

# Moody T Chu

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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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	Rank-1 Approximation for Entangled Multipartite Real Systems. <i>Journal of Scientific Computing</i> , <b>2022</b> , 91, 1	2.3	
95	A Complex-Valued Gradient Flow for the Entangled Bipartite Low Rank Approximation. <i>Computer Physics Communications</i> , <b>2021</b> , 108185	4.2	
94	Nonlinear power-like iteration by polar decomposition and its application to tensor approximation. <i>Numerische Mathematik</i> , <b>2020</b> , 144, 729-749	2.2	1
93	Structure-preserving isospectral transformation for total or partial decoupling of self-adjoint quadratic pencils. <i>Journal of Sound and Vibration</i> , <b>2019</b> , 449, 157-171	3.9	
92	SVD-Based Algorithms for the Best Rank-1 Approximation of a Symmetric Tensor. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2018</b> , 39, 1095-1115	1.5	12
91	Convergence analysis of an SVD-based algorithm for the best rank-1 tensor approximation. <i>Linear Algebra and Its Applications</i> , <b>2018</b> , 555, 53-69	0.9	12
90	Markov chains with memory, tensor formulation, and the dynamics of power iteration. <i>Applied Mathematics and Computation</i> , <b>2017</b> , 303, 226-239	2.7	13
89	Solving an inverse eigenvalue problem with triple constraints on eigenvalues, singular values, and diagonal elements. <i>Inverse Problems</i> , <b>2017</b> , 33, 085003	2.3	1
88	On the first degree Fejérian factorization and its applications to $X + A^*X A = Q$ . <i>Linear Algebra and Its Applications</i> , <b>2016</b> , 489, 123-143	0.9	1
87	On the finite rank and finite-dimensional representation of bounded semi-infinite Hankel operators. <i>IMA Journal of Numerical Analysis</i> , <b>2015</b> , 35, 1256-1276	1.8	1
86	Orthogonal Low Rank Tensor Approximation: Alternating Least Squares Method and Its Global Convergence. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2015</b> , 36, 1-19	1.5	26
85	Constructing optimal transition matrix for Markov chain Monte Carlo. <i>Linear Algebra and Its Applications</i> , <b>2015</b> , 487, 184-202	0.9	4
84	A computational framework of gradient flows for general linear matrix equations. <i>Numerical Algorithms</i> , <b>2015</b> , 68, 121-141	2.1	5
83	A study of singular spectrum analysis with global optimization techniques. <i>Journal of Global Optimization</i> , <b>2014</b> , 60, 551-574	1.5	5
82	Attaining the Optimal Gaussian Diffusion Acceleration. <i>Journal of Statistical Physics</i> , <b>2014</b> , 155, 571-590	1.5	10
81	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> , <b>2014</b> , 35, 1058-1072	1.5	57
80	Nonnegative rank factorization heuristic approach via rank reduction. <i>Numerical Algorithms</i> , <b>2014</b> , 65, 251-274	2.1	3

79	Tensor Spline Approximation in Economic Dynamics with Uncertainties. <i>Computational Economics</i> , <b>2013</b> , 42, 175-198	1.4	2
78	Computing absolute maximum correlation. <i>IMA Journal of Numerical Analysis</i> , <b>2012</b> , 32, 163-184	1.8	6
77	Dynamical System Characterization of the Central Path and Its Variants A Revisit. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2011</b> , 10, 887-905	2.8	2
76	ChemModLab: a web-based cheminformatics modeling laboratory. <i>In Silico Biology</i> , <b>2011</b> , 11, 61-81	2	7
75	Inverse mode problems for real and symmetric quadratic models. <i>Inverse Problems</i> , <b>2010</b> , 26, 065003	2.3	2
74	SEMI-DEFINITE PROGRAMMING TECHNIQUES FOR STRUCTURED QUADRATIC INVERSE EIGENVALUE PROBLEMS. <i>Numerical Algorithms</i> , <b>2010</b> , 53, 419-437	2.1	18
73	On the Nonnegative Rank of Euclidean Distance Matrices. <i>Linear Algebra and Its Applications</i> , <b>2010</b> , 433, 681-689	0.9	11
72	Spectral decomposition of real symmetric quadratic $\lambda$ -matrices and its applications. <i>Mathematics of Computation</i> , <b>2009</b> , 78, 293-293	1.6	28
71	Parameter Reconstruction of Vibration Systems from Partial Eigeninformation. <i>Journal of Sound and Vibration</i> , <b>2009</b> , 327, 391-401	3.9	8
70	Quadratic Model Updating with Symmetry, Positive Definiteness, and No Spill-Over. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2009</b> , 31, 546-564	1.5	36
69	Low-Dimensional Polytope Approximation and Its Applications to Nonnegative Matrix Factorization. <i>SIAM Journal of Scientific Computing</i> , <b>2008</b> , 30, 1131-1155	2.6	17
68	Projected Pseudotransient Continuation. <i>SIAM Journal on Numerical Analysis</i> , <b>2008</b> , 46, 3071-3083	2.4	20
67	Data Mining and Applied Linear Algebra <b>2008</b> ,		1
66	Spillover Phenomenon in Quadratic Model Updating. <i>AIAA Journal</i> , <b>2008</b> , 46, 420-428	2.1	42
65	Linear algebra algorithms as dynamical systems. <i>Acta Numerica</i> , <b>2008</b> , 17, 1-86	15.1	52
64	Total decoupling of general quadratic pencils, Part II: Structure preserving isospectral flows. <i>Journal of Sound and Vibration</i> , <b>2008</b> , 309, 112-128	3.9	14
63	Total decoupling of general quadratic pencils, Part I: Theory. <i>Journal of Sound and Vibration</i> , <b>2008</b> , 309, 96-111	3.9	22
62	Quadratic Inverse Eigenvalue Problem and Its Applications to Model Updating [An Overview. <i>Mathematics in Industry</i> , <b>2008</b> , 323-340	0.2	1

61	Updating quadratic models with no spillover effect on unmeasured spectral data. <i>Inverse Problems</i> , <b>2007</b> , 23, 243-256	2.3	31
60	Structured Quadratic Inverse Eigenvalue Problem, I. Serially Linked Systems. <i>SIAM Journal of Scientific Computing</i> , <b>2007</b> , 29, 2668-2685	2.6	16
59	Reachable Matrices by a QR Step with Shift. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2006</b> , 5, 91-107	2.8	
58	Low rank update of singular values. <i>Mathematics of Computation</i> , <b>2006</b> , 75, 1351-1367	1.6	10
57	On the Low-Rank Approximation of Data on the Unit Sphere. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2005</b> , 27, 46-60	1.5	10
56	On computing minimal realizable spectral radii of non-negative matrices. <i>Numerical Linear Algebra With Applications</i> , <b>2005</b> , 12, 77-86	1.6	6
55	On the inverse problem of constructing symmetric pentadiagonal Toeplitz matrices from their three largest eigenvalues. <i>Inverse Problems</i> , <b>2005</b> , 21, 1879-1894	2.3	11
54	Inverse Eigenvalue Problems <b>2005</b> ,		113
53	On the semigroup of standard symplectic matrices and its applications. <i>Linear Algebra and Its Applications</i> , <b>2004</b> , 389, 215-225	0.9	9
52	Gradient flow methods for matrix completion with prescribed eigenvalues. <i>Linear Algebra and Its Applications</i> , <b>2004</b> , 379, 85-112	0.9	12
51	On Inverse Quadratic Eigenvalue Problems with Partially Prescribed Eigenstructure. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2004</b> , 25, 995-1020	1.5	37
50	Structured low rank approximation. <i>Linear Algebra and Its Applications</i> , <b>2003</b> , 366, 157-172	0.9	97
49	On robust matrix completion with prescribed eigenvalues. <i>Future Generation Computer Systems</i> , <b>2003</b> , 19, 1139-1153	7.5	
48	Real-Valued, Low Rank, Circulant Approximation. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2003</b> , 24, 645-659	1.5	10
47	Structured inverse eigenvalue problems. <i>Acta Numerica</i> , <b>2002</b> , 11, 1-71	15.1	245
46	The Centroid Decomposition: Relationships between Discrete Variational Decompositions and SVDs. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>2002</b> , 23, 1025-1044	1.5	19
45	Structured inverse eigenvalue problems <b>2002</b> , 1-72		7
44	The Orthogonally Constrained Regression Revisited. <i>Journal of Computational and Graphical Statistics</i> , <b>2001</b> , 10, 746-771	1.4	30

43	A mathematical framework for the linear reconstructor problem in adaptive optics. <i>Linear Algebra and Its Applications</i> , <b>2000</b> , 316, 113-135	0.9	6
42	A Fast Recursive Algorithm for Constructing Matrices with Prescribed Eigenvalues and Singular Values. <i>SIAM Journal on Numerical Analysis</i> , <b>2000</b> , 37, 1004-1020	2.4	12
41	On constructing matrices with prescribed singular values and diagonal elements. <i>Linear Algebra and Its Applications</i> , <b>1999</b> , 288, 11-22	0.9	6
40	On a differential equation approach to the weighted orthogonal Procrustes problem. <i>Statistics and Computing</i> , <b>1998</b> , 8, 125-133	1.8	18
39	On the optimal consistent approximation to pairwise comparison matrices. <i>Linear Algebra and Its Applications</i> , <b>1998</b> , 272, 155-168	0.9	24
38	On the Least Squares Approximation of Symmetric-Definite Pencils Subject to Generalized Spectral Constraints. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1998</b> , 19, 1-20	1.5	3
37	A Numerical Method for the Inverse Stochastic Spectrum Problem. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1998</b> , 19, 1027-1039	1.5	20
36	Inverse Eigenvalue Problems. <i>SIAM Review</i> , <b>1998</b> , 40, 1-39	7.4	217
35	Rank Modifications of Semidefinite Matrices Associated with a Secant Update Formula. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1998</b> , 20, 428-436	1.5	6
34	Orthomax Rotation Problem. A Differential Equation Approach. <i>Behaviormetrika</i> , <b>1998</b> , 25, 13-23	1.3	8
33	On a Variational Formulation of the Generalized Singular Value Decomposition. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1997</b> , 18, 1082-1092	1.5	20
32	On the Least Squares Solution of Inverse Eigenvalue Problems. <i>SIAM Journal on Numerical Analysis</i> , <b>1996</b> , 33, 2417-2430	2.4	19
31	Scaled Toda-like flows. <i>Linear Algebra and Its Applications</i> , <b>1995</b> , 215, 261-273	0.9	7
30	A Rank One Reduction Formula and Its Applications to Matrix Factorizations. <i>SIAM Review</i> , <b>1995</b> , 37, 512-530	7.4	66
29	The educational testing problem revisited. <i>IMA Journal of Numerical Analysis</i> , <b>1995</b> , 15, 141-160	1.8	6
28	Constructing a Hermitian Matrix from Its Diagonal Entries and Eigenvalues. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1995</b> , 16, 207-217	1.5	30
27	Symmetric Toeplitz Matrices with Two Prescribed Eigenpairs. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1994</b> , 15, 623-635	1.5	7
26	On a Multivariate Eigenvalue Problem, Part I: Algebraic Theory and a Power Method. <i>SIAM Journal of Scientific Computing</i> , <b>1993</b> , 14, 1089-1106	2.6	53

25	The stability group of symmetric Toeplitz matrices. <i>Linear Algebra and Its Applications</i> , <b>1993</b> , 185, 119-123.	0.9	1
24	Numerical Methods for Inverse Singular Value Problems. <i>SIAM Journal on Numerical Analysis</i> , <b>1992</b> , 29, 885-903	2.4	40
23	Matrix differential equations: a continuous realization process for linear algebra problems. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , <b>1992</b> , 18, 1125-1146	1.3	19
22	A continuous Jacobi-like approach to the simultaneous reduction of real matrices. <i>Linear Algebra and Its Applications</i> , <b>1991</b> , 147, 75-96	0.9	34
21	Least Squares Approximation by Real Normal Matrices with Specified Spectrum. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1991</b> , 12, 115-127	1.5	24
20	Constructing Symmetric Nonnegative Matrices with Prescribed Eigenvalues by Differential Equations. <i>SIAM Journal on Mathematical Analysis</i> , <b>1991</b> , 22, 1372-1387	1.7	26
19	Solving Additive Inverse Eigenvalue Problems for Symmetric Matrices by the Homotopy Method. <i>IMA Journal of Numerical Analysis</i> , <b>1990</b> , 10, 331-342	1.8	12
18	The Projected Gradient Method for Least Squares Matrix Approximations with Spectral Constraints. <i>SIAM Journal on Numerical Analysis</i> , <b>1990</b> , 27, 1050-1060	2.4	94
17	A numerical method for solving interface problems arising in two-point boundary value problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>1989</b> , 74, 99-113	5.7	
16	A note on the homotopy method for linear algebraic eigenvalue problems. <i>Linear Algebra and Its Applications</i> , <b>1988</b> , 105, 225-236	0.9	12
15	On the Continuous Realization of Iterative Processes. <i>SIAM Review</i> , <b>1988</b> , 30, 375-387	7.4	61
14	Isospectral Flows and Abstract Matrix Factorizations. <i>SIAM Journal on Numerical Analysis</i> , <b>1988</b> , 25, 1383-1391	1.7	29
13	Homotopy Method for General $\lambda$ -Matrix Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , <b>1988</b> , 9, 528-536	1.5	21
12	Parallel Solution of ODEs by Multiblock Methods. <i>SIAM Journal on Scientific and Statistical Computing</i> , <b>1987</b> , 8, 342-353		63
11	A continuous approximation to the generalized Schur decomposition. <i>Linear Algebra and Its Applications</i> , <b>1986</b> , 78, 119-132	0.9	12
10	A differential equation approach to the singular value decomposition of bidiagonal matrices. <i>Linear Algebra and Its Applications</i> , <b>1986</b> , 80, 71-79	0.9	22
9	Curves on $S^{n-1}$ That Lead to Eigenvalues or Their Means of a Matrix. <i>SIAM Journal on Algebraic and Discrete Methods</i> , <b>1986</b> , 7, 425-432		8
8	Asymptotic analysis of Toda lattice on diagonalizable matrices. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , <b>1985</b> , 9, 193-201	1.3	5

7	Symbolic calculation of the trace of the power of a tridiagonal matrix. <i>Computing (Vienna/New York)</i> , <b>1985</b> , 35, 257-268	2.2	0
6	A simple application of the homotopy method to symmetric eigenvalue problems. <i>Linear Algebra and Its Applications</i> , <b>1984</b> , 59, 85-90	0.9	31
5	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> , <b>1984</b> , 15, 98-104	1.7	14
4	The Generalized Toda Flow, the QR Algorithm and the Center Manifold Theory. <i>SIAM Journal on Algebraic and Discrete Methods</i> , <b>1984</b> , 5, 187-201		54
3	On a numerical treatment for the curve-tracing of the homotopy method. <i>Numerische Mathematik</i> , <b>1983</b> , 42, 323-329	2.2	7
2	An automatic multistep method for solving stiff initial value problems. <i>Journal of Computational and Applied Mathematics</i> , <b>1983</b> , 9, 229-238	2.4	2
1	Nonlinear Power-Like and SVD-Like Iterative Schemes with Applications to Entangled Bipartite Rank-1 Approximation. <i>SIAM Journal of Scientific Computing</i> , S448-S474	2.6	3