

Moody T Chu

List of Publications by Citations

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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.

96 papers	2,225 citations	25 h-index	44 g-index
98 ext. papers	2,523 ext. citations	2.4 avg, IF	5.18 L-index

#	Paper	IF	Citations
96	Structured inverse eigenvalue problems. <i>Acta Numerica</i> , 2002 , 11, 1-71	15.1	245
95	Inverse Eigenvalue Problems. <i>SIAM Review</i> , 1998 , 40, 1-39	7.4	217
94	Inverse Eigenvalue Problems 2005 ,		113
93	Structured low rank approximation. <i>Linear Algebra and Its Applications</i> , 2003 , 366, 157-172	0.9	97
92	The Projected Gradient Method for Least Squares Matrix Approximations with Spectral Constraints. <i>SIAM Journal on Numerical Analysis</i> , 1990 , 27, 1050-1060	2.4	94
91	A Rank-One Reduction Formula and Its Applications to Matrix Factorizations. <i>SIAM Review</i> , 1995 , 37, 512-530	7.4	66
90	Parallel Solution of ODEs by Multiblock Methods. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1987 , 8, 342-353		63
89	On the Continuous Realization of Iterative Processes. <i>SIAM Review</i> , 1988 , 30, 375-387	7.4	61
88	On the Global Convergence of the Alternating Least Squares Method for Rank-One Approximation to Generic Tensors. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2014 , 35, 1058-1072	1.5	57
87	The Generalized Toda Flow, the QR Algorithm and the Center Manifold Theory. <i>SIAM Journal on Algebraic and Discrete Methods</i> , 1984 , 5, 187-201		54
86	On a Multivariate Eigenvalue Problem, Part I: Algebraic Theory and a Power Method. <i>SIAM Journal of Scientific Computing</i> , 1993 , 14, 1089-1106	2.6	53
85	Linear algebra algorithms as dynamical systems. <i>Acta Numerica</i> , 2008 , 17, 1-86	15.1	52
84	Spillover Phenomenon in Quadratic Model Updating. <i>AIAA Journal</i> , 2008 , 46, 420-428	2.1	42
83	Numerical Methods for Inverse Singular Value Problems. <i>SIAM Journal on Numerical Analysis</i> , 1992 , 29, 885-903	2.4	40
82	On Inverse Quadratic Eigenvalue Problems with Partially Prescribed Eigenstructure. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2004 , 25, 995-1020	1.5	37
81	Quadratic Model Updating with Symmetry, Positive Definiteness, and No Spill-Over. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2009 , 31, 546-564	1.5	36
80	A continuous Jacobi-like approach to the simultaneous reduction of real matrices. <i>Linear Algebra and Its Applications</i> , 1991 , 147, 75-96	0.9	34

79	Updating quadratic models with no spillover effect on unmeasured spectral data. <i>Inverse Problems</i> , 2007 , 23, 243-256	2.3	31
78	A simple application of the homotopy method to symmetric eigenvalue problems. <i>Linear Algebra and Its Applications</i> , 1984 , 59, 85-90	0.9	31
77	The Orthogonally Constrained Regression Revisited. <i>Journal of Computational and Graphical Statistics</i> , 2001 , 10, 746-771	1.4	30
76	Constructing a Hermitian Matrix from Its Diagonal Entries and Eigenvalues. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1995 , 16, 207-217	1.5	30
75	Isospectral Flows and Abstract Matrix Factorizations. <i>SIAM Journal on Numerical Analysis</i> , 1988 , 25, 1383-1391	2.1	29
74	Spectral decomposition of real symmetric quadratic λ -matrices and its applications. <i>Mathematics of Computation</i> , 2009 , 78, 293-293	1.6	28
73	Orthogonal Low Rank Tensor Approximation: Alternating Least Squares Method and Its Global Convergence. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2015 , 36, 1-19	1.5	26
72	Constructing Symmetric Nonnegative Matrices with Prescribed Eigenvalues by Differential Equations. <i>SIAM Journal on Mathematical Analysis</i> , 1991 , 22, 1372-1387	1.7	26
71	On the optimal consistent approximation to pairwise comparison matrices. <i>Linear Algebra and Its Applications</i> , 1998 , 272, 155-168	0.9	24
70	Least Squares Approximation by Real Normal Matrices with Specified Spectrum. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1991 , 12, 115-127	1.5	24
69	Total decoupling of general quadratic pencils, Part I: Theory. <i>Journal of Sound and Vibration</i> , 2008 , 309, 96-111	3.9	22
68	A differential equation approach to the singular value decomposition of bidiagonal matrices. <i>Linear Algebra and Its Applications</i> , 1986 , 80, 71-79	0.9	22
67	Homotopy Method for General λ -Matrix Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1988 , 9, 528-536	1.5	21
66	On a Variational Formulation of the Generalized Singular Value Decomposition. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1997 , 18, 1082-1092	1.5	20
65	A Numerical Method for the Inverse Stochastic Spectrum Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1998 , 19, 1027-1039	1.5	20
64	Projected Pseudotransient Continuation. <i>SIAM Journal on Numerical Analysis</i> , 2008 , 46, 3071-3083	2.4	20
63	The Centroid Decomposition: Relationships between Discrete Variational Decompositions and SVDs. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2002 , 23, 1025-1044	1.5	19
62	On the Least Squares Solution of Inverse Eigenvalue Problems. <i>SIAM Journal on Numerical Analysis</i> , 1996 , 33, 2417-2430	2.4	19

61	Matrix differential equations: a continuous realization process for linear algebra problems. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 1992 , 18, 1125-1146	1.3	19
60	SEMI-DEFINITE PROGRAMMING TECHNIQUES FOR STRUCTURED QUADRATIC INVERSE EIGENVALUE PROBLEMS. <i>Numerical Algorithms</i> , 2010 , 53, 419-437	2.1	18
59	On a differential equation approach to the weighted orthogonal Procrustes problem. <i>Statistics and Computing</i> , 1998 , 8, 125-133	1.8	18
58	Low-Dimensional Polytope Approximation and Its Applications to Nonnegative Matrix Factorization. <i>SIAM Journal of Scientific Computing</i> , 2008 , 30, 1131-1155	2.6	17
57	Structured Quadratic Inverse Eigenvalue Problem, I. Serially Linked Systems. <i>SIAM Journal of Scientific Computing</i> , 2007 , 29, 2668-2685	2.6	16
56	Total decoupling of general quadratic pencils, Part II: Structure preserving isospectral flows. <i>Journal of Sound and Vibration</i> , 2008 , 309, 112-128	3.9	14
55	On the Global Convergence of the Toda Lattice for Real Normal Matrices and Its Applications to the Eigenvalue Problem. <i>SIAM Journal on Mathematical Analysis</i> , 1984 , 15, 98-104	1.7	14
54	Markov chains with memory, tensor formulation, and the dynamics of power iteration. <i>Applied Mathematics and Computation</i> , 2017 , 303, 226-239	2.7	13
53	SVD-Based Algorithms for the Best Rank-1 Approximation of a Symmetric Tensor. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2018 , 39, 1095-1115	1.5	12
52	Convergence analysis of an SVD-based algorithm for the best rank-1 tensor approximation. <i>Linear Algebra and Its Applications</i> , 2018 , 555, 53-69	0.9	12
51	Gradient flow methods for matrix completion with prescribed eigenvalues. <i>Linear Algebra and Its Applications</i> , 2004 , 379, 85-112	0.9	12
50	A Fast Recursive Algorithm for Constructing Matrices with Prescribed Eigenvalues and Singular Values. <i>SIAM Journal on Numerical Analysis</i> , 2000 , 37, 1004-1020	2.4	12
49	Solving Additive Inverse Eigenvalue Problems for Symmetric Matrices by the Homotopy Method. <i>IMA Journal of Numerical Analysis</i> , 1990 , 10, 331-342	1.8	12
48	A continuous approximation to the generalized Schur decomposition. <i>Linear Algebra and Its Applications</i> , 1986 , 78, 119-132	0.9	12
47	A note on the homotopy method for linear algebraic eigenvalue problems. <i>Linear Algebra and Its Applications</i> , 1988 , 105, 225-236	0.9	12
46	On the Nonnegative Rank of Euclidean Distance Matrices. <i>Linear Algebra and Its Applications</i> , 2010 , 433, 681-689	0.9	11
45	On the inverse problem of constructing symmetric pentadiagonal Toeplitz matrices from their three largest eigenvalues. <i>Inverse Problems</i> , 2005 , 21, 1879-1894	2.3	11
44	Attaining the Optimal Gaussian Diffusion Acceleration. <i>Journal of Statistical Physics</i> , 2014 , 155, 571-590	1.5	10

43	On the Low-Rank Approximation of Data on the Unit Sphere. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2005 , 27, 46-60	1.5	10
42	Real-Valued, Low Rank, Circulant Approximation. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2003 , 24, 645-659	1.5	10
41	Low rank update of singular values. <i>Mathematics of Computation</i> , 2006 , 75, 1351-1367	1.6	10
40	On the semigroup of standard symplectic matrices and its applications. <i>Linear Algebra and Its Applications</i> , 2004 , 389, 215-225	0.9	9
39	Parameter Reconstruction of Vibration Systems from Partial Eigeninformation. <i>Journal of Sound and Vibration</i> , 2009 , 327, 391-401	3.9	8
38	Orthomax Rotation Problem. A Differential Equation Approach. <i>Behaviormetrika</i> , 1998 , 25, 13-23	1.3	8
37	Curves on S^{n-1} That Lead to Eigenvalues or Their Means of a Matrix. <i>SIAM Journal on Algebraic and Discrete Methods</i> , 1986 , 7, 425-432		8
36	Structured inverse eigenvalue problems 2002 , 1-72		7
35	Scaled Toda-like flows. <i>Linear Algebra and Its Applications</i> , 1995 , 215, 261-273	0.9	7
34	Symmetric Toeplitz Matrices with Two Prescribed Eigenpairs. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1994 , 15, 623-635	1.5	7
33	On a numerical treatment for the curve-tracing of the homotopy method. <i>Numerische Mathematik</i> , 1983 , 42, 323-329	2.2	7
32	ChemModLab: a web-based cheminformatics modeling laboratory. <i>In Silico Biology</i> , 2011 , 11, 61-81	2	7
31	Computing absolute maximum correlation. <i>IMA Journal of Numerical Analysis</i> , 2012 , 32, 163-184	1.8	6
30	On computing minimal realizable spectral radii of non-negative matrices. <i>Numerical Linear Algebra With Applications</i> , 2005 , 12, 77-86	1.6	6
29	A mathematical framework for the linear reconstructor problem in adaptive optics. <i>Linear Algebra and Its Applications</i> , 2000 , 316, 113-135	0.9	6
28	Rank Modifications of Semidefinite Matrices Associated with a Secant Update Formula. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1998 , 20, 428-436	1.5	6
27	On constructing matrices with prescribed singular values and diagonal elements. <i>Linear Algebra and Its Applications</i> , 1999 , 288, 11-22	0.9	6
26	The educational testing problem revisited. <i>IMA Journal of Numerical Analysis</i> , 1995 , 15, 141-160	1.8	6

25	A computational framework of gradient flows for general linear matrix equations. <i>Numerical Algorithms</i> , 2015 , 68, 121-141	2.1	5
24	A study of singular spectrum analysis with global optimization techniques. <i>Journal of Global Optimization</i> , 2014 , 60, 551-574	1.5	5
23	Asymptotic analysis of Toda lattice on diagonalizable matrices. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 1985 , 9, 193-201	1.3	5
22	Constructing optimal transition matrix for Markov chain Monte Carlo. <i>Linear Algebra and Its Applications</i> , 2015 , 487, 184-202	0.9	4
21	Nonnegative rank factorization— heuristic approach via rank reduction. <i>Numerical Algorithms</i> , 2014 , 65, 251-274	2.1	3
20	On the Least Squares Approximation of Symmetric-Definite Pencils Subject to Generalized Spectral Constraints. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1998 , 19, 1-20	1.5	3
19	Nonlinear Power-Like and SVD-Like Iterative Schemes with Applications to Entangled Bipartite Rank-1 Approximation. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, S448-S474	2.6	3
18	Tensor Spline Approximation in Economic Dynamics with Uncertainties. <i>Computational Economics</i> , 2013 , 42, 175-198	1.4	2
17	Inverse mode problems for real and symmetric quadratic models. <i>Inverse Problems</i> , 2010 , 26, 065003	2.3	2
16	Dynamical System Characterization of the Central Path and Its Variants— A Revisit. <i>SIAM Journal on Applied Dynamical Systems</i> , 2011 , 10, 887-905	2.8	2
15	An automatic multistep method for solving stiff initial value problems. <i>Journal of Computational and Applied Mathematics</i> , 1983 , 9, 229-238	2.4	2
14	Solving an inverse eigenvalue problem with triple constraints on eigenvalues, singular values, and diagonal elements. <i>Inverse Problems</i> , 2017 , 33, 085003	2.3	1
13	On the finite rank and finite-dimensional representation of bounded semi-infinite Hankel operators. <i>IMA Journal of Numerical Analysis</i> , 2015 , 35, 1256-1276	1.8	1
12	Nonlinear power-like iteration by polar decomposition and its application to tensor approximation. <i>Numerische Mathematik</i> , 2020 , 144, 729-749	2.2	1
11	Data Mining and Applied Linear Algebra 2008 ,		1
10	The stability group of symmetric Toeplitz matrices. <i>Linear Algebra and Its Applications</i> , 1993 , 185, 119-123.	2.9	1
9	Quadratic Inverse Eigenvalue Problem and Its Applications to Model Updating —An Overview. <i>Mathematics in Industry</i> , 2008 , 323-340	0.2	1
8	On the first degree Fejér-Riesz factorization and its applications to $X + A^*X A = Q$. <i>Linear Algebra and Its Applications</i> , 2016 , 489, 123-143	0.9	1

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| 7 | Symbolic calculation of the trace of the power of a tridiagonal matrix. <i>Computing (Vienna/New York)</i> , 1985 , 35, 257-268 | 2.2 | 0 |
| 6 | Structure-preserving isospectral transformation for total or partial decoupling of self-adjoint quadratic pencils. <i>Journal of Sound and Vibration</i> , 2019 , 449, 157-171 | 3.9 | |
| 5 | Reachable Matrices by a QR Step with Shift. <i>SIAM Journal on Applied Dynamical Systems</i> , 2006 , 5, 91-107 | 2.8 | |
| 4 | On robust matrix completion with prescribed eigenvalues. <i>Future Generation Computer Systems</i> , 2003 , 19, 1139-1153 | 7.5 | |
| 3 | A numerical method for solving interface problems arising in two-point boundary value problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1989 , 74, 99-113 | 5.7 | |
| 2 | A Complex-Valued Gradient Flow for the Entangled Bipartite Low Rank Approximation. <i>Computer Physics Communications</i> , 2021 , 108185 | 4.2 | |
| 1 | Rank-1 Approximation for Entangled Multipartite Real Systems. <i>Journal of Scientific Computing</i> , 2022 , 91, 1 | 2.3 | |