

Yousef Or Youcef Saad

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167
papers

6,354
citations

43
h-index

75
g-index

174
ext. papers

7,091
ext. citations

2.5
avg, IF

6.2
L-index

#	Paper	IF	Citations
167	ILUT: A dual threshold incomplete LU factorization. <i>Numerical Linear Algebra With Applications</i> , 1994 , 1, 387-402	1.6	464
166	Iterative solution of linear systems in the 20th century. <i>Journal of Computational and Applied Mathematics</i> , 2000 , 123, 1-33	2.4	270
165	PARSEC The pseudopotential algorithm for real-space electronic structure calculations: recent advances and novel applications to nano-structures. <i>Physica Status Solidi (B): Basic Research</i> , 2006 , 243, 1063-1079	1.3	242
164	Orthogonal neighborhood preserving projections: a projection-based dimensionality reduction technique. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2007 , 29, 2143-56	13.3	224
163	Turbo charging time-dependent density-functional theory with Lanczos chains. <i>Journal of Chemical Physics</i> , 2008 , 128, 154105	3.9	207
162	Numerical Methods for Electronic Structure Calculations of Materials. <i>SIAM Review</i> , 2010 , 52, 3-54	7.4	176
161	Experimental study of ILU preconditioners for indefinite matrices. <i>Journal of Computational and Applied Mathematics</i> , 1997 , 86, 387-414	2.4	163
160	Approximate Inverse Preconditioners via Sparse-Sparse Iterations. <i>SIAM Journal of Scientific Computing</i> , 1998 , 19, 995-1023	2.6	156
159	Chebyshev acceleration techniques for solving nonsymmetric eigenvalue problems. <i>Mathematics of Computation</i> , 1984 , 42, 567-567	1.6	148
158	. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2012 , 24, 1216-1230	4.2	145
157	GPU-accelerated preconditioned iterative linear solvers. <i>Journal of Supercomputing</i> , 2013 , 63, 443-466	2.5	141
156	Conjugate gradient-like algorithms for solving nonsymmetric linear systems. <i>Mathematics of Computation</i> , 1985 , 44, 417-417	1.6	139
155	Two classes of multiseant methods for nonlinear acceleration. <i>Numerical Linear Algebra With Applications</i> , 2009 , 16, 197-221	1.6	131
154	Parallel self-consistent-field calculations via Chebyshev-filtered subspace acceleration. <i>Physical Review E</i> , 2006 , 74, 066704	2.4	127
153	Self-consistent-field calculations using Chebyshev-filtered subspace iteration. <i>Journal of Computational Physics</i> , 2006 , 219, 172-184	4.1	123
152	Deflated and Augmented Krylov Subspace Techniques. <i>Numerical Linear Algebra With Applications</i> , 1997 , 4, 43-66	1.6	116
151	Data communication in parallel architectures. <i>Parallel Computing</i> , 1989 , 11, 131-150	1	98

150	Preconditioning techniques for nonsymmetric and indefinite linear systems. <i>Journal of Computational and Applied Mathematics</i> , 1988 , 24, 89-105	2.4	93
149	Multilevel Preconditioners Constructed From Inverse-Based ILUs. <i>SIAM Journal of Scientific Computing</i> , 2006 , 27, 1627-1650	2.6	90
148	Distributed Schur Complement Techniques for General Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 1999 , 21, 1337-1356	2.6	85
147	A spectrum slicing method for the Kohn-Sham problem. <i>Computer Physics Communications</i> , 2012 , 183, 497-505	4.2	82
146	Evolution of magnetism in iron from the atom to the bulk. <i>Physical Review Letters</i> , 2006 , 97, 147201	7.4	81
145	Analysis of Augmented Krylov Subspace Methods. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1997 , 18, 435-449	1.5	79
144	Arnoldi methods for large Sylvester-like observer matrix equations, and an associated algorithm for partial spectrum assignment. <i>Linear Algebra and Its Applications</i> , 1991 , 154-156, 225-244	0.9	79
143	Dynamic Thick Restarting of the Davidson, and the Implicitly Restarted Arnoldi Methods. <i>SIAM Journal of Scientific Computing</i> , 1998 , 19, 227-245	2.6	76
142	Data communication in hypercubes. <i>Journal of Parallel and Distributed Computing</i> , 1989 , 6, 115-135	4.4	76
141	Data mining for materials: Computational experiments with AB compounds. <i>Physical Review B</i> , 2012 , 85,	3.3	74
140	Crout Versions of ILU for General Sparse Matrices. <i>SIAM Journal of Scientific Computing</i> , 2003 , 25, 716-728	6	73
139	BILUM: Block Versions of Multielimination and Multilevel ILU Preconditioner for General Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 1999 , 20, 2103-2121	2.6	67
138	Efficient numerical simulation of electron states in quantum wires. <i>Journal of Applied Physics</i> , 1990 , 68, 3461-3469	2.5	66
137	Approximate Inverse Techniques for Block-Partitioned Matrices. <i>SIAM Journal of Scientific Computing</i> , 1997 , 18, 1657-1675	2.6	65
136	pARMS: a parallel version of the algebraic recursive multilevel solver. <i>Numerical Linear Algebra With Applications</i> , 2003 , 10, 485-509	1.6	64
135	A probing method for computing the diagonal of a matrix inverse. <i>Numerical Linear Algebra With Applications</i> , 2012 , 19, 485-501	1.6	63
134	Ab initio calculations for large dielectric matrices of confined systems. <i>Physical Review Letters</i> , 2003 , 90, 127401	7.4	63
133	Numerical solution of large nonsymmetric eigenvalue problems. <i>Computer Physics Communications</i> , 1989 , 53, 71-90	4.2	57

132	Approximating Spectral Densities of Large Matrices. <i>SIAM Review</i> , 2016 , 58, 34-65	7.4	56
131	BILUTM: A Domain-Based Multilevel Block ILUT Preconditioner for General Sparse Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1999 , 21, 279-299	1.5	55
130	Krylov subspace methods for computing hydrodynamic interactions in brownian dynamics simulations. <i>Journal of Chemical Physics</i> , 2012 , 137, 064106	3.9	52
129	Complex shift and invert strategies for real matrices. <i>Linear Algebra and Its Applications</i> , 1987 , 88-89, 575-595	0.9	47
128	On the Tensor SVD and the Optimal Low Rank Orthogonal Approximation of Tensors. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009 , 30, 1709-1734	1.5	46
127	Efficient estimation of eigenvalue counts in an interval. <i>Numerical Linear Algebra With Applications</i> , 2016 , 23, 674-692	1.6	46
126	An arbitrary Lagrangian-Eulerian finite element method for solving three-dimensional free surface flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998 , 162, 79-106	5.7	45
125	Least Squares Polynomials in the Complex Plane and Their Use for Solving Nonsymmetric Linear Systems. <i>SIAM Journal on Numerical Analysis</i> , 1987 , 24, 155-169	2.4	43
124	Complexity of dense-linear-system solution on a multiprocessor ring. <i>Linear Algebra and Its Applications</i> , 1986 , 77, 205-239	0.9	41
123	Chebyshev-filtered subspace iteration method free of sparse diagonalization for solving the Kohn-Sham equation. <i>Journal of Computational Physics</i> , 2014 , 274, 770-782	4.1	40
122	A Filtered Lanczos Procedure for Extreme and Interior Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A2220-A2246	2.6	40
121	Overlapping Domain Decomposition Algorithms for General Sparse Matrices. <i>Numerical Linear Algebra With Applications</i> , 1996 , 3, 221-237	1.6	40
120	Preconditioning Helmholtz linear systems. <i>Applied Numerical Mathematics</i> , 2010 , 60, 420-431	2.5	39
119	Preconditioned Krylov Subspace Methods for Sampling Multivariate Gaussian Distributions. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, A588-A608	2.6	35
118	A Chebyshev-Davidson Algorithm for Large Symmetric Eigenproblems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2007 , 29, 954-971	1.5	34
117	Fast Estimation of $\text{tr}(f(A))$ via Stochastic Lanczos Quadrature. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 1075-1099	1.5	33
116	Parallel implementation of time-dependent density functional theory. <i>Computer Physics Communications</i> , 2003 , 156, 22-42	4.2	33
115	On the Relations between ILUs and Factored Approximate Inverses. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 24, 219-237	1.5	32

114	. <i>IEEE Transactions on Signal Processing</i> , 2018 , 1-1	4.8	31
113	A Thick-Restart Lanczos Algorithm with Polynomial Filtering for Hermitian Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, A2512-A2534	2.6	31
112	Computation of Smallest Eigenvalues using Spectral Schur Complements. <i>SIAM Journal of Scientific Computing</i> , 2005 , 27, 458-481	2.6	30
111	Multilevel ILU With Reorderings for Diagonal Dominance. <i>SIAM Journal of Scientific Computing</i> , 2005 , 27, 1032-1057	2.6	29
110	A Parallel Multistage ILU Factorization Based on a Hierarchical Graph Decomposition. <i>SIAM Journal of Scientific Computing</i> , 2006 , 28, 2266-2293	2.6	29
109	Robust preconditioning of large, sparse, symmetric eigenvalue problems. <i>Journal of Computational and Applied Mathematics</i> , 1995 , 64, 197-215	2.4	27
108	Computing $\mathcal{F}(A)b$ via Least Squares Polynomial Approximations. <i>SIAM Journal of Scientific Computing</i> , 2011 , 33, 195-222	2.6	26
107	Preconditioning techniques for the solution of the Helmholtz equation by the finite element method. <i>Mathematics and Computers in Simulation</i> , 2004 , 65, 303-321	3.3	26
106	Communication complexity of the Gaussian elimination algorithm on multiprocessors. <i>Linear Algebra and Its Applications</i> , 1986 , 77, 315-340	0.9	26
105	Efficient Algorithms for Estimating the Absorption Spectrum within Linear Response TDDFT. <i>Journal of Chemical Theory and Computation</i> , 2015 , 11, 5197-208	6.4	25
104	An Algebraic Multilevel Preconditioner with Low-Rank Corrections for Sparse Symmetric Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016 , 37, 235-259	1.5	25
103	Shanks Sequence Transformations and Anderson Acceleration. <i>SIAM Review</i> , 2018 , 60, 646-669	7.4	25
102	Block Krylov-Schur method for large symmetric eigenvalue problems. <i>Numerical Algorithms</i> , 2008 , 47, 341-359	2.1	25
101	Electronic structure calculations for plane-wave codes without diagonalization. <i>Computer Physics Communications</i> , 1999 , 118, 21-30	4.2	25
100	Exploiting Capabilities of Many Core Platforms in Reservoir Simulation 2011 ,		24
99	Filtered Conjugate Residual-type Algorithms with Applications. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 845-870	1.5	22
98	Divide and Conquer Low-Rank Preconditioners for Symmetric Matrices. <i>SIAM Journal of Scientific Computing</i> , 2013 , 35, A2069-A2095	2.6	21
97	High-order ILU preconditioners for CFD problems. <i>International Journal for Numerical Methods in Fluids</i> , 2000 , 33, 767-788	1.9	21

96	Lanczos Vectors versus Singular Vectors for Effective Dimension Reduction. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2009 , 21, 1091-1103	4.2	20
95	MIQR: A Multilevel Incomplete QR Preconditioner for Large Sparse Least-Squares Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 524-550	1.5	20
94	Enhanced multi-level block ILU preconditioning strategies for general sparse linear systems. <i>Journal of Computational and Applied Mathematics</i> , 2001 , 130, 99-118	2.4	20
93	Computation of Large Invariant Subspaces Using Polynomial Filtered Lanczos Iterations with Applications in Density Functional Theory. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2008 , 30, 397-418	1.5	19
92	DQGMRES: a Direct Quasi-minimal Residual Algorithm Based on Incomplete Orthogonalization. <i>Numerical Linear Algebra With Applications</i> , 1996 , 3, 329-343	1.6	19
91	Schur complement-based domain decomposition preconditioners with low-rank corrections. <i>Numerical Linear Algebra With Applications</i> , 2016 , 23, 706-729	1.6	19
90	ILUS: An incomplete LU preconditioner in sparse skyline format. <i>International Journal for Numerical Methods in Fluids</i> , 1997 , 25, 739-748	1.9	18
89	A Greedy Strategy for Coarse-Grid Selection. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 1825-1853	2.6	18
88	Computing charge densities with partially reorthogonalized Lanczos. <i>Computer Physics Communications</i> , 2005 , 171, 175-186	4.2	18
87	Computing Partial Spectra with Least-Squares Rational Filters. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, A3020-A3045	2.6	18
86	Deflated and Augmented Krylov Subspace Techniques 1997 , 4, 43		18
85	Efficient first-principles calculations of the electronic structure of periodic systems. <i>Computer Physics Communications</i> , 2007 , 177, 339-347	4.2	17
84	Formation enthalpies for transition metal alloys using machine learning. <i>Physical Review B</i> , 2017 , 95,	3.3	16
83	Enhanced GMRES Acceleration Techniques for some CFD Problems. <i>International Journal of Computational Fluid Dynamics</i> , 2002 , 16, 1-20	1.2	16
82	SMASH: Structured matrix approximation by separation and hierarchy. <i>Numerical Linear Algebra With Applications</i> , 2018 , 25, e2204	1.6	15
81	Finding Exact and Approximate Block Structures for ILU Preconditioning. <i>SIAM Journal of Scientific Computing</i> , 2003 , 24, 1107-1123	2.6	15
80	Analysis of Subspace Iteration for Eigenvalue Problems with Evolving Matrices. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2016 , 37, 103-122	1.5	14
79	Graph Partitioning Using Matrix Values for Preconditioning Symmetric Positive Definite Systems. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, A63-A87	2.6	14

78	Harnessing molecular excited states with Lanczos chains. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 074204	1.8	14
77	Overlapping Domain Decomposition Algorithms for General Sparse Matrices 1996 , 3, 221		14
76	Low-Rank Correction Methods for Algebraic Domain Decomposition Preconditioners. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 807-828	1.5	13
75	Incremental incomplete LU factorizations with applications. <i>Numerical Linear Algebra With Applications</i> , 2010 , 17, 811-837	1.6	13
74	A Factored Approximate Inverse Preconditioner with Pivoting. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 23, 692-705	1.5	13
73	Improving the Incoherence of a Learned Dictionary via Rank Shrinkage. <i>Neural Computation</i> , 2017 , 29, 263-285	2.9	12
72	Matrix Reordering Using Multilevel Graph Coarsening for ILU Preconditioning. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A391-A419	2.6	11
71	The Eigenvalues Slicing Library (EVSL): Algorithms, Implementation, and Software. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, C393-C415	2.6	11
70	Computing Planetary Interior Normal Modes with a Highly Parallel Polynomial Filtering Eigensolver 2018 ,		11
69	Fast Estimation of Approximate Matrix Ranks Using Spectral Densities. <i>Neural Computation</i> , 2017 , 29, 1317-1351	2.9	10
68	Domain-Decomposition-Type Methods for Computing the Diagonal of a Matrix Inverse. <i>SIAM Journal of Scientific Computing</i> , 2011 , 33, 2823-2847	2.6	10
67	Rational approximation to the FermiDirac function with applications in density functional theory. <i>Numerical Algorithms</i> , 2011 , 56, 455-479	2.1	10
66	SchurRAS: A Restricted Version of the Overlapping Schur Complement Preconditioner. <i>SIAM Journal of Scientific Computing</i> , 2006 , 27, 1787-1801	2.6	10
65	Further analysis of minimum residual iterations. <i>Numerical Linear Algebra With Applications</i> , 2000 , 7, 67-93	2.6	10
64	Cucheb: A GPU implementation of the filtered Lanczos procedure. <i>Computer Physics Communications</i> , 2017 , 220, 332-340	4.2	9
63	An edge based stabilized finite element method for solving compressible flows: formulation and parallel implementation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 190, 6735-6761	5.7	9
62	PFEAST: A High Performance Sparse Eigenvalue Solver Using Distributed-Memory Linear Solvers 2016 ,		9
61	A Rational Function Preconditioner For Indefinite Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A1145-A1167	2.6	8

60	Modification and Compensation Strategies for Threshold-based Incomplete Factorizations. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A48-A75	2.6	8
59	Algorithms for the electronic and vibrational properties of nanocrystals. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 064207	1.8	8
58	Preconditioning the Matrix Exponential Operator with Applications. <i>Journal of Scientific Computing</i> , 1998 , 13, 275-302	2.3	8
57	Graph-Based Multilevel Dimensionality Reduction with Applications to Eigenfaces and Latent Semantic Indexing 2008 ,		8
56	Diagonalization methods in PARSEC. <i>Physica Status Solidi (B): Basic Research</i> , 2006 , 243, 2188-2197	1.3	8
55	Block LU Preconditioners for Symmetric and Nonsymmetric Saddle Point Problems. <i>SIAM Journal of Scientific Computing</i> , 2003 , 25, 729-748	2.6	8
54	Parallel direct methods for solving banded linear systems. <i>Linear Algebra and Its Applications</i> , 1987 , 88-89, 623-650	0.9	8
53	A rational approximation method for solving acoustic nonlinear eigenvalue problems. <i>Engineering Analysis With Boundary Elements</i> , 2020 , 111, 44-54	2.6	8
52	On correction equations and domain decomposition for computing invariant subspaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007 , 196, 1471-1483	5.7	7
51	Solving the Three-Dimensional High-frequency Helmholtz Equation Using Contour Integration and Polynomial Preconditioning. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2020 , 41, 58-82	1.5	6
50	Domain decomposition approaches for accelerating contour integration eigenvalue solvers for symmetric eigenvalue problems. <i>Numerical Linear Algebra With Applications</i> , 2018 , 25, e2154	1.6	6
49	A scalable iterative dense linear system solver for multiple right-hand sides in data analytics. <i>Parallel Computing</i> , 2018 , 74, 136-153	1	6
48	Multilevel manifold learning with application to spectral clustering 2010 ,		6
47	Pseudopotentials on Grids: Application to the Electronic, Optical, and Vibrational Properties of Silicon Nanocrystals. <i>Journal of Computational and Theoretical Nanoscience</i> , 2009 , 6, 1247-1261	0.3	6
46	Algorithms for the evolution of electronic properties in nanocrystals. <i>Computer Physics Communications</i> , 2007 , 177, 1-5	4.2	6
45	Variations on algebraic recursive multilevel solvers (ARMS) for the solution of CFD problems. <i>Applied Numerical Mathematics</i> , 2004 , 51, 305-327	2.5	6
44	Design of an iterative solution module for a parallel sparse matrix library (P_SPARSLIB). <i>Applied Numerical Mathematics</i> , 1995 , 19, 343-357	2.5	6
43	Fast Computation of Spectral Densities for Generalized Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A2749-A2773	2.6	6

42	A Hierarchical Low Rank Schur Complement Preconditioner for Indefinite Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A2234-A2252	2.6	5
41	Beyond Automated Multilevel Substructuring: Domain Decomposition with Rational Filtering. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, C477-C502	2.6	5
40	Greedy Coarsening Strategies for Nonsymmetric Problems. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 2115-2143	2.6	5
39	Efficient computation of the coupling matrix in time-dependent density functional theory. <i>Computer Physics Communications</i> , 2005 , 167, 7-22	4.2	5
38	Non-standard Parallel Solution Strategies for Distributed Sparse Linear Systems. <i>Lecture Notes in Computer Science</i> , 1999 , 13-27	0.9	5
37	Spectral recycling strategies for the solution of nonlinear eigenproblems in thermoacoustics. <i>Numerical Linear Algebra With Applications</i> , 2015 , 22, 1039-1058	1.6	4
36	Prewhitening high-dimensional FMRI data sets without eigendecomposition. <i>Neural Computation</i> , 2014 , 26, 907-19	2.9	4
35	Using real space pseudopotentials for the electronic structure problem. <i>Handbook of Numerical Analysis</i> , 2003 , 10, 613-637	1	4
34	BASIC SPARSE MATRIX COMPUTATIONS ON THE CM-5. <i>International Journal of Modern Physics C</i> , 1993 , 04, 65-83	1.1	4
33	Sampling and multilevel coarsening algorithms for fast matrix approximations. <i>Numerical Linear Algebra With Applications</i> , 2019 , 26, e2234	1.6	3
32	Fast Updating Algorithms for Latent Semantic Indexing. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2014 , 35, 1105-1131	1.5	3
31	Hypergraph-based multilevel matrix approximation for text information retrieval 2010 ,		3
30	Farthest Centroids Divisive Clustering 2008 ,		3
29	Block Preconditioners for Saddle Point Problems. <i>Numerical Algorithms</i> , 2003 , 33, 367-379	2.1	3
28	Preconditioning strategies for linear systems arising in tire design. <i>Numerical Linear Algebra With Applications</i> , 2000 , 7, 743-757	1.6	3
27	On the condition number of some gram matrices arising from least squares approximation in the complex plane. <i>Numerische Mathematik</i> , 1986 , 48, 337-347	2.2	3
26	Solving elliptic partial differential equations on the hypercube multiprocessor. <i>Applied Numerical Mathematics</i> , 1987 , 3, 81-88	2.5	3
25	The Impact of Parallel Architectures on The Solution of Eigenvalue Problems. <i>North-Holland Mathematics Studies</i> , 1986 , 37-49		3

24	A posteriori error estimate for computing $\text{tr}(f(A))$ by using the Lanczos method. <i>Numerical Linear Algebra With Applications</i> , 2018 , 25, e2170	1.6	2
23	Spectrum-adapted Polynomial Approximation for Matrix Functions 2019 ,		2
22	Modified Krylov acceleration for parallel environments. <i>Applied Numerical Mathematics</i> , 1999 , 30, 191-212	2.5	2
21	Quantum algorithms for predicting the properties of complex materials 2012 ,		2
20	Schur Complement Preconditioners for Distributed General Sparse Linear Systems 2007 , 127-138		2
19	Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2021 , 32, 2609-2622	3.7	2
18	High-order ILU preconditioners for CFD problems 2000 , 33, 767		2
17	Multicolor low-rank preconditioner for general sparse linear systems. <i>Numerical Linear Algebra With Applications</i> , 2020 , 27, e2316	1.6	1
16	Lanczos-based Low-Rank Correction Method for Solving the Dyson Equation in Inhomogenous Dynamical Mean-Field Theory. <i>Physics Procedia</i> , 2011 , 15, 22-28		1
15	Solution of distributed sparse linear systems using PPARSLIB. <i>Lecture Notes in Computer Science</i> , 1998 , 503-509	0.9	1
14	Application of Krylov Subspace Methods in Fluid Dynamics. <i>Nuclear Science and Engineering</i> , 1990 , 105, 136-141	1.2	1
13	Applications of Trace Estimation Techniques. <i>Lecture Notes in Computer Science</i> , 2018 , 19-33	0.9	1
12	Parallel Numerical Computing from Illiac IV to Exascale – The Contributions of Ahmed H. Sameh 2012 , 1-44		1
11	ILUS: An incomplete LU preconditioner in sparse skyline format 1997 , 25, 739		1
10	A Non-perturbative Approach to Computing Seismic Normal Modes in Rotating Planets. <i>Journal of Scientific Computing</i> , 2022 , 91, 1	2.3	1
9	Scalable remote homology detection and fold recognition in massive protein networks. <i>Proteins: Structure, Function and Bioinformatics</i> , 2019 , 87, 478-491	4.2	0
8	Low Rank Approximation and Decomposition of Large Matrices Using Error Correcting Codes. <i>IEEE Transactions on Information Theory</i> , 2017 , 1-1	2.8	0
7	Find the dimension that counts: Fast dimension estimation and Krylov PCA 2019 , 720-728		0

6	Rational approximation preconditioners for sparse linear systems. <i>Journal of Computational and Applied Mathematics</i> , 2003 , 158, 419-442	2.4
5	Computational Materials Science and Engineering. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2020 , 123-150	0.8
4	Preconditioning Techniques for the Solution of the Helmholtz Equation by the Finite Element Method. <i>Lecture Notes in Computer Science</i> , 2003 , 847-858	0.9
3	Applying Parallel Direct Solver Techniques to Build Robust High Performance Preconditioners. <i>Lecture Notes in Computer Science</i> , 2006 , 611-619	0.9
2	ENHANCED ACCELERATION AND RECONDITIONING TECHNIQUES 1998 , 478-487	
1	Spectrum-Adapted Polynomial Approximation for Matrix Functions with Applications in Graph Signal Processing. <i>Algorithms</i> , 2020 , 13, 295	1.8