

# Gerard Meurant

## List of Publications by Year in descending order

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49  
papers

1,876  
citations

535685

17  
h-index

325983

40  
g-index

54  
all docs

54  
docs citations

54  
times ranked

999  
citing authors

#	ARTICLE	IF	CITATIONS
1	Accurate error estimation in CG. Numerical Algorithms, 2021, 88, 1337-1359.	1.1	4
2	On prescribing the convergence behavior of the conjugate gradient algorithm. Numerical Algorithms, 2020, 84, 1353-1380.	1.1	6
3	On the residual norms, the Ritz values and the harmonic Ritz values that can be generated by restarted GMRES. Numerical Algorithms, 2020, 84, 1329-1352.	1.1	1
4	On the computation of sets of points with low Lebesgue constant on the unit disk. Journal of Computational and Applied Mathematics, 2019, 345, 388-404.	1.1	0
5	Approximating the extreme Ritz values and upper bounds for the A-norm of the error in CG. Numerical Algorithms, 2019, 82, 937-968.	1.1	8
6	The Coefficients of the FOM and GMRES Residual Polynomials. SIAM Journal on Matrix Analysis and Applications, 2017, 38, 96-117.	0.7	3
7	The distance of an eigenvector to a Krylov subspace and the convergence of the Arnoldi method for eigenvalue problems. Linear Algebra and Its Applications, 2016, 504, 387-405.	0.4	1
8	On the convergence of Q-OR and Q-MR Krylov methods for solving nonsymmetric linear systems. BIT Numerical Mathematics, 2016, 56, 77-97.	1.0	8
9	The role eigenvalues play in forming GMRES residual norms with non-normal matrices. Numerical Algorithms, 2015, 68, 143-165.	1.1	16
10	Prescribing the behavior of early terminating GMRES and Arnoldi iterations. Numerical Algorithms, 2014, 65, 69-90.	1.1	12
11	Fast variants of the Golub and Welsch algorithm for symmetric weight functions in Matlab. Numerical Algorithms, 2014, 67, 491-506.	1.1	7
12	Necessary and sufficient conditions for GMRES complete and partial stagnation. Applied Numerical Mathematics, 2014, 75, 100-107.	1.2	4
13	On investigating GMRES convergence using unitary matrices. Linear Algebra and Its Applications, 2014, 450, 83-107.	0.4	6
14	On computing quadrature-based bounds for the A-norm of the error in conjugate gradients. Numerical Algorithms, 2013, 62, 163-191.	1.1	14
15	GMRES and the Arioli, Ptáček, and Strakoš parametrization. BIT Numerical Mathematics, 2012, 52, 687-702.	1.0	9
16	Any Ritz Value Behavior Is Possible for Arnoldi and for GMRES. SIAM Journal on Matrix Analysis and Applications, 2012, 33, 958-978.	0.7	24
17	The computation of isotropic vectors. Numerical Algorithms, 2012, 60, 193-204.	1.1	3
18	Estimates of the Norm of the Error in Solving Linear Systems with FOM and GMRES. SIAM Journal of Scientific Computing, 2011, 33, 2686-2705.	1.3	4

#	ARTICLE	IF	CITATIONS
19	On the Residual Norm in FOM and GMRES. SIAM Journal on Matrix Analysis and Applications, 2011, 32, 394-411.	0.7	4
20	New results on the convergence of the conjugate gradient method. Numerical Linear Algebra With Applications, 2009, 16, 223-236.	0.9	1
21	Gene H. Golub 1932-2007. Numerical Algorithms, 2009, 51, 1-4.	1.1	0
22	Estimates of the trace of the inverse of a symmetric matrix using the modified Chebyshev algorithm. Numerical Algorithms, 2009, 51, 309-318.	1.1	19
23	Matrices, Moments and Quadrature with Applications. , 2009, , .		139
24	The Lanczos and conjugate gradient algorithms in finite precision arithmetic. Acta Numerica, 2006, 15, 471-542.	6.3	101
25	Estimates of the l2 norm of the error in the conjugate gradient algorithm. Numerical Algorithms, 2005, 40, 157-169.	1.1	17
26	A Multilevel AINV Preconditioner. Numerical Algorithms, 2002, 29, 107-129.	1.1	12
27	On the Incomplete Cholesky Decomposition of a Class of Perturbed Matrices. SIAM Journal of Scientific Computing, 2001, 23, 419-429.	1.3	18
28	Local preconditioners for two-level non-overlapping domain decomposition methods. Numerical Linear Algebra With Applications, 2001, 8, 207-227.	0.9	20
29	Gaussian elimination for the solution of linear systems of equations. Handbook of Numerical Analysis, 2000, 7, 3-170.	0.9	1
30	Title is missing!. Numerical Algorithms, 1999, 22, 353-365.	1.1	25
31	The computation of bounds for the norm of the error in the conjugate gradient algorithm. Numerical Algorithms, 1997, 16, 77-87.	1.1	37
32	Matrices, moments and quadrature II; How to compute the norm of the error in iterative methods. BIT Numerical Mathematics, 1997, 37, 687-705.	1.0	75
33	Complex conjugate gradient methods. Numerical Algorithms, 1993, 4, 379-406.	1.1	28
34	A Review on the Inverse of Symmetric Tridiagonal and Block Tridiagonal Matrices. SIAM Journal on Matrix Analysis and Applications, 1992, 13, 707-728.	0.7	295
35	A domain decomposition method for parabolic problems. Applied Numerical Mathematics, 1991, 8, 427-441.	1.2	21
36	Parallel Algorithms for Supercomputers. , 1991, , 289-318.		1

#	ARTICLE	IF	CITATIONS
37	Domain Decomposition methods for solving large sparse linear systems. , 1991, , 185-206.		3
38	The effect of ordering on preconditioned conjugate gradients. BIT Numerical Mathematics, 1989, 29, 635-657.	1.0	297
39	Practical use of the conjugate gradient method on parallel supercomputers. Computer Physics Communications, 1989, 53, 467-477.	3.0	6
40	Iterative methods for multiprocessor vector computers. Computer Physics Reports, 1989, 11, 51-80.	2.3	8
41	Domain decomposition preconditioners for the conjugate gradient method. Calcolo, 1988, 25, 103-119.	0.6	10
42	Domain Decomposition Methods for Partial Differential Equations On Parallel Computers. The International Journal of Supercomputer Applications, 1988, 2, 5-12.	0.6	22
43	Multitasking the conjugate gradient method on the CRAY X-MP/48. Parallel Computing, 1987, 5, 267-280.	1.3	96
44	Multitasking on the CRAY X-MP. Journal of Systems and Software, 1986, 6, 17-20.	3.3	2
45	On computing INV block preconditionings for the conjugate gradient method. BIT Numerical Mathematics, 1986, 26, 493-504.	1.0	29
46	Block Preconditioning for the Conjugate Gradient Method. SIAM Journal on Scientific and Statistical Computing, 1985, 6, 220-252.	1.5	291
47	The block preconditioned conjugate gradient method on vector computers. BIT Numerical Mathematics, 1984, 24, 623-633.	1.0	76
48	Bifurcation and stability in a chemical system. Journal of Mathematical Analysis and Applications, 1977, 59, 69-92.	0.5	11
49	Any admissible harmonic Ritz value set is possible for GMRES. Electronic Transactions on Numerical Analysis, 0, 27, 37-56.	0.0	7