

Yousef Or Youcef Saad

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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 | A Non-perturbative Approach to Computing Seismic Normal Modes in Rotating Planets. <i>Journal of Scientific Computing</i> , 2022 , 91, 1 | 2.3 | 1 |
| 166 | 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 |
| 165 | Multicolor low-rank preconditioner for general sparse linear systems. <i>Numerical Linear Algebra With Applications</i> , 2020 , 27, e2316 | 1.6 | 1 |
| 164 | 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 |
| 163 | Computational Materials Science and Engineering. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2020 , 123-150 | 0.8 | |
| 162 | A rational approximation method for solving acoustic nonlinear eigenvalue problems. <i>Engineering Analysis With Boundary Elements</i> , 2020 , 111, 44-54 | 2.6 | 8 |
| 161 | Spectrum-Adapted Polynomial Approximation for Matrix Functions with Applications in Graph Signal Processing. <i>Algorithms</i> , 2020 , 13, 295 | 1.8 | |
| 160 | Sampling and multilevel coarsening algorithms for fast matrix approximations. <i>Numerical Linear Algebra With Applications</i> , 2019 , 26, e2234 | 1.6 | 3 |
| 159 | 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 |
| 158 | The Eigenvalues Slicing Library (EVSL): Algorithms, Implementation, and Software. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, C393-C415 | 2.6 | 11 |
| 157 | Spectrum-adapted Polynomial Approximation for Matrix Functions 2019 , | | 2 |
| 156 | Find the dimension that counts: Fast dimension estimation and Krylov PCA 2019 , 720-728 | | 0 |
| 155 | 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 |
| 154 | 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 |
| 153 | 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 |
| 152 | . <i>IEEE Transactions on Signal Processing</i> , 2018 , 1-1 | 4.8 | 31 |
| 151 | SMASH: Structured matrix approximation by separation and hierarchy. <i>Numerical Linear Algebra With Applications</i> , 2018 , 25, e2204 | 1.6 | 15 |

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| 150 | 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 |
| 149 | Beyond Automated Multilevel Substructuring: Domain Decomposition with Rational Filtering. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, C477-C502 | 2.6 | 5 |
| 148 | Shanks Sequence Transformations and Anderson Acceleration. <i>SIAM Review</i> , 2018 , 60, 646-669 | 7.4 | 25 |
| 147 | Applications of Trace Estimation Techniques. <i>Lecture Notes in Computer Science</i> , 2018 , 19-33 | 0.9 | 1 |
| 146 | Computing Planetary Interior Normal Modes with a Highly Parallel Polynomial Filtering Eigensolver 2018 , | | 11 |
| 145 | Fast Computation of Spectral Densities for Generalized Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A2749-A2773 | 2.6 | 6 |
| 144 | A Rational Function Preconditioner For Indefinite Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A1145-A1167 | 2.6 | 8 |
| 143 | Fast Estimation of Approximate Matrix Ranks Using Spectral Densities. <i>Neural Computation</i> , 2017 , 29, 1317-1351 | 2.9 | 10 |
| 142 | Fast Estimation of $\text{Str}(f(A))$ via Stochastic Lanczos Quadrature. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2017 , 38, 1075-1099 | 1.5 | 33 |
| 141 | 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 |
| 140 | Cucheb: A GPU implementation of the filtered Lanczos procedure. <i>Computer Physics Communications</i> , 2017 , 220, 332-340 | 4.2 | 9 |
| 139 | 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 |
| 138 | Formation enthalpies for transition metal alloys using machine learning. <i>Physical Review B</i> , 2017 , 95, | 3.3 | 16 |
| 137 | Improving the Incoherence of a Learned Dictionary via Rank Shrinkage. <i>Neural Computation</i> , 2017 , 29, 263-285 | 2.9 | 12 |
| 136 | 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 |
| 135 | Approximating Spectral Densities of Large Matrices. <i>SIAM Review</i> , 2016 , 58, 34-65 | 7.4 | 56 |
| 134 | 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 |
| 133 | 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 |

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|-----|--|-----|-----|
| 132 | Efficient estimation of eigenvalue counts in an interval. <i>Numerical Linear Algebra With Applications</i> , 2016 , 23, 674-692 | 1.6 | 46 |
| 131 | Schur complement-based domain decomposition preconditioners with low-rank corrections. <i>Numerical Linear Algebra With Applications</i> , 2016 , 23, 706-729 | 1.6 | 19 |
| 130 | PFEAST: A High Performance Sparse Eigenvalue Solver Using Distributed-Memory Linear Solvers 2016 , | | 9 |
| 129 | Computing Partial Spectra with Least-Squares Rational Filters. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, A3020-A3045 | 2.6 | 18 |
| 128 | Matrix Reordering Using Multilevel Graph Coarsening for ILU Preconditioning. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A391-A419 | 2.6 | 11 |
| 127 | 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 |
| 126 | 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 |
| 125 | Fast Updating Algorithms for Latent Semantic Indexing. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2014 , 35, 1105-1131 | 1.5 | 3 |
| 124 | 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 |
| 123 | Preconditioned Krylov Subspace Methods for Sampling Multivariate Gaussian Distributions. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, A588-A608 | 2.6 | 35 |
| 122 | Prewhitening high-dimensional fMRI data sets without eigendecomposition. <i>Neural Computation</i> , 2014 , 26, 907-19 | 2.9 | 4 |
| 121 | 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 |
| 120 | Divide and Conquer Low-Rank Preconditioners for Symmetric Matrices. <i>SIAM Journal of Scientific Computing</i> , 2013 , 35, A2069-A2095 | 2.6 | 21 |
| 119 | GPU-accelerated preconditioned iterative linear solvers. <i>Journal of Supercomputing</i> , 2013 , 63, 443-466 | 2.5 | 141 |
| 118 | A spectrum slicing method for the Kohn-Sham problem. <i>Computer Physics Communications</i> , 2012 , 183, 497-505 | 4.2 | 82 |
| 117 | A Filtered Lanczos Procedure for Extreme and Interior Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A2220-A2246 | 2.6 | 40 |
| 116 | Modification and Compensation Strategies for Threshold-based Incomplete Factorizations. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A48-A75 | 2.6 | 8 |
| 115 | . <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2012 , 24, 1216-1230 | 4.2 | 145 |

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|-----|---|-----|-----|
| 114 | Data mining for materials: Computational experiments with AB compounds. <i>Physical Review B</i> , 2012 , 85, | 3.3 | 74 |
| 113 | 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 |
| 112 | Krylov subspace methods for computing hydrodynamic interactions in brownian dynamics simulations. <i>Journal of Chemical Physics</i> , 2012 , 137, 064106 | 3.9 | 52 |
| 111 | Quantum algorithms for predicting the properties of complex materials 2012 , | | 2 |
| 110 | Parallel Numerical Computing from Illiac IV to Exascale: The Contributions of Ahmed H. Sameh 2012 , 1-44 | | 1 |
| 109 | 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 |
| 108 | Computing $\ A\ _F$ via Least Squares Polynomial Approximations. <i>SIAM Journal of Scientific Computing</i> , 2011 , 33, 195-222 | 2.6 | 26 |
| 107 | Exploiting Capabilities of Many Core Platforms in Reservoir Simulation 2011 , | | 24 |
| 106 | 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 |
| 105 | Rational approximation to the Fermi-Dirac function with applications in density functional theory. <i>Numerical Algorithms</i> , 2011 , 56, 455-479 | 2.1 | 10 |
| 104 | Harnessing molecular excited states with Lanczos chains. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 074204 | 1.8 | 14 |
| 103 | Hypergraph-based multilevel matrix approximation for text information retrieval 2010 , | | 3 |
| 102 | Multilevel manifold learning with application to spectral clustering 2010 , | | 6 |
| 101 | Numerical Methods for Electronic Structure Calculations of Materials. <i>SIAM Review</i> , 2010 , 52, 3-54 | 7.4 | 176 |
| 100 | Incremental incomplete LU factorizations with applications. <i>Numerical Linear Algebra With Applications</i> , 2010 , 17, 811-837 | 1.6 | 13 |
| 99 | Preconditioning Helmholtz linear systems. <i>Applied Numerical Mathematics</i> , 2010 , 60, 420-431 | 2.5 | 39 |
| 98 | 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 |
| 97 | 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 |

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|----|---|------|-----|
| 96 | Two classes of multiseant methods for nonlinear acceleration. <i>Numerical Linear Algebra With Applications</i> , 2009 , 16, 197-221 | 1.6 | 131 |
| 95 | Algorithms for the electronic and vibrational properties of nanocrystals. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 064207 | 1.8 | 8 |
| 94 | 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 |
| 93 | Graph-Based Multilevel Dimensionality Reduction with Applications to Eigenfaces and Latent Semantic Indexing 2008 , | | 8 |
| 92 | 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 |
| 91 | Farthest Centroids Divisive Clustering 2008 , | | 3 |
| 90 | Turbo charging time-dependent density-functional theory with Lanczos chains. <i>Journal of Chemical Physics</i> , 2008 , 128, 154105 | 3.9 | 207 |
| 89 | Block KrylovSchur method for large symmetric eigenvalue problems. <i>Numerical Algorithms</i> , 2008 , 47, 341-359 | 2.1 | 25 |
| 88 | 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 |
| 87 | Algorithms for the evolution of electronic properties in nanocrystals. <i>Computer Physics Communications</i> , 2007 , 177, 1-5 | 4.2 | 6 |
| 86 | Efficient first-principles calculations of the electronic structure of periodic systems. <i>Computer Physics Communications</i> , 2007 , 177, 339-347 | 4.2 | 17 |
| 85 | 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 |
| 84 | A ChebyshevDavidson Algorithm for Large Symmetric Eigenproblems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2007 , 29, 954-971 | 1.5 | 34 |
| 83 | A Greedy Strategy for Coarse-Grid Selection. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 1825-1853 | 2.6 | 18 |
| 82 | Greedy Coarsening Strategies for Nonsymmetric Problems. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 2115-2143 | 2.6 | 5 |
| 81 | Schur Complement Preconditioners for Distributed General Sparse Linear Systems 2007 , 127-138 | | 2 |
| 80 | Self-consistent-field calculations using Chebyshev-filtered subspace iteration. <i>Journal of Computational Physics</i> , 2006 , 219, 172-184 | 4.1 | 123 |
| 79 | Parallel self-consistent-field calculations via Chebyshev-filtered subspace acceleration. <i>Physical Review E</i> , 2006 , 74, 066704 | 2.4 | 127 |

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| 78 | 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 |
| 77 | 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 |
| 76 | Filtered Conjugate Residual-type Algorithms with Applications. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006 , 28, 845-870 | 1.5 | 22 |
| 75 | Multilevel Preconditioners Constructed From Inverse-Based ILUs. <i>SIAM Journal of Scientific Computing</i> , 2006 , 27, 1627-1650 | 2.6 | 90 |
| 74 | SchurRAS: A Restricted Version of the Overlapping Schur Complement Preconditioner. <i>SIAM Journal of Scientific Computing</i> , 2006 , 27, 1787-1801 | 2.6 | 10 |
| 73 | Evolution of magnetism in iron from the atom to the bulk. <i>Physical Review Letters</i> , 2006 , 97, 147201 | 7.4 | 81 |
| 72 | 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 |
| 71 | Diagonalization methods in PARSEC. <i>Physica Status Solidi (B): Basic Research</i> , 2006 , 243, 2188-2197 | 1.3 | 8 |
| 70 | Applying Parallel Direct Solver Techniques to Build Robust High Performance Preconditioners. <i>Lecture Notes in Computer Science</i> , 2006 , 611-619 | 0.9 | |
| 69 | Computation of Smallest Eigenvalues using Spectral Schur Complements. <i>SIAM Journal of Scientific Computing</i> , 2005 , 27, 458-481 | 2.6 | 30 |
| 68 | Multilevel ILU With Reorderings for Diagonal Dominance. <i>SIAM Journal of Scientific Computing</i> , 2005 , 27, 1032-1057 | 2.6 | 29 |
| 67 | Efficient computation of the coupling matrix in time-dependent density functional theory. <i>Computer Physics Communications</i> , 2005 , 167, 7-22 | 4.2 | 5 |
| 66 | Computing charge densities with partially reorthogonalized Lanczos. <i>Computer Physics Communications</i> , 2005 , 171, 175-186 | 4.2 | 18 |
| 65 | 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 |
| 64 | 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 |
| 63 | Using real space pseudopotentials for the electronic structure problem. <i>Handbook of Numerical Analysis</i> , 2003 , 10, 613-637 | 1 | 4 |
| 62 | Block Preconditioners for Saddle Point Problems. <i>Numerical Algorithms</i> , 2003 , 33, 367-379 | 2.1 | 3 |
| 61 | pARMS: a parallel version of the algebraic recursive multilevel solver. <i>Numerical Linear Algebra With Applications</i> , 2003 , 10, 485-509 | 1.6 | 64 |

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|----|---|-----|-----|
| 60 | Rational approximation preconditioners for sparse linear systems. <i>Journal of Computational and Applied Mathematics</i> , 2003 , 158, 419-442 | 2.4 | |
| 59 | Parallel implementation of time-dependent density functional theory. <i>Computer Physics Communications</i> , 2003 , 156, 22-42 | 4.2 | 33 |
| 58 | Finding Exact and Approximate Block Structures for ILU Preconditioning. <i>SIAM Journal of Scientific Computing</i> , 2003 , 24, 1107-1123 | 2.6 | 15 |
| 57 | Crout Versions of ILU for General Sparse Matrices. <i>SIAM Journal of Scientific Computing</i> , 2003 , 25, 716-728 | 2.6 | 73 |
| 56 | Block LU Preconditioners for Symmetric and Nonsymmetric Saddle Point Problems. <i>SIAM Journal of Scientific Computing</i> , 2003 , 25, 729-748 | 2.6 | 8 |
| 55 | Ab initio calculations for large dielectric matrices of confined systems. <i>Physical Review Letters</i> , 2003 , 90, 127401 | 7.4 | 63 |
| 54 | 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 | |
| 53 | Enhanced GMRES Acceleration Techniques for some CFD Problems. <i>International Journal of Computational Fluid Dynamics</i> , 2002 , 16, 1-20 | 1.2 | 16 |
| 52 | A Factored Approximate Inverse Preconditioner with Pivoting. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 23, 692-705 | 1.5 | 13 |
| 51 | 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 |
| 50 | 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 |
| 49 | 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 |
| 48 | Further analysis of minimum residual iterations. <i>Numerical Linear Algebra With Applications</i> , 2000 , 7, 67-93 | 2.6 | 10 |
| 47 | High-order ILU preconditioners for CFD problems. <i>International Journal for Numerical Methods in Fluids</i> , 2000 , 33, 767-788 | 1.9 | 21 |
| 46 | Preconditioning strategies for linear systems arising in tire design. <i>Numerical Linear Algebra With Applications</i> , 2000 , 7, 743-757 | 1.6 | 3 |
| 45 | Iterative solution of linear systems in the 20th century. <i>Journal of Computational and Applied Mathematics</i> , 2000 , 123, 1-33 | 2.4 | 270 |
| 44 | High-order ILU preconditioners for CFD problems 2000 , 33, 767 | | 2 |
| 43 | Distributed Schur Complement Techniques for General Sparse Linear Systems. <i>SIAM Journal of Scientific Computing</i> , 1999 , 21, 1337-1356 | 2.6 | 85 |

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|----|---|-----|-----|
| 42 | Modified Krylov acceleration for parallel environments. <i>Applied Numerical Mathematics</i> , 1999 , 30, 191-212 | 2.5 | 2 |
| 41 | Electronic structure calculations for plane-wave codes without diagonalization. <i>Computer Physics Communications</i> , 1999 , 118, 21-30 | 4.2 | 25 |
| 40 | 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 |
| 39 | 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 |
| 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 | Preconditioning the Matrix Exponential Operator with Applications. <i>Journal of Scientific Computing</i> , 1998 , 13, 275-302 | 2.3 | 8 |
| 36 | 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 |
| 35 | 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 |
| 34 | Approximate Inverse Preconditioners via Sparse-Sparse Iterations. <i>SIAM Journal of Scientific Computing</i> , 1998 , 19, 995-1023 | 2.6 | 156 |
| 33 | Solution of distributed sparse linear systems using PPARSLIB. <i>Lecture Notes in Computer Science</i> , 1998 , 503-509 | 0.9 | 1 |
| 32 | ENHANCED ACCELERATION AND RECONDITIONING TECHNIQUES 1998 , 478-487 | | |
| 31 | Approximate Inverse Techniques for Block-Partitioned Matrices. <i>SIAM Journal of Scientific Computing</i> , 1997 , 18, 1657-1675 | 2.6 | 65 |
| 30 | Analysis of Augmented Krylov Subspace Methods. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1997 , 18, 435-449 | 1.5 | 79 |
| 29 | Experimental study of ILU preconditioners for indefinite matrices. <i>Journal of Computational and Applied Mathematics</i> , 1997 , 86, 387-414 | 2.4 | 163 |
| 28 | Deflated and Augmented Krylov Subspace Techniques. <i>Numerical Linear Algebra With Applications</i> , 1997 , 4, 43-66 | 1.6 | 116 |
| 27 | 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 |
| 26 | ILUS: An incomplete LU preconditioner in sparse skyline format 1997 , 25, 739 | | 1 |
| 25 | Deflated and Augmented Krylov Subspace Techniques 1997 , 4, 43 | | 18 |

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|----|--|-----|-----|
| 24 | Overlapping Domain Decomposition Algorithms for General Sparse Matrices. <i>Numerical Linear Algebra With Applications</i> , 1996 , 3, 221-237 | 1.6 | 40 |
| 23 | 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 |
| 22 | Overlapping Domain Decomposition Algorithms for General Sparse Matrices 1996 , 3, 221 | | 14 |
| 21 | Robust preconditioning of large, sparse, symmetric eigenvalue problems. <i>Journal of Computational and Applied Mathematics</i> , 1995 , 64, 197-215 | 2.4 | 27 |
| 20 | 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 |
| 19 | ILUT: A dual threshold incomplete LU factorization. <i>Numerical Linear Algebra With Applications</i> , 1994 , 1, 387-402 | 1.6 | 464 |
| 18 | BASIC SPARSE MATRIX COMPUTATIONS ON THE CM-5. <i>International Journal of Modern Physics C</i> , 1993 , 04, 65-83 | 1.1 | 4 |
| 17 | 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 |
| 16 | Application of Krylov Subspace Methods in Fluid Dynamics. <i>Nuclear Science and Engineering</i> , 1990 , 105, 136-141 | 1.2 | 1 |
| 15 | Efficient numerical simulation of electron states in quantum wires. <i>Journal of Applied Physics</i> , 1990 , 68, 3461-3469 | 2.5 | 66 |
| 14 | Numerical solution of large nonsymmetric eigenvalue problems. <i>Computer Physics Communications</i> , 1989 , 53, 71-90 | 4.2 | 57 |
| 13 | Data communication in hypercubes. <i>Journal of Parallel and Distributed Computing</i> , 1989 , 6, 115-135 | 4.4 | 76 |
| 12 | Data communication in parallel architectures. <i>Parallel Computing</i> , 1989 , 11, 131-150 | 1 | 98 |
| 11 | Preconditioning techniques for nonsymmetric and indefinite linear systems. <i>Journal of Computational and Applied Mathematics</i> , 1988 , 24, 89-105 | 2.4 | 93 |
| 10 | 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 |
| 9 | Complex shift and invert strategies for real matrices. <i>Linear Algebra and Its Applications</i> , 1987 , 88-89, 575-595 | 0.9 | 47 |
| 8 | Parallel direct methods for solving banded linear systems. <i>Linear Algebra and Its Applications</i> , 1987 , 88-89, 623-650 | 0.9 | 8 |
| 7 | Solving elliptic partial differential equations on the hypercube multiprocessor. <i>Applied Numerical Mathematics</i> , 1987 , 3, 81-88 | 2.5 | 3 |

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|---|---|-----|-----|
| 6 | Communication complexity of the Gaussian elimination algorithm on multiprocessors. <i>Linear Algebra and Its Applications</i> , 1986 , 77, 315-340 | 0.9 | 26 |
| 5 | Complexity of dense-linear-system solution on a multiprocessor ring. <i>Linear Algebra and Its Applications</i> , 1986 , 77, 205-239 | 0.9 | 41 |
| 4 | 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 |
| 3 | The Impact of Parallel Architectures on The Solution of Eigenvalue Problems. <i>North-Holland Mathematics Studies</i> , 1986 , 37-49 | | 3 |
| 2 | Conjugate gradient-like algorithms for solving nonsymmetric linear systems. <i>Mathematics of Computation</i> , 1985 , 44, 417-417 | 1.6 | 139 |
| 1 | Chebyshev acceleration techniques for solving nonsymmetric eigenvalue problems. <i>Mathematics of Computation</i> , 1984 , 42, 567-567 | 1.6 | 148 |