

# Ren-Cang Li

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79  
papers

992  
citations

16  
h-index

27  
g-index

80  
ext. papers

1,119  
ext. citations

1.9  
avg, IF

4.81  
L-index

#	Paper	IF	Citations
79	Sharp Estimation of Convergence Rate for Self-Consistent Field Iteration to Solve Eigenvector-Dependent Nonlinear Eigenvalue Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2022</b> , 43, 301-327	1.5	0
78	A self-consistent-field iteration for MAXBET with an application to multi-view feature extraction. <i>Advances in Computational Mathematics</i> , <b>2022</b> , 48, 1	1.6	0
77	Probabilistic Structure Learning for EEG/MEG Source Imaging With Hierarchical Graph Priors. <i>IEEE Transactions on Medical Imaging</i> , <b>2021</b> , 40, 321-334	11.7	7
76	On an eigenvector-dependent nonlinear eigenvalue problem from the perspective of relative perturbation theory. <i>Journal of Computational and Applied Mathematics</i> , <b>2021</b> , 395, 113596	2.4	
75	Accurate numerical solution for structured M-matrix algebraic Riccati equations. <i>Journal of Computational and Applied Mathematics</i> , <b>2021</b> , 396, 113614	2.4	2
74	Accurate Numerical Solution for Shifted M-Matrix Algebraic Riccati Equations. <i>Journal of Scientific Computing</i> , <b>2020</b> , 84, 1	2.3	2
73	Orthogonal canonical correlation analysis and applications. <i>Optimization Methods and Software</i> , <b>2020</b> , 35, 787-807	1.3	8
72	Perturbation theory for Hermitian quadratic eigenvalue problem $\mathbb{H}$ -damped and simultaneously diagonalizable systems. <i>Applied Mathematics and Computation</i> , <b>2020</b> , 371, 124921	2.7	1
71	. <i>IEEE Transactions on Big Data</i> , <b>2020</b> , 1-1	3.2	1
70	A Self-consistent-field Iteration for Orthogonal CCA. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2020</b> , PP,	13.3	4
69	An Efficient Numerical Method for the Symmetric Positive Definite Second-Order Cone Linear Complementarity Problem. <i>Journal of Scientific Computing</i> , <b>2019</b> , 79, 1608-1629	2.3	4
68	Perturbation analysis for matrix joint block diagonalization. <i>Linear Algebra and Its Applications</i> , <b>2019</b> , 581, 163-197	0.9	
67	Highly accurate doubling algorithm for quadratic matrix equation from quasi-birth-and-death process. <i>Linear Algebra and Its Applications</i> , <b>2019</b> , 583, 1-45	0.9	5
66	Structure-Preserving Doubling Algorithms for Nonlinear Matrix Equations <b>2018</b> ,		6
65	Structured backward error for palindromic polynomial eigenvalue problems, II: Approximate eigentriplets. <i>Frontiers of Mathematics in China</i> , <b>2018</b> , 13, 1397-1426	0.8	
64	On an Eigenvector-Dependent Nonlinear Eigenvalue Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2018</b> , 39, 1360-1382	1.5	23
63	Highly accurate doubling algorithms for M-matrix algebraic Riccati equations. <i>Numerische Mathematik</i> , <b>2017</b> , 135, 733-767	2.2	8

62	A symmetric structure-preserving QR algorithm for linear response eigenvalue problems. <i>Linear Algebra and Its Applications</i> , <b>2017</b> , 520, 191-214	0.9	5
61	On the Generalized Lanczos Trust-Region Method. <i>SIAM Journal on Optimization</i> , <b>2017</b> , 27, 2110-2142	2	12
60	Error bounds for approximate deflating subspaces for linear response eigenvalue problems. <i>Linear Algebra and Its Applications</i> , <b>2017</b> , 528, 273-289	0.9	2
59	Recent Progress in Linear Response Eigenvalue Problems. <i>Lecture Notes in Computational Science and Engineering</i> , <b>2017</b> , 287-304	0.3	
58	A block Chebyshev-Davidson method for linear response eigenvalue problems. <i>Advances in Computational Mathematics</i> , <b>2016</b> , 42, 1103-1128	1.6	7
57	A Fast Algorithm For Fast Train Palindromic Quadratic Eigenvalue Problems. <i>SIAM Journal of Scientific Computing</i> , <b>2016</b> , 38, A3410-A3429	2.6	3
56	Locally optimal and heavy ball GMRES methods. <i>Japan Journal of Industrial and Applied Mathematics</i> , <b>2016</b> , 33, 471-499	0.6	4
55	Self-Corrective Iterations (SCI) for generalized diagonally dominant matrices. <i>Journal of Computational and Applied Mathematics</i> , <b>2016</b> , 302, 285-300	2.4	2
54	A Nonlinear QR Algorithm for Banded Nonlinear Eigenvalue Problems. <i>ACM Transactions on Mathematical Software</i> , <b>2016</b> , 43, 1-19	2.3	3
53	A new two-phase structure-preserving doubling algorithm for critically singular M-matrix algebraic Riccati equations. <i>Numerical Linear Algebra With Applications</i> , <b>2016</b> , 23, 291-313	1.6	4
52	Convergence of the block Lanczos method for eigenvalue clusters. <i>Numerische Mathematik</i> , <b>2015</b> , 131, 83-113	2.2	23
51	Cluster-robust accuracy bounds for Ritz subspaces. <i>Linear Algebra and Its Applications</i> , <b>2015</b> , 480, 11-26	0.9	6
50	A new look at the doubling algorithm for a structured palindromic quadratic eigenvalue problem. <i>Numerical Linear Algebra With Applications</i> , <b>2015</b> , 22, 393-409	1.6	5
49	Monotonicity of unitarily invariant norms. <i>Linear Algebra and Its Applications</i> , <b>2015</b> , 466, 254-266	0.9	3
48	THE HYPERBOLIC QUADRATIC EIGENVALUE PROBLEM. <i>Forum of Mathematics, Sigma</i> , <b>2015</b> , 3,	1.4	4
47	A Krylov Subspace Method for Large-Scale Second-Order Cone Linear Complementarity Problem. <i>SIAM Journal of Scientific Computing</i> , <b>2015</b> , 37, A2046-A2075	2.6	8
46	Backward perturbation analysis and residual-based error bounds for the linear response eigenvalue problem. <i>BIT Numerical Mathematics</i> , <b>2015</b> , 55, 869-896	1.7	6
45	Rayleigh Quotient Based Optimization Methods for Eigenvalue Problems. <i>Series in Contemporary Applied Mathematics</i> , <b>2015</b> , 76-108	0	12

44	Minimization principles and computation for the generalized linear response eigenvalue problem. <i>BIT Numerical Mathematics</i> , <b>2014</b> , 54, 31-54	1.7	11
43	Extensions of Wielandt's minmax principles for positive semi-definite pencils. <i>Linear and Multilinear Algebra</i> , <b>2014</b> , 62, 1032-1048	0.7	5
42	Rayleigh--Ritz Approximation For the Linear Response Eigenvalue Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2014</b> , 35, 765-782	1.5	7
41	Simultaneous Similarity Reductions for a Pair of Matrices to Condensed Forms. <i>Communications in Mathematics and Statistics</i> , <b>2014</b> , 2, 139-153	0.5	3
40	Convergence analysis of Lanczos-type methods for the linear response eigenvalue problem. <i>Journal of Computational and Applied Mathematics</i> , <b>2013</b> , 247, 17-33	2.4	14
39	Trace minimization principles for positive semi-definite pencils. <i>Linear Algebra and Its Applications</i> , <b>2013</b> , 438, 3085-3106	0.9	13
38	Minimization Principles for the Linear Response Eigenvalue Problem II: Computation. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2013</b> , 34, 392-416	1.5	34
37	Deflating irreducible singular M-matrix algebraic Riccati equations. <i>Numerical Algebra, Control and Optimization</i> , <b>2013</b> , 3, 491-518	1.7	1
36	Perturbation of multiple eigenvalues of Hermitian matrices. <i>Linear Algebra and Its Applications</i> , <b>2012</b> , 437, 202-213	0.9	3
35	Alternating-directional Doubling Algorithm for M-Matrix Algebraic Riccati Equations. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2012</b> , 33, 170-194	1.5	34
34	Minimization Principles for the Linear Response Eigenvalue Problem I: Theory. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2012</b> , 33, 1075-1100	1.5	37
33	Accurate solutions of M-matrix Sylvester equations. <i>Numerische Mathematik</i> , <b>2012</b> , 120, 639-670	2.2	14
32	Accurate solutions of M-matrix algebraic Riccati equations. <i>Numerische Mathematik</i> , <b>2012</b> , 120, 671-700	2.2	26
31	A block variational procedure for the iterative diagonalization of non-Hermitian random-phase approximation matrices. <i>Journal of Chemical Physics</i> , <b>2012</b> , 136, 034111	3.9	14
30	Perturbation of Partitioned Hermitian Definite Generalized Eigenvalue Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2011</b> , 32, 642-663	1.5	15
29	Stable solutions of linear systems involving long chain of matrix multiplications. <i>Linear Algebra and Its Applications</i> , <b>2011</b> , 435, 659-673	0.9	10
28	Bounding the spectrum of large Hermitian matrices. <i>Linear Algebra and Its Applications</i> , <b>2011</b> , 435, 480-493	0.9	23
27	Sharpness in rates of convergence for the symmetric Lanczos method. <i>Mathematics of Computation</i> , <b>2010</b> , 79, 419-419	1.6	8

26	Structured backward error for palindromic polynomial eigenvalue problems. <i>Numerische Mathematik</i> , <b>2010</b> , 116, 95-122	2.2	9
25	Analysis of the solution of the Sylvester equation using low-rank ADI with exact shifts. <i>Systems and Control Letters</i> , <b>2010</b> , 59, 248-257	2.4	8
24	The rate of convergence of GMRES on a tridiagonal Toeplitz linear system. <i>Numerische Mathematik</i> , <b>2009</b> , 112, 267-293	2.2	6
23	The rate of convergence of GMRES on a tridiagonal toeplitz linear system. II. <i>Linear Algebra and Its Applications</i> , <b>2009</b> , 431, 2425-2436	0.9	4
22	On the ADI method for Sylvester equations. <i>Journal of Computational and Applied Mathematics</i> , <b>2009</b> , 233, 1035-1045	2.4	94
21	Vandermonde matrices with Chebyshev nodes. <i>Linear Algebra and Its Applications</i> , <b>2008</b> , 428, 1803-1832	0.9	6
20	On Meinardus' examples for the conjugate gradient method. <i>Mathematics of Computation</i> , <b>2008</b> , 77, 335-352	1.6	10
19	Convergence of CG and GMRES on a tridiagonal Toeplitz linear system. <i>BIT Numerical Mathematics</i> , <b>2007</b> , 47, 577-599	1.7	5
18	Analysis of an alignment algorithm for nonlinear dimensionality reduction. <i>BIT Numerical Mathematics</i> , <b>2007</b> , 47, 873-885	1.7	7
17	Krylov type subspace methods for matrix polynomials. <i>Linear Algebra and Its Applications</i> , <b>2006</b> , 415, 52-81	0.9	14
16	A note on eigenvalues of perturbed Hermitian matrices. <i>Linear Algebra and Its Applications</i> , <b>2005</b> , 395, 183-190	0.9	37
15	Structure-Preserving Model Reduction Using a Krylov Subspace Projection Formulation. <i>Communications in Mathematical Sciences</i> , <b>2005</b> , 3, 179-199	1	28
14	Accuracy of Computed Eigenvectors Via Optimizing a Rayleigh Quotient. <i>BIT Numerical Mathematics</i> , <b>2004</b> , 44, 585-593	1.7	9
13	Pinchings and Norms of Scaled Triangular Matrices. <i>Linear and Multilinear Algebra</i> , <b>2002</b> , 50, 15-21	0.7	7
12	On perturbations of matrix pencils with real spectra, {a revisit}. <i>Mathematics of Computation</i> , <b>2002</b> , 72, 715-729	1.6	18
11	Eigenvalues of symmetrizable matrices. <i>BIT Numerical Mathematics</i> , <b>1998</b> , 38, 1-11	1.7	3
10	Relative Perturbation Theory: II. Eigenspace and Singular Subspace Variations. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1998</b> , 20, 471-492	1.5	81
9	Relative Perturbation Theory: I. Eigenvalue and Singular Value Variations. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1998</b> , 19, 956-982	1.5	71

8	On perturbations of matrix pencils with real spectra. II. <i>Mathematics of Computation</i> , <b>1996</b> , 65, 637-646	1.6	12
7	A sharp version of Kahan's theorem on clustered eigenvalues. <i>Linear Algebra and Its Applications</i> , <b>1996</b> , 245, 147-155	0.9	15
6	New Perturbation Bounds for the Unitary Polar Factor. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1995</b> , 16, 327-332	1.5	41
5	Norms of certain matrices with applications to variations of the spectra of matrices and matrix pencils. <i>Linear Algebra and Its Applications</i> , <b>1993</b> , 182, 199-234	0.9	18
4	A perturbation bound for definite pencils. <i>Linear Algebra and Its Applications</i> , <b>1993</b> , 179, 191-202	0.9	13
3	Solving Secular Equations Stably and Efficiently <b>1993</b> ,		19
2	On the variation of the spectra of matrix pencils. <i>Linear Algebra and Its Applications</i> , <b>1990</b> , 139, 147-164	0.9	5
1	A least squares approach for saddle point problems. <i>Japan Journal of Industrial and Applied Mathematics</i> , <sup>1</sup>	0.6	