Zhong-Zhi Bai

List of Publications by Year
in descending order

130 papers	8,420 citations	61687 45 h-index	54771 88 g-index
135 all docs	135 docs citations	135 times ranked	739 citing authors

#	Article	IF	Citations
1	The power method and beyond. Applied Numerical Mathematics, 2021, 164, 29-42.	1.2	7
2	On refinement of the generalized Bendixson theorem. Applied Numerical Mathematics, 2021, 164, 125-138.	1.2	0
3	Focused Section on Matrix Computations. Communications on Applied Mathematics and Computation, 2021, 3, 107-107.	0.7	1
4	On convergence rate of the randomized Gauss-Seidel method. Linear Algebra and Its Applications, 2021, 611, 237-252.	0.4	11
5	Optimal rotated block-diagonal preconditioning for discretized optimal control problems constrained with fractional time-dependent diffusive equations. Applied Numerical Mathematics, 2021, 163, 126-146.	1.2	11
6	On Greedy Randomized Augmented Kaczmarz Method for Solving Large Sparse Inconsistent Linear Systems. SIAM Journal of Scientific Computing, 2021, 43, A3892-A3911.	1.3	14
7	On regularized Hermitian splitting iteration methods for solving discretized almostâ€isotropic spatial fractional diffusion equations. Numerical Linear Algebra With Applications, 2020, 27, e2274.	0.9	3
8	Fast matrix splitting preconditioners for higher dimensional spatial fractional diffusion equations. Journal of Computational Physics, 2020, 404, 109117.	1.9	17
9	Regularized HSS iteration methods for stabilized saddle-point problems. IMA Journal of Numerical Analysis, 2019, 39, 1888-1923.	1.5	13
10	Computing eigenpairs of Hermitian matrices in perfect Krylov subspaces. Numerical Algorithms, 2019, 82, 1251-1277.	1.1	5
11	On partially randomized extended Kaczmarz method for solving large sparse overdetermined inconsistent linear systems. Linear Algebra and Its Applications, 2019, 578, 225-250.	0.4	42
12	On greedy randomized coordinate descent methods for solving large linear leastâ€squares problems. Numerical Linear Algebra With Applications, 2019, 26, e2237.	0.9	43
13	On multistep Rayleigh quotient iterations for Hermitian eigenvalue problems. Computers and Mathematics With Applications, 2019, 77, 2396-2406.	1.4	8
14	On banded M-splitting iteration methods for solving discretized spatial fractional diffusion equations. BIT Numerical Mathematics, 2019, 59, 1-33.	1.0	16
15	On Greedy Randomized Kaczmarz Method for Solving Large Sparse Linear Systems. SIAM Journal of Scientific Computing, 2018, 40, A592-A606.	1.3	114
16	Editorial: Novel methods and theories in numerical algebra with interdisciplinary applications. Numerical Linear Algebra With Applications, 2018, 25, e2181.	0.9	0
17	Respectively scaled HSS iteration methods for solving discretized spatial fractional diffusion equations. Numerical Linear Algebra With Applications, 2018, 25, e2157.	0.9	11
18	On relaxed greedy randomized Kaczmarz methods for solving large sparse linear systems. Applied Mathematics Letters, 2018, 83, 21-26.	1.5	68

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19	Quasiâ€HSS iteration methods for nonâ€Hermitian positive definite linear systems of strong skewâ€Hermitian parts. Numerical Linear Algebra With Applications, 2018, 25, e2116.	0.9	11
20	On convergence rate of the randomized Kaczmarz method. Linear Algebra and Its Applications, 2018, 553, 252-269.	0.4	39
21	On spectral clustering of HSS preconditioner for generalized saddle-point matrices. Linear Algebra and Its Applications, 2018, 555, 285-300.	0.4	14
22	On local quadratic convergence of inexact simplified Jacobiâ€"Davidson method. Linear Algebra and Its Applications, 2017, 520, 215-241.	0.4	18
23	Modulusâ€based multigrid methods for linear complementarity problems. Numerical Linear Algebra With Applications, 2017, 24, e2105.	0.9	18
24	On preconditioned and relaxed AVMM methods for quadratic programming problems with equality constraints. Linear Algebra and Its Applications, 2017, 516, 264-285.	0.4	4
25	On local quadratic convergence of inexact simplified Jacobiâ€"Davidson method for interior eigenpairs of Hermitian eigenproblems. Applied Mathematics Letters, 2017, 72, 23-28.	1.5	16
26	Diagonal and Toeplitz splitting iteration methods for diagonal-plus-Toeplitz linear systems from spatial fractional diffusion equations. Numerical Linear Algebra With Applications, 2017, 24, e2093.	0.9	43
27	Modulus-based iterative methods for constrained Tikhonov regularization. Journal of Computational and Applied Mathematics, 2017, 319, 1-13.	1.1	28
28	Regularized HSS iteration methods for saddle-point linear systems. BIT Numerical Mathematics, 2017, 57, 287-311.	1.0	44
29	Editorial Preface: â€œPreconditioning and Iterative Methods for Algebraic Systems and Complementarity Problemsâ€. East Asian Journal on Applied Mathematics, 2017, 7, i-ii.	0.4	0
30	On SSORâ€like preconditioners for nonâ€Hermitian positive definite matrices. Numerical Linear Algebra With Applications, 2016, 23, 37-60.	0.9	30
31	Editorial Preface: â€œAdvances in numerical algebra and scientific computingâ€. BIT Numerical Mathematics, 2016, 56, 395-397.	1.0	0
32	Rigorous convergence analysis of alternating variable minimization with multiplier methods for quadratic programming problems with equality constraints. BIT Numerical Mathematics, 2016, 56, 399-422.	1.0	8
33	Preface to the special issue on â€œPractical methods and rigorous theories in numerical algebra and scientific computingâ€. Journal of Engineering Mathematics, 2015, 93, 1-2.	0.6	0
34	Motivations and realizations of Krylov subspace methods for large sparse linear systems. Journal of Computational and Applied Mathematics, 2015, 283, 71-78.	1.1	102
35	On the Numerical Behavior of Matrix Splitting Iteration Methods for Solving Linear Systems. SIAM Journal on Numerical Analysis, 2015, 53, 1716-1737.	1.1	23
36	On preconditioned iteration methods for complex linear systems. Journal of Engineering Mathematics, 2015, 93, 41-60.	0.6	75

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37	On order-reducible sinc discretizations and block-diagonal preconditioning methods for linear third-order ordinary differential equations. Numerical Linear Algebra With Applications, 2014, 21, 108-135.	0.9	13
38	On approximated ILU and UGS preconditioning methods for linearized discretized steady incompressible Navier-Stokes equations. Numerical Algorithms, 2014, 65, 43-68.	1.1	3
39	Optimization of extrapolated Cayley transform with non-Hermitian positive definite matrix. Linear Algebra and Its Applications, 2014, 463, 322-339.	0.4	32
40	Modulusâ€based synchronous multisplitting iteration methods for linear complementarity problems. Numerical Linear Algebra With Applications, 2013, 20, 425-439.	0.9	123
41	On the Meany inequality with applications to convergence analysis of several row-action iteration methods. Numerische Mathematik, 2013, 124, 215-236.	0.9	29
42	Additive block diagonal preconditioning for block two-by-two linear systems of skew-Hamiltonian coefficient matrices. Numerical Algorithms, 2013, 62, 655-675.	1.1	54
43	Rotated block triangular preconditioning based on PMHSS. Science China Mathematics, 2013, 56, 2523-2538.	0.8	59
44	Block-triangular preconditioning methods for linear third-order ordinary differential equations based on reduced-order sinc discretizations. Japan Journal of Industrial and Applied Mathematics, 2013, 30, 511-527.	0.5	9
45	Modulus-based synchronous two-stage multisplitting iteration methods for linear complementarity problems. Numerical Algorithms, 2013, 62, 59-77.	1.1	116
46	On nonsingularity of block two-by-two matrices. Linear Algebra and Its Applications, 2013, 439, 2388-2404.	0.4	18
47	Eigenvalue estimates for saddle point matrices of Hermitian and indefinite leading blocks. Journal of Computational and Applied Mathematics, 2013, 237, 295-306.	1.1	53
48	Preconditioned MHSS iteration methods for a class of block two-by-two linear systems with applications to distributed control problems. IMA Journal of Numerical Analysis, 2013, 33, 343-369.	1.5	173
49	Innovative methods and theories in numerical algebra. Numerical Linear Algebra With Applications, 2012, 19, 893-895.	0.9	0
50	Block alternating splitting implicit iteration methods for saddleâ€point problems from timeâ€harmonic eddy current models. Numerical Linear Algebra With Applications, 2012, 19, 914-936.	0.9	53
51	Continuous-time accelerated block successive overrelaxation methods for time-dependent Stokes equations. Journal of Computational and Applied Mathematics, 2012, 236, 3265-3285.	1.1	1
52	On preconditioned MHSS iteration methods for complex symmetric linear systems. Numerical Algorithms, 2011, 56, 297-317.	1.1	203
53	Block preconditioners for elliptic PDE-constrained optimization problems. Computing (Vienna/New) Tj ETQq1 1 0.784314 rgBT /Overl	3.2	77
54	On inexact Newton methods based on doubling iteration scheme for non-symmetric algebraic Riccati equations. Numerical Linear Algebra With Applications, 2011, 18, 325-341.	0.9	25

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55	On sinc discretization and banded preconditioning for linear third-order ordinary differential equations. Numerical Linear Algebra With Applications, 2011, 18, 471-497.	0.9	16
56	On convergence conditions of waveform relaxation methods for linear differential-algebraic equations. Journal of Computational and Applied Mathematics, 2011, 235, 2790-2804.	1.1	12
57	Modified HSS iteration methods for a class of complex symmetric linear systems. Computing (Vienna/New York), 2010, 87, 93-111.	3.2	265
58	On semi-convergence of Hermitian and skew-Hermitian splitting methods for singular linear systems. Computing (Vienna/New York), 2010, 89, 171-197.	3.2	108
59	Modulus-based matrix splitting iteration methods for linear complementarity problems. Numerical Linear Algebra With Applications, 2010, 17, 917-933.	0.9	274
60	Optimal parameters in the HSS–like methods for saddle–point problems. Numerical Linear Algebra With Applications, 2009, 16, 447-479.	0.9	193
61	Modified incomplete orthogonal factorization methods using Givens rotations. Computing (Vienna/New York), 2009, 86, 53-69.	3.2	12
62	On HSS-based iteration methods for weakly nonlinear systems. Applied Numerical Mathematics, 2009, 59, 2923-2936.	1.2	69
63	On semi-convergence of parameterized Uzawa methods for singular saddle point problems. Linear Algebra and Its Applications, 2009, 431, 808-817.	0.4	110
64	Numerical study on incomplete orthogonal factorization preconditioners. Journal of Computational and Applied Mathematics, 2009, 226, 22-41.	1.1	16
65	Product-type skew-Hermitian triangular splitting iteration methods for strongly non-Hermitian positive definite linear systems. Journal of Computational and Applied Mathematics, 2009, 232, 3-16.	1.1	29
66	On Preconditioned Iterative Methods for Certain Time-Dependent Partial Differential Equations. SIAM Journal on Numerical Analysis, 2009, 47, 1019-1037.	1.1	23
67	Constraint Preconditioners for Symmetric Indefinite Matrices. SIAM Journal on Matrix Analysis and Applications, 2009, 31, 410-433.	0.7	140
68	Several splittings for non-Hermitian linear systems. Science in China Series A: Mathematics, 2008, 51, 1339-1348.	0.5	47
69	On inexact hermitian and skew-Hermitian splitting methods for non-Hermitian positive definite linear systems. Linear Algebra and Its Applications, 2008, 428, 413-440.	0.4	158
70	Convergence conditions for splitting iteration methods for non-Hermitian linear systems. Linear Algebra and Its Applications, 2008, 428, 453-468.	0.4	24
71	On parameterized inexact Uzawa methods for generalized saddle point problems. Linear Algebra and Its Applications, 2008, 428, 2900-2932.	0.4	245
72	Fast Iterative Schemes for Nonsymmetric Algebraic Riccati Equations Arising from Transport Theory. SIAM Journal of Scientific Computing, 2008, 30, 804-818.	1.3	34

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73	Splitting iteration methods for non-Hermitian positive definite systems of linear equations. Hokkaido Mathematical Journal, 2007, 36, 801.	0.2	44
74	Convergence properties of preconditioned Hermitian and skew-Hermitian splitting methods for non-Hermitian positive semidefinite matrices. Mathematics of Computation, 2007, 76, 287-299.	1.1	162
75	Accelerated Hermitian and skew-Hermitian splitting iteration methods for saddle-point problems. IMA Journal of Numerical Analysis, 2007, 27, 1-23.	1.5	335
76	On successive-overrelaxation acceleration of the Hermitian and skew-Hermitian splitting iterations. Numerical Linear Algebra With Applications, 2007, 14, 319-335.	0.9	149
77	A globally convergent Newton-GMRES method for large sparse systems of nonlinear equations. Applied Numerical Mathematics, 2007, 57, 235-252.	1.2	69
78	Optimal Parameter in Hermitian and Skew-Hermitian Splitting Method for Certain Two-by-Two Block Matrices. SIAM Journal of Scientific Computing, 2006, 28, 583-603.	1.3	147
79	Restrictive preconditioners for conjugate gradient methods for symmetric positive definite linear systems. Journal of Computational and Applied Mathematics, 2006, 187, 202-226.	1.1	73
80	New preconditioners for saddle point problems. Applied Mathematics and Computation, 2006, 172, 762-771.	1.4	130
81	Convergence analysis of two-stage waveform relaxation method for the initial value problems. Applied Mathematics and Computation, 2006, 172, 797-808.	1.4	15
82	A modified damped Newton method for linear complementarity problems. Numerical Algorithms, 2006, 42, 207-228.	1.1	18
83	Iterative orthogonal direction methods for Hermitian minimum norm solutions of two consistent matrix equations. Numerical Linear Algebra With Applications, 2006, 13, 801-823.	0.9	75
84	Alternately linearized implicit iteration methods for the minimal nonnegative solutions of the nonsymmetric algebraic Riccati equations. Numerical Linear Algebra With Applications, 2006, 13, 655-674.	0.9	65
85	Alternating splitting waveform relaxation method and its successive overrelaxation acceleration. Computers and Mathematics With Applications, 2005, 49, 157-170.	1.4	10
86	Two-step waveform relaxation methods for implicit linear initial value problems. Numerical Linear Algebra With Applications, 2005, 12, 293-304.	0.9	15
87	On generalized successive overrelaxation methods for augmented linear systems. Numerische Mathematik, 2005, 102, 1-38.	0.9	326
88	Structured preconditioners for nonsingular matrices of block two-by-two structures. Mathematics of Computation, 2005, 75, 791-816.	1.1	225
89	On Inexact Preconditioners for Nonsymmetric Matrices. SIAM Journal of Scientific Computing, 2005, 26, 1710-1724.	1.3	97
90	Block Triangular and Skew-Hermitian Splitting Methods for Positive-Definite Linear Systems. SIAM Journal of Scientific Computing, 2005, 26, 844-863.	1.3	271

#	ARTICLE	IF	CITATIONS
91	Skew-Hermitian Triangular Splitting Iteration Methods for Non-Hermitian Positive Definite Linear Systems of Strong Skew-Hermitian Parts. BIT Numerical Mathematics, 2004, 44, 363-386.	1.0	40
92	A Class of Nested Iteration Schemes for Linear Systems with a Coefficient Matrix with a Dominant Positive Definite Symmetric Part. Numerical Algorithms, 2004, 35, 351-372.	1.1	71
93	Preconditioned Hermitian and skew-Hermitian splitting methods for non-Hermitian positive semidefinite linear systems. Numerische Mathematik, 2004, 98, 1-32.	0.9	435
94	Construction and analysis of structured preconditioners for block two-by-two matrices. Journal of Shanghai University, 2004, 8, 397-405.	0.1	15
95	Preconditioners for nonsymmetric block toeplitz-like-plus-diagonal linear systems. Numerische Mathematik, 2003, 96, 197-220.	0.9	45
96	A hybrid preconditioner of banded matrix approximation and alternating direction implicit iteration for symmetric Sincâ€"Galerkin linear systems. Linear Algebra and Its Applications, 2003, 366, 317-335.	0.4	13
97	Convergence theorems for parallel multisplitting two-stage iterative methods for mildly nonlinear systems. Linear Algebra and Its Applications, 2003, 362, 237-250.	0.4	11
98	On the convergence of additive and multiplicative splitting iterations for systems of linear equations. Journal of Computational and Applied Mathematics, 2003, 154, 195-214.	1.1	46
99	On the convergence of parallel nonstationary multisplitting iteration methods. Journal of Computational and Applied Mathematics, 2003, 159, 1-11.	1.1	12
100	Weak-convergence theory of quasi-nonnegative splittings for singular matrices. Applied Numerical Mathematics, 2003, 47, 75-89.	1.2	19
101	Hermitian and Skew-Hermitian Splitting Methods for Non-Hermitian Positive Definite Linear Systems. SIAM Journal on Matrix Analysis and Applications, 2003, 24, 603-626.	0.7	832
102	Matrix Multisplitting Methods with Applications to Linear Complementarity Problemsâ¶ Parallel Asynchronous Methods. International Journal of Computer Mathematics, 2002, 79, 205-232.	1.0	85
103	On the convergence of nonstationary multisplitting two-stage iteration methods for hermitian positive definite linear systems. Journal of Computational and Applied Mathematics, 2002, 138, 287-296.	1.1	19
104	Sufficient conditions for the convergent splittings of non-Hermitian positive definite matrices. Linear Algebra and Its Applications, 2001, 330, 215-218.	0.4	49
105	A Class of Incomplete Orthogonal Factorization Methods. I: Methods and Theories. BIT Numerical Mathematics, 2001, 41, 53-70.	1.0	43
106	Modified Block SSOR Preconditioners for Symmetric Positive Definite Linear Systems. Annals of Operations Research, 2001, 103, 263-282.	2.6	37
107	Sharp error bounds of some Krylov subspace methods for non-Hermitian linear systems. Applied Mathematics and Computation, 2000, 109, 273-285.	1.4	65
108	Asynchronous multisplitting relaxation methods for linear complementarity problems. International Journal of Computer Mathematics, 1999, 70, 519-538.	1.0	8

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109	A class of parallel hybrid two-stage iteration methods for block bordered linear systems. Applied Mathematics and Computation, 1999, 101, 245-267.	1.4	3
110	A class of asynchronous multisplitting two-stage iterations for large sparse block systems of weakly nonlinear equations. Journal of Computational and Applied Mathematics, 1999, 110, 271-286.	1.1	2
111	A class of asynchronous parallel multisplitting blockwise relaxation methods. Parallel Computing, 1999, 25, 681-701.	1.3	7
112	Some properties of the block matrices in the parallel decomposition-type relaxation methods. Applied Numerical Mathematics, 1999, 29, 167-170.	1.2	4
113	Block and asynchronous two-stage methods for mildly nonlinear systems. Numerische Mathematik, 1999, 82, 1-20.	0.9	31
114	Convergence analysis of the two-stageÂ¶multisplitting method. Calcolo, 1999, 36, 63-74.	0.6	11
115	On the Convergence of the Multisplitting Methods for the Linear Complementarity Problem. SIAM Journal on Matrix Analysis and Applications, 1999, 21, 67-78.	0.7	170
116	Asynchronous parallel nonlinear multisplitting relaxation methods for large sparse nonlinear complementarity problems. Applied Mathematics and Computation, 1998, 92, 85-100.	1.4	8
117	Asynchronous multisplitting two-stage iterations for systems of weakly nonlinear equations. Journal of Computational and Applied Mathematics, 1998, 93, 13-33.	1.1	8
118	Chaotic iterative methods for the linear complementarity problems. Journal of Computational and Applied Mathematics, 1998, 96, 127-138.	1.1	24
119	A class of asynchronous parallel nonlinear accelerated overrelaxation methods for the nonlinear complementarity problems. Journal of Computational and Applied Mathematics, 1998, 93, 35-44.	1.1	12
120	The convergence of the two-stage iterative method for Hermitian positive definite linear systems. Applied Mathematics Letters, 1998, 11, 1-5.	1.5	21
121	Blockwise matrix multi-splitting multi-parameter block relaxation methods*. International Journal of Computer Mathematics, 1997, 64, 103-118.	1.0	12
122	A CLASS OF MULTI-PARAMETER RELAXED PARALLEL MULTISPLITTING METHODS FOR LARGE SPARSE LINEAR COMPLEMENTARITY PROBLEMS. International Journal of Parallel, Emergent and Distributed Systems, 1997, 11, 113-127.	0.4	6
123	Matrix multisplitting relaxation methods for linear complementarity problems. International Journal of Computer Mathematics, 1997, 63, 309-326.	1.0	106
124	Title is missing!. Numerical Algorithms, 1997, 15, 347-372.	1.1	28
125	On the convergence of parallel chaotic nonlinear multisplitting Newton-type methods. Journal of Computational and Applied Mathematics, 1997, 80, 317-334.	1.1	14
126	The monotone convergence of the two-stage iterative method for solving large sparse systems of linear equations. Applied Mathematics Letters, 1997, 10, 113-117.	1.5	22

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127	A class of parallel nonlinear multisplitting relaxation methods for the large sparse nonlinear complementarity problems. Computers and Mathematics With Applications, 1996, 32, 79-95.	1.4	16
128	The convergence of parallel iteration algorithms for linear complementarity problems. Computers and Mathematics With Applications, 1996, 32, 1-17.	1.4	55
129	A unified framework for the construction of various matrix multisplitting iterative methods for large sparse system of linear equations. Computers and Mathematics With Applications, 1996, 32, 51-76.	1.4	101
130	On the comparisons of the multisplitting unsymmetric aor methods for M-matrices. Calcolo, 1995, 32, 207-220.	0.6	4