

Jennifer A Scott

List of Publications by Year in descending order

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81
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1,541
citations

331259

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36
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82
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82
docs citations

82
times ranked

979
citing authors

#	ARTICLE	IF	CITATIONS
1	A null-space approach for large-scale symmetric saddle point systems with a small and non zero (2, 2) block. Numerical Algorithms, 2022, 90, 1639-1667.	1.1	4
2	A Computational Study of Using Black-box QR Solvers for Large-scale Sparse-dense Linear Least Squares Problems. ACM Transactions on Mathematical Software, 2022, 48, 1-24.	1.6	3
3	A Robust Algebraic Domain Decomposition Preconditioner for Sparse Normal Equations. SIAM Journal of Scientific Computing, 2022, 44, A1047-A1068.	1.3	5
4	Solving large linear least squares problems with linear equality constraints. BIT Numerical Mathematics, 2022, 62, 1765-1787.	1.0	1
5	Randomised preconditioning for the forcing formulation of weak constraint 4D-Var. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 3719-3734.	1.0	1
6	Strengths and Limitations of Stretching for Least-squares Problems with Some Dense Rows. ACM Transactions on Mathematical Software, 2021, 47, 1-25.	1.6	14
7	Two-Level Nyström-Schur Preconditioner for Sparse Symmetric Positive Definite Matrices. SIAM Journal of Scientific Computing, 2021, 43, A3837-A3861.	1.3	4
8	Spectral estimates for saddle point matrices arising in weak constraint four-dimensional variational data assimilation. Numerical Linear Algebra With Applications, 2020, 27, e2313.	0.9	2
9	Sparse Stretching for Solving Sparse-Dense Linear Least-Squares Problems. SIAM Journal of Scientific Computing, 2019, 41, A1604-A1625.	1.3	10
10	Convergence and evaluation-complexity analysis of a regularized tensor-Newton method for solving nonlinear least-squares problems. Computational Optimization and Applications, 2019, 73, 1-35.	0.9	6
11	A Schur complement approach to preconditioning sparse linear least-squares problems with some dense rows. Numerical Algorithms, 2018, 79, 1147-1168.	1.1	9
12	Preordering saddle-point systems for sparse $L^D L^T$ factorization without pivoting. Numerical Linear Algebra With Applications, 2018, 25, e2173.	0.9	1
13	A comparative study of null-space factorizations for sparse symmetric saddle point systems. Numerical Linear Algebra With Applications, 2018, 25, e2103.	0.9	10
14	Using Jacobi iterations and blocking for solving sparse triangular systems in incomplete factorization preconditioning. Journal of Parallel and Distributed Computing, 2018, 119, 219-230.	2.7	27
15	A Max-Plus Approach to Incomplete Cholesky Factorization Preconditioners. SIAM Journal of Scientific Computing, 2018, 40, A1987-A2004.	1.3	4
16	A Note on Performance Profiles for Benchmarking Software. ACM Transactions on Mathematical Software, 2017, 43, 1-5.	1.6	60
17	Improving the stability and robustness of incomplete symmetric indefinite factorization preconditioners. Numerical Linear Algebra With Applications, 2017, 24, e2099.	0.9	3
18	The State-of-the-Art of Preconditioners for Sparse Linear Least-Squares Problems. ACM Transactions on Mathematical Software, 2017, 43, 1-35.	1.6	21

#	ARTICLE	IF	CITATIONS
19	Numerically Aware Orderings for Sparse Symmetric Indefinite Linear Systems. ACM Transactions on Mathematical Software, 2017, 44, 1-22.	1.6	0
20	Solving Mixed Sparse-Dense Linear Least-Squares Problems by Preconditioned Iterative Methods. SIAM Journal of Scientific Computing, 2017, 39, A2422-A2437.	1.3	10
21	On Using Cholesky-Based Factorizations and Regularization for Solving Rank-Deficient Sparse Linear Least-Squares Problems. SIAM Journal of Scientific Computing, 2017, 39, C319-C339.	1.3	4
22	Level-set topology optimization with many linear buckling constraints using an efficient and robust eigensolver. International Journal for Numerical Methods in Engineering, 2016, 107, 1029-1053.	1.5	54
23	Preconditioning of Linear Least Squares by Robust Incomplete Factorization for Implicitly Held Normal Equations. SIAM Journal of Scientific Computing, 2016, 38, C603-C623.	1.3	6
24	A Sparse Symmetric Indefinite Direct Solver for GPU Architectures. ACM Transactions on Mathematical Software, 2016, 42, 1-25.	1.6	53
25	On the use of suboptimal matchings for scaling and ordering sparse symmetric matrices. Numerical Linear Algebra With Applications, 2015, 22, 648-663.	0.9	9
26	Level-based heuristics and hill climbing for the antibandwidth maximization problem. Numerical Linear Algebra With Applications, 2014, 21, 51-67.	0.9	2
27	On Signed Incomplete Cholesky Factorization Preconditioners for Saddle-Point Systems. SIAM Journal of Scientific Computing, 2014, 36, A2984-A3010.	1.3	18
28	Chebyshev acceleration of iterative refinement. Numerical Algorithms, 2014, 66, 591-608.	1.1	14
29	On Positive Semidefinite Modification Schemes for Incomplete Cholesky Factorization. SIAM Journal of Scientific Computing, 2014, 36, A609-A633.	1.3	22
30	HSL_MI28. ACM Transactions on Mathematical Software, 2014, 40, 1-19.	1.6	21
31	Compressed Threshold Pivoting for Sparse Symmetric Indefinite Systems. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 783-817.	0.7	6
32	An efficient analyse phase for element problems. Numerical Linear Algebra With Applications, 2013, 20, 397-412.	0.9	4
33	Optimal Weighted Matchings for Rank-Deficient Sparse Matrices. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 1431-1447.	0.7	6
34	Maximising umami taste in meat using natural ingredients: effects on chemistry, sensory perception and hedonic liking in young and old consumers. Journal of the Science of Food and Agriculture, 2013, 93, 3312-3321.	1.7	55
35	Pivoting strategies for tough sparse indefinite systems. ACM Transactions on Mathematical Software, 2013, 40, 1-19.	1.6	19
36	New Parallel Sparse Direct Solvers for Multicore Architectures. Algorithms, 2013, 6, 702-725.	1.2	23

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37	A fast method for binary programming using first-order derivatives, with application to topology optimization with buckling constraints. International Journal for Numerical Methods in Engineering, 2012, 92, 1026-1043.	1.5	19
38	The importance of structure in incomplete factorization preconditioners. BIT Numerical Mathematics, 2011, 51, 385-404.	1.0	9
39	Partial factorization of a dense symmetric indefinite matrix. ACM Transactions on Mathematical Software, 2011, 38, 1-19.	1.6	9
40	Design of a Multicore Sparse Cholesky Factorization Using DAGs. SIAM Journal of Scientific Computing, 2010, 32, 3627-3649.	1.3	54
41	A note on fast approximate minimum degree orderings for symmetric matrices with some dense rows. Numerical Linear Algebra With Applications, 2010, 17, 43-55.	0.9	4
42	HSL_MI20: An efficient AMG preconditioner for finite element problems in 3D. International Journal for Numerical Methods in Engineering, 2010, 82, 64-98.	1.5	57
43	Scaling and pivoting in an out-of-core sparse direct solver. ACM Transactions on Mathematical Software, 2010, 37, 1-23.	1.6	8
44	Algorithm 891. ACM Transactions on Mathematical Software, 2009, 36, 1-12.	1.6	99
45	An efficient out-of-core multifrontal solver for large-scale unsymmetric element problems. International Journal for Numerical Methods in Engineering, 2009, 77, 901-921.	1.5	8
46	An out-of-core sparse Cholesky solver. ACM Transactions on Mathematical Software, 2009, 36, 1-33.	1.6	27
47	Experiences of sparse direct symmetric solvers. ACM Transactions on Mathematical Software, 2007, 33, 18.	1.6	8
48	A numerical evaluation of sparse direct solvers for the solution of large sparse symmetric linear systems of equations. ACM Transactions on Mathematical Software, 2007, 33, 10.	1.6	120
49	The Design of a New Out-of-Core Multifrontal Solver. , 2007, , 598-607.		0
50	Reducing the Total Bandwidth of a Sparse Unsymmetric Matrix. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 805-821.	0.7	25
51	A frontal solver for the 21st century. Communications in Numerical Methods in Engineering, 2006, 22, 1015-1029.	1.3	5
52	An Evaluation of Sparse Direct Symmetric Solvers: An Introduction and Preliminary Findings. Lecture Notes in Computer Science, 2006, , 818-827.	1.0	2
53	Stabilized bordered block diagonal forms for parallel sparse solvers. Parallel Computing, 2005, 31, 275-289.	1.3	18
54	Ordering techniques for singly bordered block diagonal forms for unsymmetric parallel sparse direct solvers. Numerical Linear Algebra With Applications, 2005, 12, 877-894.	0.9	10

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55	Multilevel hybrid spectral element ordering algorithms. Communications in Numerical Methods in Engineering, 2005, 21, 233-245.	1.3	1
56	A parallel direct solver for large sparse highly unsymmetric linear systems. ACM Transactions on Mathematical Software, 2004, 30, 95-117.	1.6	14
57	A numerical evaluation of HSL packages for the direct solution of large sparse, symmetric linear systems of equations. ACM Transactions on Mathematical Software, 2004, 30, 300-325.	1.6	26
58	Parallel frontal solvers for large sparse linear systems. ACM Transactions on Mathematical Software, 2003, 29, 395-417.	1.6	17
59	Implementing Hager's exchange methods for matrix profile reduction. ACM Transactions on Mathematical Software, 2002, 28, 377-391.	1.6	13
60	A Multilevel Algorithm for Wavefront Reduction. SIAM Journal of Scientific Computing, 2001, 23, 1352-1375.	1.3	36
61	Two-stage ordering for unsymmetric parallel row-by-row frontal solvers. Computers and Chemical Engineering, 2001, 25, 323-332.	2.0	6
62	The design of a portable parallel frontal solver for chemical process engineering problems. Computers and Chemical Engineering, 2001, 25, 1699-1709.	2.0	8
63	A parallel frontal solver for finite element applications. International Journal for Numerical Methods in Engineering, 2001, 50, 1131-1144.	1.5	19
64	Row ordering for frontal solvers in chemical process engineering. Computers and Chemical Engineering, 2000, 24, 1865-1880.	2.0	5
65	On ordering elements for a frontal solver. Communications in Numerical Methods in Engineering, 1999, 15, 309-324.	1.3	17
66	A new row ordering strategy for frontal solvers. Numerical Linear Algebra With Applications, 1999, 6, 189-211.	0.9	9
67	A frontal code for the solution of sparse positive-definite symmetric systems arising from finite-element applications. ACM Transactions on Mathematical Software, 1999, 25, 404-424.	1.6	16
68	Performance issues for frontal schemes on a cache-based high-performance computer. International Journal for Numerical Methods in Engineering, 1998, 42, 127-143.	1.5	7
69	Sparse Approximate-Inverse Preconditioners Using Norm-Minimization Techniques. SIAM Journal of Scientific Computing, 1998, 19, 605-625.	1.3	60
70	ELEMENT RESEQUENCING FOR USE WITH A MULTIPLE FRONT ALGORITHM. International Journal for Numerical Methods in Engineering, 1996, 39, 3999-4020.	1.5	11
71	A mathematical model of a biosensor. Journal of Engineering Mathematics, 1996, 30, 321-337.	0.6	23
72	Frontal software for the solution of sparse linear equations. Lecture Notes in Computer Science, 1996, , 227-238.	1.0	0

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73	An Arnoldi code for computing selected eigenvalues of sparse, real, unsymmetric matrices. ACM Transactions on Mathematical Software, 1995, 21, 432-475.	1.6	43
74	The Factorization of Sparse Symmetric Indefinite Matrices. IMA Journal of Numerical Analysis, 1991, 11, 181-204.	1.5	83
75	The use of profile reduction algorithms with a frontal code. International Journal for Numerical Methods in Engineering, 1989, 28, 2555-2568.	1.5	48
76	On the Exact Order of Convergence of Discrete Methods for Volterra-type Equations. IMA Journal of Numerical Analysis, 1988, 8, 511-515.	1.5	3
77	A nonlinear weakly singular Volterra integro-differential equation arising from a reaction-diffusion study in a small cell. Journal of Computational and Applied Mathematics, 1987, 18, 289-305.	1.1	27
78	On the order of the error in discretization methods for weakly singular second kind non-smooth solutions. BIT Numerical Mathematics, 1985, 25, 623-634.	1.0	37
79	A Unified Approach to Convergence Analysis of Discretization Methods for Volterra-type Equations. IMA Journal of Numerical Analysis, 1985, 5, 41-57.	1.5	8
80	Repeated Integral Inequalities. IMA Journal of Numerical Analysis, 1984, 4, 99-107.	1.5	8
81	On time-parallel preconditioning for the state formulation of incremental weak constraint 4D-Var. Quarterly Journal of the Royal Meteorological Society, 0, , .	1.0	2