Yvan Notay

List of Publications by Year in descending order

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		430754	345118
45	1,325	18	36
papers	citations	h-index	g-index

45	45	45	630
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Algebraic Multigrid for Stokes Equations. SIAM Journal of Scientific Computing, 2017, 39, S88-S111.	1.3	8
2	An Efficient Multigrid Method for Graph Laplacian Systems II: Robust Aggregation. SIAM Journal of Scientific Computing, 2017, 39, S379-S403.	1.3	11
3	Algebraic Two-Level Convergence Theory for Singular Systems. SIAM Journal on Matrix Analysis and Applications, 2016, 37, 1419-1439.	0.7	7
4	A new algebraic multigrid approach for Stokes problems. Numerische Mathematik, 2016, 132, 51-84.	0.9	8
5	Special issue on multigrid methods. Computing and Visualization in Science, 2015, 17, 109-109.	1.2	0
6	Algebraic Theory of Two-Grid Methods. Numerical Mathematics, 2015, 8, 168-198.	0.6	12
7	A massively parallel solver for discrete Poisson-like problems. Journal of Computational Physics, 2015, 281, 237-250.	1.9	35
8	Algebraic Multigrid for Moderate Order Finite Elements. SIAM Journal of Scientific Computing, 2014, 36, A1678-A1707.	1.3	6
9	A Simple and Efficient Segregated Smoother for the Discrete Stokes Equations. SIAM Journal of Scientific Computing, 2014, 36, A1187-A1206.	1.3	31
10	A New Analysis of Block Preconditioners for Saddle Point Problems. SIAM Journal on Matrix Analysis and Applications, 2014, 35, 143-173.	0.7	42
11	CPU and GPU Performance of Large Scale Numerical Simulations in Geophysics. Lecture Notes in Computer Science, 2014, , 12-23.	1.0	3
12	Further comparison of additive and multiplicative coarse grid correction. Applied Numerical Mathematics, 2013, 65, 53-62.	1.2	10
13	An Algebraic Multigrid Method with Guaranteed Convergence Rate. SIAM Journal of Scientific Computing, 2012, 34, A1079-A1109.	1.3	163
14	Aggregation-Based Algebraic Multigrid for Convection-Diffusion Equations. SIAM Journal of Scientific Computing, 2012, 34, A2288-A2316.	1.3	139
15	Smoothing factor, order of prolongation and actual multigrid convergence. Numerische Mathematik, 2011, 118, 457-483.	0.9	14
16	Algebraic analysis of aggregation-based multigrid. Numerical Linear Algebra With Applications, 2011, 18, 539-564.	0.9	31
17	When does twoâ€grid optimality carry over to the Vâ€cycle?. Numerical Linear Algebra With Applications, 2010, 17, 273-290.	0.9	5
18	Algebraic analysis of twoâ€grid methods: The nonsymmetric case. Numerical Linear Algebra With Applications, 2010, 17, 73-96.	0.9	31

#	Article	IF	Citations
19	Comparison of bounds for V-cycle multigrid. Applied Numerical Mathematics, 2010, 60, 176-192.	1.2	8
20	Controlling Inner Iterations in the Jacobiâ€“Davidson Method. SIAM Journal on Matrix Analysis and Applications, 2009, 31, 460-477.	0.7	21
21	Recursive Krylovâ€based multigrid cycles. Numerical Linear Algebra With Applications, 2008, 15, 473-487.	0.9	84
22	Analysis of Aggregation-Based Multigrid. SIAM Journal of Scientific Computing, 2008, 30, 1082-1103.	1.3	31
23	Convergence Analysis of Perturbed Twoâ€Grid and Multigrid Methods. SIAM Journal on Numerical Analysis, 2007, 45, 1035-1044.	1.1	13
24	JADAMILU: a software code for computing selected eigenvalues of large sparse symmetric matrices. Computer Physics Communications, 2007, 177, 951-964.	3.0	90
25	Aggregation-Based Algebraic Multilevel Preconditioning. SIAM Journal on Matrix Analysis and Applications, 2006, 27, 998-1018.	0.7	36
26	Algebraic multigrid and algebraic multilevel methods: a theoretical comparison. Numerical Linear Algebra With Applications, 2005, 12, 419-451.	0.9	33
27	Is Jacobi–Davidson Faster than Davidson?. SIAM Journal on Matrix Analysis and Applications, 2004, 26, 522-543.	0.7	14
28	Convergence Analysis of Inexact Rayleigh Quotient Iteration. SIAM Journal on Matrix Analysis and Applications, 2003, 24, 627-644.	0.7	38
29	Combination of Jacobi-Davidson and conjugate gradients for the partial symmetric eigenproblem. Numerical Linear Algebra With Applications, 2002, 9, 21-44.	0.9	80
30	A robust algebraic multilevel preconditioner for non-symmetricM-matrices. Numerical Linear Algebra With Applications, 2000, 7, 243-267.	0.9	16
31	Dynamically Relaxed Block Incomplete Factorizations for Solving Two- and Three-Dimensional Problems. SIAM Journal of Scientific Computing, 2000, 21, 2008-2028.	1.3	4
32	Optimal Order Preconditioning of Finite Difference Matrices. SIAM Journal of Scientific Computing, 2000, 21, 1991-2007.	1.3	13
33	Flexible Conjugate Gradients. SIAM Journal of Scientific Computing, 2000, 22, 1444-1460.	1.3	150
34	On Algebraic Multilevel Preconditioning. Lecture Notes in Computational Science and Engineering, 2000, , 84-98.	0.1	3
35	A multilevel block incomplete factorization preconditioning. Applied Numerical Mathematics, 1999, 31, 209-225.	1.2	8
36	Problem-dependent preconditioners for iterative solvers in FE elastostatics. Computers and Structures, 1999, 73, 33-43.	2.4	17

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37	Optimal v-cycle algebraic multilevel preconditioning. Numerical Linear Algebra With Applications, 1998, 5, 441-459.	0.9	13
38	Efficient iterative solution of constrained finite element analyses. Computer Methods in Applied Mechanics and Engineering, 1998, 160, 101-114.	3.4	11
39	Optimal vâ€cycle algebraic multilevel preconditioning. Numerical Linear Algebra With Applications, 1998, 5, 441-459.	0.9	2
40	A nearly optimal preconditioning based on recursive red-black orderings. Numerical Linear Algebra With Applications, 1997, 4, 369-391.	0.9	9
41	DRIC: A dynamic version of the RIC method. Numerical Linear Algebra With Applications, 1994, 1, 511-532.	0.9	36
42	Conditioning of Stieltjes matrices by S/P consistently ordered approximate factorizations. Applied Numerical Mathematics, 1992, 10, 381-396.	1.2	7
43	Incomplete factorizations of singular linear systems. BIT Numerical Mathematics, 1989, 29, 682-702.	1.0	18
44	Polynomial acceleration of iterative schemes associated with subproper splittings. Journal of Computational and Applied Mathematics, 1988, 24, 153-167.	1.1	13
45	Rigorous convergence proof of space-time multigrid with coarsening in space. Numerical Algorithms, 0, , 1.	1.1	1