## Nicholas J Higham

List of Publications by Year in descending order

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NICHOLAS L HICHAM

#	Article	IF	CITATIONS
1	Computing the nearest correlation matrix-a problem from finance. IMA Journal of Numerical Analysis, 2002, 22, 329-343.	2.9	643
2	Computing a nearest symmetric positive semidefinite matrix. Linear Algebra and Its Applications, 1988, 103, 103-118.	0.9	516
3	The Scaling and Squaring Method for the Matrix Exponential Revisited. SIAM Journal on Matrix Analysis and Applications, 2005, 26, 1179-1193.	1.4	429
4	Computing the Polar Decomposition—with Applications. SIAM Journal on Scientific and Statistical Computing, 1986, 7, 1160-1174.	1.5	326
5	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
6	The numerical stability of barycentric Lagrange interpolation. IMA Journal of Numerical Analysis, 2004, 24, 547-556.	2.9	242
7	A New Scaling and Squaring Algorithm for the Matrix Exponential. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 970-989.	1.4	215
8	The Accuracy of Floating Point Summation. SIAM Journal of Scientific Computing, 1993, 14, 783-799.	2.8	186
9	NLEVP. ACM Transactions on Mathematical Software, 2013, 39, 1-28.	2.9	177
10	Computing real square roots of a real matrix. Linear Algebra and Its Applications, 1987, 88-89, 405-430.	0.9	151
11	Stable iterations for the matrix square root. Numerical Algorithms, 1997, 15, 227-242.	1.9	147
12	A Survey of Condition Number Estimation for Triangular Matrices. SIAM Review, 1987, 29, 575-596.	9.5	143
13	FORTRAN 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
14	The Scaling and Squaring Method for the Matrix Exponential Revisited. SIAM Review, 2009, 51, 747-764.	9.5	133
15	Numerical analysis of a quadratic matrix equation. IMA Journal of Numerical Analysis, 2000, 20, 499-519.	2.9	131
16	Computing \$A^alpha, log(A)\$, and Related Matrix Functions by Contour Integrals. SIAM Journal on Numerical Analysis, 2008, 46, 2505-2523.	2.3	129
17	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
18	A Schur-Parlett Algorithm for Computing Matrix Functions. SIAM Journal on Matrix Analysis and Applications, 2003, 25, 464-485.	1.4	114

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19	Structured Pseudospectra for Polynomial Eigenvalue Problems, with Applications. SIAM Journal on Matrix Analysis and Applications, 2001, 23, 187-208.	1.4	113
20	Accelerating the Solution of Linear Systems by Iterative Refinement in Three Precisions. SIAM Journal of Scientific Computing, 2018, 40, A817-A847.	2.8	109
21	Harnessing GPU Tensor Cores for Fast FP16 Arithmetic to Speed up Mixed-Precision Iterative Refinement Solvers. , 2018, , .		104
22	Backward Error and Condition of Structured Linear Systems. SIAM Journal on Matrix Analysis and Applications, 1992, 13, 162-175.	1.4	103
23	Cholesky factorization. Wiley Interdisciplinary Reviews: Computational Statistics, 2009, 1, 251-254.	3.9	101
24	Approximating the Logarithm of a Matrix to Specified Accuracy. SIAM Journal on Matrix Analysis and Applications, 2001, 22, 1112-1125.	1.4	100
25	Solving a Quadratic Matrix Equation by Newton's Method with Exact Line Searches. SIAM Journal on Matrix Analysis and Applications, 2001, 23, 303-316.	1.4	96
26	Symmetric Linearizations for Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 143-159.	1.4	93
27	Structured Backward Error and Condition of Generalized Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 1998, 20, 493-512.	1.4	91
28	Exploiting fast matrix multiplication within the level 3 BLAS. ACM Transactions on Mathematical Software, 1990, 16, 352-368.	2.9	88
29	Numerically Stable Generation of Correlation Matrices and Their Factors. BIT Numerical Mathematics, 2000, 40, 640-651.	2.0	85
30	The Conditioning of Linearizations of Matrix Polynomials. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 1005-1028.	1.4	83
31	J-Orthogonal Matrices: Properties and Generation. SIAM Review, 2003, 45, 504-519.	9.5	82
32	Perturbation theory and backward error forAXâ^'XB=C. BIT Numerical Mathematics, 1993, 33, 124-136.	2.0	80
33	Error analysis of the Bj�2rck-Pereyra algorithms for solving Vandermonde systems. Numerische Mathematik, 1987, 50, 613-632.	1.9	79
34	UManSysProp v1.0: an online and open-source facility for molecular property prediction and atmospheric aerosol calculations. Geoscientific Model Development, 2016, 9, 899-914.	3.6	78
35	Bounds for eigenvalues of matrix polynomials. Linear Algebra and Its Applications, 2003, 358, 5-22.	0.9	76
36	A Modified Cholesky Algorithm Based on a Symmetric Indefinite Factorization. SIAM Journal on Matrix Analysis and Applications, 1998, 19, 1097-1110.	1.4	75

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37	Iterative Solution of a Nonsymmetric Algebraic Riccati Equation. SIAM Journal on Matrix Analysis and Applications, 2007, 29, 396-412.	1.4	75
38	Backward Error of Polynomial Eigenproblems Solved by Linearization. SIAM Journal on Matrix Analysis and Applications, 2008, 29, 1218-1241.	1.4	73
39	Computing matrix functions. Acta Numerica, 2010, 19, 159-208.	10.7	72
40	Algorithms for the matrix pth root. Numerical Algorithms, 2005, 39, 349-378.	1.9	71
41	A New Analysis of Iterative Refinement and Its Application to Accurate Solution of Ill-Conditioned Sparse Linear Systems. SIAM Journal of Scientific Computing, 2017, 39, A2834-A2856.	2.8	70
42	Newton's method for the matrix square root. Mathematics of Computation, 1986, 46, 537-549.	2.1	66
43	Fast Solution of Vandermonde-Like Systems Involving Orthogonal Polynomials. IMA Journal of Numerical Analysis, 1988, 8, 473-486.	2.9	66
44	Stability of blockLU factorization. Numerical Linear Algebra With Applications, 1995, 2, 173-190.	1.6	65
45	Fast Polar Decomposition of an Arbitrary Matrix. SIAM Journal on Scientific and Statistical Computing, 1990, 11, 648-655.	1.5	63
46	Stability Analysis of Algorithms for Solving Confluent Vandermonde-Like Systems. SIAM Journal on Matrix Analysis and Applications, 1990, 11, 23-41.	1.4	62
47	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
48	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
49	A Schur–Newton Method for the Matrix lowercase{oldmathp}th Root and its Inverse. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 788-804.	1.4	60
50	A preconditioned Newton algorithm for the nearest correlation matrix. IMA Journal of Numerical Analysis, 2010, 30, 94-107.	2.9	60
51	Improved Inverse Scaling and Squaring Algorithms for the Matrix Logarithm. SIAM Journal of Scientific Computing, 2012, 34, C153-C169.	2.8	60
52	The symmetric procrustes problem. BIT Numerical Mathematics, 1988, 28, 133-143.	2.0	58
53	Large Growth Factors in Gaussian Elimination with Pivoting. SIAM Journal on Matrix Analysis and Applications, 1989, 10, 155-164.	1.4	58
54	Computing the Fréchet Derivative of the Matrix Exponential, with an Application to Condition Number Estimation. SIAM Journal on Matrix Analysis and Applications, 2009, 30, 1639-1657.	1.4	57

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55	The matrix sign decomposition and its relation to the polar decomposition. Linear Algebra and Its Applications, 1994, 212-213, 3-20.	0.9	56
56	Stability of Methods for Matrix Inversion. IMA Journal of Numerical Analysis, 1992, 12, 1-19.	2.9	54
57	Algorithm 694. ACM Transactions on Mathematical Software, 1991, 17, 289-305.	2.9	53
58	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
59	Newton's Method for the Matrix Square Root. Mathematics of Computation, 1986, 46, 537.	2.1	50
60	The Accuracy of Solutions to Triangular Systems. SIAM Journal on Numerical Analysis, 1989, 26, 1252-1265.	2.3	50
61	The Design and Performance of Batched BLAS on Modern High-Performance Computing Systems. Procedia Computer Science, 2017, 108, 495-504.	2.0	50
62	A New Approach to Probabilistic Rounding Error Analysis. SIAM Journal of Scientific Computing, 2019, 41, A2815-A2835.	2.8	50
63	A Schur–Padé Algorithm for Fractional Powers of a Matrix. SIAM Journal on Matrix Analysis and Applications, 2011, 32, 1056-1078.	1.4	49
64	Stability of block algorithms with fast level-3 BLAS. ACM Transactions on Mathematical Software, 1992, 18, 274-291.	2.9	46
65	Optimization by Direct Search in Matrix Computations. SIAM Journal on Matrix Analysis and Applications, 1993, 14, 317-333.	1.4	46
66	Solving the Indefinite Least Squares Problem by Hyperbolic QR Factorization. SIAM Journal on Matrix Analysis and Applications, 2003, 24, 914-931.	1.4	46
67	An Improved SchurPadé 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
68	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
69	Estimating the matrixp-norm. Numerische Mathematik, 1992, 62, 539-555.	1.9	43
70	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
71	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
72	Iterative refinement enhances the stability ofQR factorization methods for solving linear equations. BIT Numerical Mathematics, 1991, 31, 447-468.	2.0	41

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73	Improved Error Bounds for Underdetermined System Solvers. SIAM Journal on Matrix Analysis and Applications, 1993, 14, 1-14.	1.4	41
74	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
75	The complex step approximation to the Fréchet derivative of a matrix function. Numerical Algorithms, 2010, 53, 133-148.	1.9	41
76	On pth roots of stochastic matrices. Linear Algebra and Its Applications, 2011, 435, 448-463.	0.9	41
77	Adaptive precision in blockâ€Jacobi preconditioning for iterative sparse linear system solvers. Concurrency Computation Practice and Experience, 2019, 31, e4460.	2.2	41
78	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
79	Simulating Low Precision Floating-Point Arithmetic. SIAM Journal of Scientific Computing, 2019, 41, C585-C602.	2.8	39
80	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
81	Stability of the Diagonal Pivoting Method with Partial Pivoting. SIAM Journal on Matrix Analysis and Applications, 1997, 18, 52-65.	1.4	38
82	Evaluating Padé Approximants of the Matrix Logarithm. SIAM Journal on Matrix Analysis and Applications, 2001, 22, 1126-1135.	1.4	37
83	Efficient algorithms for the matrix cosine and sine. Numerical Algorithms, 2005, 40, 383-400.	1.9	37
84	Experience with a Matrix Norm Estimator. SIAM Journal on Scientific and Statistical Computing, 1990, 11, 804-809.	1.5	36
85	Computing the field of values and pseudospectra using the Lanczos method with continuation. BIT Numerical Mathematics, 1996, 36, 422-440.	2.0	36
86	Anderson acceleration of the alternating projections method for computing the nearest correlation matrix. Numerical Algorithms, 2016, 72, 1021-1042.	1.9	35
87	Title is missing!. BIT Numerical Mathematics, 1999, 39, 34-50.	2.0	34
88	Accurately computing the log-sum-exp and softmax functions. IMA Journal of Numerical Analysis, 2021, 41, 2311-2330.	2.9	34
89	Bounding the Error in Gaussian Eimination for Tridiagonal Systems. SIAM Journal on Matrix Analysis and Applications, 1990, 11, 521-530.	1.4	33
90	Factorizing complex symmetric matrices with positive definite real and imaginary parts. Mathematics of Computation, 1998, 67, 1591-1600.	2.1	33

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91	QR factorization with complete pivoting and accurate computation of the SVD. Linear Algebra and Its Applications, 2000, 309, 153-174.	0.9	30
92	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
93	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
94	A parallel algorithm for computing the polar decomposition. Parallel Computing, 1994, 20, 1161-1173.	2.1	29
95	Iterative refinement for linear systems and LAPACK. IMA Journal of Numerical Analysis, 1997, 17, 495-509.	2.9	29
96	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
97	Mixed precision algorithms in numerical linear algebra. Acta Numerica, 2022, 31, 347-414.	10.7	29
98	Gaussian elimination. Wiley Interdisciplinary Reviews: Computational Statistics, 2011, 3, 230-238.	3.9	28
99	Covariance structure regularization via entropy loss function. Computational Statistics and Data Analysis, 2014, 72, 315-327.	1.2	28
100	Blocked Schur Algorithms for Computing the Matrix Square Root. Lecture Notes in Computer Science, 2013, , 171-182.	1.3	28
101	Definite Matrix Polynomials and their Linearization by Definite Pencils. SIAM Journal on Matrix Analysis and Applications, 2009, 31, 478-502.	1.4	27
102	Computing a Nearest Correlation Matrix with Factor Structure. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2603-2622.	1.4	27
103	New Algorithms for Computing the Matrix Sine and Cosine Separately or Simultaneously. SIAM Journal of Scientific Computing, 2015, 37, A456-A487.	2.8	27
104	The sensitivity of computational control problems. IEEE Control Systems, 2004, 24, 28-43.	0.8	26
105	Stochastic Rounding and Its Probabilistic Backward Error Analysis. SIAM Journal of Scientific Computing, 2021, 43, A566-A585.	2.8	26
106	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
107	Computing the Matrix Cosine. Numerical Algorithms, 2003, 34, 13-26.	1.9	25
108	The Canonical Generalized Polar Decomposition. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2163-2180.	1.4	25

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109	A framework for analyzing nonlinear eigenproblems and parametrized linear systems. Linear Algebra and Its Applications, 2011, 435, 623-640.	0.9	25
110	Modifying the inertia of matrices arising in optimization. Linear Algebra and Its Applications, 1998, 275-276, 261-279.	0.9	24
111	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
112	An Improved Arc Algorithm for Detecting Definite Hermitian Pairs. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 1131-1151.	1.4	24
113	Componentwise perturbation theory for linear systems with multiple right-hand sides. Linear Algebra and Its Applications, 1992, 174, 111-129.	0.9	23
114	Detecting and Solving Hyperbolic Quadratic Eigenvalue Problems. SIAM Journal on Matrix Analysis and Applications, 2009, 30, 1593-1613.	1.4	23
115	Detecting the causes of ill-conditioning in structural finite element models. Computers and Structures, 2014, 133, 79-89.	4.4	23
116	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
117	A Class of Fast and Accurate Summation Algorithms. SIAM Journal of Scientific Computing, 2020, 42, A1541-A1557.	2.8	22
118	Finite precision behavior of stationary iteration for solving singular systems. Linear Algebra and Its Applications, 1993, 192, 165-186.	0.9	21
119	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
120	Backward Stability of Iterations for Computing the Polar Decomposition. SIAM Journal on Matrix Analysis and Applications, 2012, 33, 460-479.	1.4	20
121	Matching exponential-based and resolvent-based centrality measures. Journal of Complex Networks, 2016, 4, 157-176.	1.8	20
122	Numerical behavior of NVIDIA tensor cores. PeerJ Computer Science, 2021, 7, e330.	4.5	19
123	Matrix Powers in Finite Precision Arithmetic. SIAM Journal on Matrix Analysis and Applications, 1995, 16, 343-358.	1.4	18
124	Stability of Parallel Triangular System Solvers. SIAM Journal of Scientific Computing, 1995, 16, 400-413.	2.8	17
125	An Algorithm for the Matrix Lambert \$W\$ Function. SIAM Journal on Matrix Analysis and Applications, 2015, 36, 669-685.	1.4	17
126	A New Preconditioner that Exploits Low-Rank Approximations to Factorization Error. SIAM Journal of Scientific Computing, 2019, 41, A59-A82.	2.8	17

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127	Three-Precision GMRES-Based Iterative Refinement for Least Squares Problems. SIAM Journal of Scientific Computing, 2020, 42, A4063-A4083.	2.8	17
128	Stochastic rounding: implementation, error analysis and applications. Royal Society Open Science, 2022, 9, 211631.	2.4	17
129	Stability of block LDLT factorization of a symmetric tridiagonal matrix. Linear Algebra and Its Applications, 1999, 287, 181-189.	0.9	16
130	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
131	Multiprecision Algorithms for Computing the Matrix Logarithm. SIAM Journal on Matrix Analysis and Applications, 2018, 39, 472-491.	1.4	16
132	A Set of Batched Basic Linear Algebra Subprograms and LAPACK Routines. ACM Transactions on Mathematical Software, 2021, 47, 1-23.	2.9	16
133	The nearest definite pair for the Hermitian generalized eigenvalue problem. Linear Algebra and Its Applications, 1999, 302-303, 63-76.	0.9	15
134	Backward Error Bounds for Constrained Least Squares Problems. BIT Numerical Mathematics, 1999, 39, 210-227.	2.0	15
135	Restoring Definiteness via Shrinking, with an Application to Correlation Matrices with a Fixed Block. SIAM Review, 2016, 58, 245-263.	9.5	15
136	Numerical algorithms for high-performance computational science. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190066.	3.4	15
137	The Equality Constrained Indefinite Least Squares Problem: Theory and Algorithms. BIT Numerical Mathematics, 2003, 43, 505-517.	2.0	14
138	An algorithm to compute the polar decomposition of a 3 × 3 matrix. Numerical Algorithms, 2016, 73, 349-369.	1.9	14
139	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
140	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
141	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
142	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
143	Computing f(A)b for Matrix Functions f. , 2005, , 15-24.		12
144	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

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145	The solution of <i>s</i> exp( <i>s</i> ) = <i>a</i> is not always the lambert <i>w</i> function of <i>a</i> . , 2007, , .		11
146	Reducing the influence of tiny normwise relative errors on performance profiles. ACM Transactions on Mathematical Software, 2013, 39, 1-11.	2.9	9
147	Computing the Action of Trigonometric and Hyperbolic Matrix Functions. SIAM Journal of Scientific Computing, 2017, 39, A613-A627.	2.8	9
148	Algorithm 674. ACM Transactions on Mathematical Software, 1989, 15, 168.	2.9	8
149	Computing the Wave-Kernel Matrix Functions. SIAM Journal of Scientific Computing, 2018, 40, A4060-A4082.	2.8	8
150	Componentwise Error Analysis for Stationary Iterative Methods. The IMA Volumes in Mathematics and Its Applications, 1993, , 29-46.	0.5	8
151	Matrix Depot: an extensible test matrix collection for Julia. PeerJ Computer Science, 0, 2, e58.	4.5	8
152	Anymatrix: an extensible MATLAB matrix collection. Numerical Algorithms, 2022, 90, 1175-1196.	1.9	8
153	Estimating the Largest Elements of a Matrix. SIAM Journal of Scientific Computing, 2016, 38, C584-C601.	2.8	7
154	Matrix Inverse Trigonometric and Inverse Hyperbolic Functions: Theory and Algorithms. SIAM Journal on Matrix Analysis and Applications, 2016, 37, 1453-1477.	1.4	6
155	Optimized Batched Linear Algebra for Modern Architectures. Lecture Notes in Computer Science, 2017, , 511-522.	1.3	6
156	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
157	Solving block low-rank linear systems by LU factorization is numerically stable. IMA Journal of Numerical Analysis, 2022, 42, 951-980.	2.9	6
158	Random Matrices Generating Large Growth in LU Factorization with Pivoting. SIAM Journal on Matrix Analysis and Applications, 2021, 42, 185-201.	1.4	6
159	A Multiprecision Derivative-Free SchurParlett Algorithm for Computing Matrix Functions. SIAM Journal on Matrix Analysis and Applications, 2021, 42, 1401-1422.	1.4	5
160	Bounds for the Distance to the Nearest Correlation Matrix. SIAM Journal on Matrix Analysis and Applications, 2016, 37, 1088-1102.	1.4	4
161	Testing Matrix Function Algorithms Using Identities. ACM Transactions on Mathematical Software, 2016, 42, 1-15.	2.9	4
162	Generating Extreme-Scale Matrices With Specified Singular Values or Condition Number. SIAM Journal of Scientific Computing, 2021, 43, A663-A684.	2.8	4

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163	LAPACK-Style Codes for Pivoted Cholesky and QR Updating. , 2006, , 137-146.		4
164	Estimating the Condition Number of the Fréchet Derivative of a Matrix Function. SIAM Journal of Scientific Computing, 2014, 36, C617-C634.	2.8	3
165	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
166	Integer matrix factorisations, superalgebras and the quadratic form obstruction. Linear Algebra and Its Applications, 2021, 622, 250-267.	0.9	3
167	Performance impact of precision reduction in sparse linear systems solvers. PeerJ Computer Science, 2022, 8, e778.	4.5	3
168	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
169	Ranking the Importance of Nuclear Reactions for Activation and Transmutation Events. Nuclear Science and Engineering, 2016, 184, 561-574.	1.1	2
170	Testing linear algebra software. IFIP Advances in Information and Communication Technology, 1997, , 109-124.	0.7	2
171	Matrix computations. Linear Algebra and Its Applications, 1990, 141, 289-292.	0.9	1
172	Inverse Eigenvalue Problems: Theory, Algorithms, and Applications . By M OODY T. C HU & G ENE H. G OLUB . Oxford University Press, 2005. 387 pp. ISBN 0-19-856664-6. Á£60.00. Journal of Fluid Mechanics, 2006, 556, 442.	3.4	1
173	Developing a High-Performance Computing/Numerical Analysis Roadmap. International Journal of High Performance Computing Applications, 2009, 23, 423-426.	3.7	1
174	Matrix Functions: A Short Course. Series in Contemporary Applied Mathematics, 2015, , 1-27.	0.8	1
175	Stable iterations for the matrix square root. , 1997, 15, 227.		1
176	New Directions in Numerical Computation. Notices of the American Mathematical Society, 2016, 63, 398-400.	0.2	1
177	Explicit Solutions to Correlation Matrix Completion Problems, with an Application to Risk Management and Insurance. SSRN Electronic Journal, 0, , .	0.4	1
178	Notes on Accuracy and Stability of Algorithms in Numerical Linear Algebra. Springer Series in Computational Mathematics, 1999, , 47-82.	0.2	1
179	Applications of Matrix Theory. Mathematical Gazette, 1990, 74, 202.	0.0	0
180	Dedication to Pete Stewart on the occasion of his 70th birthday. Linear Algebra and Its Applications, 2011, 435, 421.	0.9	0

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181	Matrix Functions: Computation. , 2015, , 863-865.		0
182	Parallel Implementation of a Block Algorithm for Matrix 1-Norm Estimation. Lecture Notes in Computer Science, 2001, , 568-577.	1.3	0
183	Functions of Matrices. Discrete Mathematics and Its Applications, 2013, , 279-293.	0.1	0
184	Optimizing and Factorizing the Wilson Matrix. American Mathematical Monthly, 2022, 129, 454-465.	0.3	0