

# Miroslav Těma

## List of Publications by Year in descending order

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39  
papers

1,670  
citations

394421

19  
h-index

330143

37  
g-index

40  
all docs

40  
docs citations

40  
times ranked

652  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Sparse Approximate Inverse Preconditioner for the Conjugate Gradient Method. SIAM Journal of Scientific Computing, 1996, 17, 1135-1149.	2.8	312
2	A Sparse Approximate Inverse Preconditioner for Nonsymmetric Linear Systems. SIAM Journal of Scientific Computing, 1998, 19, 968-994.	2.8	239
3	A comparative study of sparse approximate inverse preconditioners. Applied Numerical Mathematics, 1999, 30, 305-340.	2.1	208
4	Robust Approximate Inverse Preconditioning for the Conjugate Gradient Method. SIAM Journal of Scientific Computing, 2000, 22, 1318-1332.	2.8	133
5	Preconditioning Highly Indefinite and Nonsymmetric Matrices. SIAM Journal of Scientific Computing, 2000, 22, 1333-1353.	2.8	105
6	A robust incomplete factorization preconditioner for positive definite matrices. Numerical Linear Algebra With Applications, 2003, 10, 385-400.	1.6	77
7	Orderings for Factorized Sparse Approximate Inverse Preconditioners. SIAM Journal of Scientific Computing, 2000, 21, 1851-1868.	2.8	60
8	Stabilized and block approximate inverse preconditioners for problems in solid and structural mechanics. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 6533-6554.	6.6	52
9	A Robust Preconditioner with Low Memory Requirements for Large Sparse Least Squares Problems. SIAM Journal of Scientific Computing, 2003, 25, 499-512.	2.8	38
10	A parallel solver for large-scale Markov chains. Applied Numerical Mathematics, 2002, 41, 135-153.	2.1	36
11	Efficient Preconditioning of Sequences of Nonsymmetric Linear Systems. SIAM Journal of Scientific Computing, 2007, 29, 1918-1941.	2.8	34
12	Schur Complement Systems in the Mixed-Hybrid Finite Element Approximation of the Potential Fluid Flow Problem. SIAM Journal of Scientific Computing, 2000, 22, 704-723.	2.8	33
13	Numerical experiments with two approximate inverse preconditioners. BIT Numerical Mathematics, 1998, 38, 234-241.	2.0	27
14	Balanced Incomplete Factorization. SIAM Journal of Scientific Computing, 2008, 30, 2302-2318.	2.8	27
15	Preconditioner updates for solving sequences of linear systems in matrix-free environment. Numerical Linear Algebra With Applications, 2010, 17, 997-1019.	1.6	25
16	Mixed-hybrid finite element approximation of the potential fluid flow problem. Journal of Computational and Applied Mathematics, 1995, 63, 383-392.	2.0	24
17	On Positive Semidefinite Modification Schemes for Incomplete Cholesky Factorization. SIAM Journal of Scientific Computing, 2014, 36, A609-A633.	2.8	22
18	A Note on the LDLT Decomposition of Matrices from Saddle-Point Problems. SIAM Journal on Matrix Analysis and Applications, 2002, 23, 903-915.	1.4	21

#	ARTICLE	IF	CITATIONS
19	HSL_MI28. ACM Transactions on Mathematical Software, 2014, 40, 1-19.	2.9	21
20	Threshold hypergraphs. Discrete Mathematics, 1985, 54, 193-200.	0.7	19
21	Numerical stability of orthogonalization methods with a non-standard inner product. BIT Numerical Mathematics, 2012, 52, 1035-1058.	2.0	19
22	Preconditioner updates applied to CFD model problems. Applied Numerical Mathematics, 2008, 58, 1628-1641.	2.1	18
23	On Signed Incomplete Cholesky Factorization Preconditioners for Saddle-Point Systems. SIAM Journal of Scientific Computing, 2014, 36, A2984-A3010.	2.8	18
24	Improved Balanced Incomplete Factorization. SIAM Journal on Matrix Analysis and Applications, 2010, 31, 2431-2452.	1.4	16
25	Preconditioned Iterative Methods for Solving Linear Least Squares Problems. SIAM Journal of Scientific Computing, 2014, 36, A2002-A2022.	2.8	16
26	Matrix-free preconditioning using partial matrix estimation. BIT Numerical Mathematics, 2006, 46, 711-729.	2.0	11
27	Effects of problem decomposition (partitioning) on the rate of convergence of parallel numerical algorithms. Numerical Linear Algebra With Applications, 2003, 10, 445-465.	1.6	10
28	The importance of structure in incomplete factorization preconditioners. BIT Numerical Mathematics, 2011, 51, 385-404.	2.0	9
29	Implementation of a direct procedure for critical point computations using preconditioned iterative solvers. Computers and Structures, 2012, 108-109, 110-117.	4.4	8
30	Schur complement reduction in the mixed-hybrid approximation of Darcy's law: rounding error analysis. Journal of Computational and Applied Mathematics, 2000, 117, 159-173.	2.0	7
31	Preconditioning of Linear Least Squares by Robust Incomplete Factorization for Implicitly Held Normal Equations. SIAM Journal of Scientific Computing, 2016, 38, C603-C623.	2.8	6
32	Approximate inverse preconditioners with adaptive dropping. Advances in Engineering Software, 2015, 84, 13-20.	3.8	5
33	Factorized Approximate Inverses with Adaptive Dropping. SIAM Journal of Scientific Computing, 2016, 38, A1807-A1820.	2.8	5
34	On Incremental Condition Estimators in the 2-Norm. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 174-197.	1.4	4
35	Primal vs. Dual Variable Approach for Mixed-Hybrid Finite Element Approximation of the Potential Fluid Flow Problem in Porous Media. Lecture Notes in Computer Science, 2001, , 417-424.	1.3	3
36	Improving Triangular Preconditioner Updates for Nonsymmetric Linear Systems. Lecture Notes in Computer Science, 2008, , 737-744.	1.3	1

#	ARTICLE	IF	CITATIONS
37	Python-based finite element code used as a universal and modular tool for electronic structure calculation. , 2013, , .		0
38	Factorization-Based Graph Repartitionings. Lecture Notes in Computer Science, 2010, , 771-778.	1.3	0
39	Preconditioners based on the ISM factorization. Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica, 2015, 23, 17-27.	0.3	0