

Zhongxiao Jia

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Refined iterative algorithms based on Arnoldi's process for large unsymmetric eigenproblems. <i>Linear Algebra and Its Applications</i> , 1997, 259, 1-23.	0.9	99
2	An analysis of the Rayleigh-Ritz method for approximating eigenspaces. <i>Mathematics of Computation</i> , 2000, 70, 637-648.	2.1	91
3	The Convergence of Generalized Lanczos Methods for Large Unsymmetric Eigenproblems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1995, 16, 843-862.	1.4	45
4	An Implicitly Restarted Refined Bidiagonalization Lanczos Method for Computing a Partial Singular Value Decomposition. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003, 25, 246-265.	1.4	41
5	The convergence of harmonic Ritz values, harmonic Ritz vectors and refined harmonic Ritz vectors. <i>Mathematics of Computation</i> , 2004, 74, 1441-1457.	2.1	33
6	The refined harmonic Arnoldi method and an implicitly restarted refined algorithm for computing interior eigenpairs of large matrices. <i>Applied Numerical Mathematics</i> , 2002, 42, 489-512.	2.1	32
7	A Refined Harmonic Lanczos Bidiagonalization Method and an Implicitly Restarted Algorithm for Computing the Smallest Singular Triplets of Large Matrices. <i>SIAM Journal of Scientific Computing</i> , 2010, 32, 714-744.	2.8	30
8	A refined subspace iteration algorithm for large sparse eigenproblems. <i>Applied Numerical Mathematics</i> , 2000, 32, 35-52.	2.1	28
9	Some results on condition numbers of the scaled total least squares problem. <i>Linear Algebra and Its Applications</i> , 2011, 435, 674-686.	0.9	25
10	Generalized block Lanczos methods for large unsymmetric eigenproblems. <i>Numerische Mathematik</i> , 1998, 80, 239-266.	1.9	23
11	Composite orthogonal projection methods for large matrix eigenproblems. <i>Science in China Series A: Mathematics</i> , 1989, 42, 577-585.	0.5	18
12	Inner iterations in the shift-invert residual Arnoldi method and the Jacobi-Davidson method. <i>Science China Mathematics</i> , 2014, 57, 1733-1752.	1.7	17
13	A power sparse approximate inverse preconditioning procedure for large sparse linear systems. <i>Numerical Linear Algebra With Applications</i> , 2009, 16, 259-299.	1.6	16
14	On the condition number of the total least squares problem. <i>Numerische Mathematik</i> , 2013, 125, 61-87.	1.9	16
15	Some results on the regularization of LSQR for large-scale discrete ill-posed problems. <i>Science China Mathematics</i> , 2017, 60, 701-718.	1.7	15
16	Using cross-product matrices to compute the SVD. <i>Numerical Algorithms</i> , 2006, 42, 31-61.	1.9	13
17	A positivity preserving inexact Noda iteration for computing the smallest eigenpair of a large irreducible M -matrix. <i>Numerische Mathematik</i> , 2015, 130, 645-679.	1.9	9
18	Residuals of refined projection methods for large matrix eigenproblems. <i>Computers and Mathematics With Applications</i> , 2001, 41, 813-820.	2.7	8

#	ARTICLE	IF	CITATIONS
19	On convergence of the inexact Rayleigh quotient iteration with MINRES. Journal of Computational and Applied Mathematics, 2012, 236, 4276-4295.	2.0	8
20	Harmonic and refined harmonic shift-invert residual Arnoldi and Jacobi–Davidson methods for interior eigenvalue problems. Journal of Computational and Applied Mathematics, 2015, 282, 83-97.	2.0	8
21	A posteriori error estimates of krylov subspace approximations to matrix functions. Numerical Algorithms, 2015, 69, 1-28.	1.9	8
22	A joint bidiagonalization based iterative algorithm for large scale general-form Tikhonov regularization. Applied Numerical Mathematics, 2020, 157, 159-177.	2.1	8
23	Modified truncated randomized singular value decomposition (MTRSVD) algorithms for large scale discrete ill-posed problems with general-form regularization. Inverse Problems, 2018, 34, 055013.	2.0	7
24	Some properties of LSQR for large sparse linear least squares problems. Journal of Systems Science and Complexity, 2010, 23, 815-821.	2.8	6
25	Regularization properties of Krylov iterative solvers CGME and LSMR for linear discrete ill-posed problems with an application to truncated randomized SVDs. Numerical Algorithms, 2020, 85, 1281-1310.	1.9	6
26	On IOM(q): The Incomplete Orthogonalization Method for Large Unsymmetric Linear Systems. Numerical Linear Algebra With Applications, 1996, 3, 491-512.	1.6	5
27	A convergence analysis of the inexact Rayleigh quotient iteration and simplified Jacobi-Davidson method for the large Hermitian matrix eigenproblem. Science in China Series A: Mathematics, 2008, 51, 2205-2216.	0.5	5
28	A residual based sparse approximate inverse preconditioning procedure for large sparse linear systems. Numerical Linear Algebra With Applications, 2017, 24, e2080.	1.6	5
29	Approximation accuracy of the Krylov subspaces for linear discrete ill-posed problems. Journal of Computational and Applied Mathematics, 2020, 374, 112786.	2.0	5
30	On choices of formulations of computing the generalized singular value decomposition of a large matrix pair. Numerical Algorithms, 2021, 87, 689-718.	1.9	5
31	The joint bidiagonalization process with partial reorthogonalization. Numerical Algorithms, 2021, 88, 965-992.	1.9	5
32	On the convergence of Ritz pairs and refined Ritz vectors for quadratic eigenvalue problems. BIT Numerical Mathematics, 2013, 53, 941-958.	2.0	4
33	An Approach to Making SPAI and PSAI Preconditioning Effective for Large Irregular Sparse Linear Systems. SIAM Journal of Scientific Computing, 2013, 35, A1903-A1927.	2.8	4
34	On Inner Iterations of Jacobi–Davidson Type Methods for Large SVD Computations. SIAM Journal of Scientific Computing, 2019, 41, A1574-A1603.	2.8	4
35	The low rank approximations and Ritz values in LSQR for linear discrete ill-posed problem. Inverse Problems, 2020, 36, 045013.	2.0	4
36	On IGMRES: An incomplete generalized minimal residual method for large unsymmetric linear systems. Science in China Series A: Mathematics, 1998, 41, 1278-1288.	0.5	3

#	ARTICLE	IF	CITATIONS
37	On convergence of the inexact Rayleigh quotient iteration with the Lanczos method used for solving linear systems. <i>Science China Mathematics</i> , 2013, 56, 2145-2160.	1.7	3
38	Robust dropping criteria for F-norm minimization based sparse approximate inverse preconditioning. <i>BIT Numerical Mathematics</i> , 2013, 53, 959-985.	2.0	3
39	On regularizing effects of MINRES and MR-II for large scale symmetric discrete ill-posed problems. <i>Journal of Computational and Applied Mathematics</i> , 2017, 320, 145-163.	2.0	3
40	Regularization properties of LSQR for linear discrete ill-posed problems in the multiple singular value case and best, near best and general low rank approximations. <i>Inverse Problems</i> , 2020, 36, 085009.	2.0	3
41	The Convergence of the Generalized Lanczos Trust-Region Method for the Trust-Region Subproblem. <i>SIAM Journal on Optimization</i> , 2021, 31, 887-914.	2.0	3
42	A transformation approach that makes SPAI, PSAI and RSAI procedures efficient for large double irregular nonsymmetric sparse linear systems. <i>Journal of Computational and Applied Mathematics</i> , 2019, 348, 200-213.	2.0	1
43	Theoretical and Computable Optimal Subspace Expansions for Matrix Eigenvalue Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2022, 43, 584-604.	1.4	0