Statistical Computing, 1990, 11, 804-809.	1.5	36
166	Fast Polar Decomposition of an Arbitrary Matrix. SIAM Journal on Scientific and Statistical Computing, 1990, 11, 648-655.	1.5	63
167	Bounding the Error in Gaussian Elimination for Tridiagonal Systems. SIAM Journal on Matrix Analysis and Applications, 1990, 11, 521-530.	1.4	33
168	Stability Analysis of Algorithms for Solving Confluent Vandermonde-Like Systems. SIAM Journal on Matrix Analysis and Applications, 1990, 11, 23-41.	1.4	62
169	Algorithm 674. ACM Transactions on Mathematical Software, 1989, 15, 168.	2.9	8
170	The Accuracy of Solutions to Triangular Systems. SIAM Journal on Numerical Analysis, 1989, 26, 1252-1265.	2.3	50
171	Large Growth Factors in Gaussian Elimination with Pivoting. SIAM Journal on Matrix Analysis and Applications, 1989, 10, 155-164.	1.4	58
172	The symmetric procrustes problem. BIT Numerical Mathematics, 1988, 28, 133-143.	2.0	58
173	Computing a nearest symmetric positive semidefinite matrix. Linear Algebra and Its Applications, 1988, 103, 103-118.	0.9	516
174	Fast Solution of Vandermonde-Like Systems Involving Orthogonal Polynomials. IMA Journal of Numerical Analysis, 1988, 8, 473-486.	2.9	66
175	FORTTRAN codes for estimating the one-norm of a real or complex matrix, with applications to condition estimation. ACM Transactions on Mathematical Software, 1988, 14, 381-396.	2.9	140
176	A Survey of Condition Number Estimation for Triangular Matrices. SIAM Review, 1987, 29, 575-596.	9.5	143
177	Error analysis of the Björck-Pereyra algorithms for solving Vandermonde systems. Numerische Mathematik, 1987, 50, 613-632.	1.9	79
178	Computing real square roots of a real matrix. Linear Algebra and Its Applications, 1987, 88-89, 405-430.	0.9	151
179	Computing the Polar Decomposition with Applications. SIAM Journal on Scientific and Statistical Computing, 1986, 7, 1160-1174.	1.5	326
180	Efficient Algorithms for Computing the Condition Number of a Tridiagonal Matrix. SIAM Journal on Scientific and Statistical Computing, 1986, 7, 150-165.	1.5	40

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181	Newton's Method for the Matrix Square Root. Mathematics of Computation, 1986, 46, 537.	2.1	50
182	Newton's method for the matrix square root. Mathematics of Computation, 1986, 46, 537-549.	2.1	66
183	Explicit Solutions to Correlation Matrix Completion Problems, with an Application to Risk Management and Insurance. SSRN Electronic Journal, 0, , .	0.4	1
184	Matrix Depot: an extensible test matrix collection for Julia. PeerJ Computer Science, 0, 2, e58.	4.5	8