Alan Edelman

List of Publications by Year
in descending order

54	8,700	230014	214428
papers	citations	27	50
		h-index	g-index

55	55	55	7850
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the Cartan decomposition for classical random matrix ensembles. Journal of Mathematical Physics, 2022, 63, .	0.5	3
2	The densities and distributions of the largest eigenvalue and the trace of a Beta–Wishart matrix. Random Matrices: Theory and Application, 2021, 10, 2150010.	0.5	0
3	Circuitscape in Julia: Empowering Dynamic Approaches to Connectivity Assessment. Land, 2021, 10, 301.	1.2	53
4	A simple model for assessing climate control trade-offs and responding to unanticipated climate outcomes. Environmental Research Letters, 2021, 16, 104012.	2.2	3
5	High-performance symbolic-numerics via multiple dispatch. ACM Communications in Computer Algebra, 2021, 55, 92-96.	0.2	19
6	Oceananigans.jl: Fast and friendly geophysical fluid dynamics on GPUs. Journal of Open Source Software, 2020, 5, 2018.	2.0	27
7	The GSVD: Where are the Ellipses?, Matrix Trigonometry, and More. SIAM Journal on Matrix Analysis and Applications, 2020, 41, 1826-1856.	0.7	3
8	Rapid software prototyping for heterogeneous and distributed platforms. Advances in Engineering Software, 2019, 132, 29-46.	1.8	29
9	On computing Schur functions and series thereof. Journal of Algebraic Combinatorics, 2019, 50, 127-141.	0.4	5
10	Random Hyperplanes, Generalized Singular Values & "What's My β?" , 2018, , .		1
11	Julia: A Fresh Approach to Numerical Computing. SIAM Review, 2017, 59, 65-98.	4.2	3,220
12	Beyond universality in random matrix theory. Annals of Applied Probability, 2016, 26, .	0.6	18
13	The singular values of the GUE (less is more). Random Matrices: Theory and Application, 2015, 04, 1550021.	0.5	16
14	Random Triangle Theory with Geometry and Applications. Foundations of Computational Mathematics, 2015, 15, 681-713.	1.5	2
15	Eigenvalue distributions of beta-Wishart matrices. Random Matrices: Theory and Application, 2014, 03, 1450009.	0.5	7
16	THE BETA-MANOVA ENSEMBLE WITH GENERAL COVARIANCE. Random Matrices: Theory and Application, 2014, 03, 1450002.	0.5	6
17	Low-temperature random matrix theory at the soft edge. Journal of Mathematical Physics, 2014, 55, .	0.5	2
18	The beta-Wishart ensemble. Journal of Mathematical Physics, 2013, 54, 083507.	0.5	12

#	ARTICLE	IF	CITATIONS
19	Random Matrix Theory and Its Innovative Applications. Fields Institute Communications, 2013, , 91-116.	0.6	24
20	Density of States of Quantum Spin Systems from Isotropic Entanglement. Physical Review Letters, 2011, 107, 097205.	2.9	9
21	Performance of sample covariance based capon bearing only tracker. , 2011, , .		1
22	Sturm Sequences and Random Eigenvalue Distributions. Foundations of Computational Mathematics, 2009, 9, 461-483.	1.5	12
23	The Beta-Jacobi Matrix Model, the CS Decomposition, and Generalized Singular Value Problems. Foundations of Computational Mathematics, 2008, 8, 259-285.	1.5	45
24	The Polynomial Method for Random Matrices. Foundations of Computational Mathematics, 2008, 8, 649-702.	1.5	40
25	Statistical eigen-inference from large Wishart matrices. Annals of Statistics, 2008, 36, .	1.4	51
26	The Star-P High Performance Computing Platform. , 2007, , .		5
27	MOPS: Multivariate orthogonal polynomials (symbolically). Journal of Symbolic Computation, 2007, 42, 587-620.	0.5	54
28	From Random Matrices to Stochastic Operators. Journal of Statistical Physics, 2007, 127, 1121-1165.	0.5	66
29	The efficient evaluation of the hypergeometric function of a matrix argument. Mathematics of Computation, 2006, 75, 833-847.	1.1	134
30	Global spectrum fluctuations for the β-Hermite and β-Laguerre ensembles via matrix models. Journal of Mathematical Physics, 2006, 47, 063302.	0.5	76
31	Eigenvalues of Hermite and Laguerre ensembles: large beta asymptotics. Annales De L'institut Henri Poincare (B) Probability and Statistics, 2005, 41, 1083-1099.	0.7	43
32	Random matrix theory. Acta Numerica, 2005, 14, 233-297.	6.3	382
33	Tails of Condition Number Distributions. SIAM Journal on Matrix Analysis and Applications, 2005, 27, 547-560.	0.7	47
34	Pascal Matrices. American Mathematical Monthly, 2004, 111, 189-197.	0.2	63
35	Matrix models for beta ensembles. Journal of Mathematical Physics, 2002, 43, 5830-5847.	0.5	399
36	Staircase Failures Explained by Orthogonal Versal Forms. SIAM Journal on Matrix Analysis and Applications, 2000, 21, 1004-1025.	0.7	9

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37	A Geometric Approach to Perturbation Theory of Matrices and Matrix Pencils. Part II: A Stratification-Enhanced Staircase Algorithm. SIAM Journal on Matrix Analysis and Applications, 1999, 20, 667-699.	0.7	69
38	The Geometry of Algorithms with Orthogonality Constraints. SIAM Journal on Matrix Analysis and Applications, 1998, 20, 303-353.	0.7	1,936
39	A counterexample to a hadamard matrix pivot conjecture. Linear and Multilinear Algebra, 1998, 44, 53-56.	0.5	6
40	A Geometric Approach to Perturbation Theory of Matrices and Matrix Pencils. Part I: Versal Deformations. SIAM Journal on Matrix Analysis and Applications, 1997, 18, 653-692.	0.7	110
41	The Probability that a Random Real Gaussian Matrix haskReal Eigenvalues, Related Distributions, and the Circular Law. Journal of Multivariate Analysis, 1997, 60, 203-232.	0.5	166
42	On conjugate gradient-like methods for eigen-like problems. BIT Numerical Mathematics, 1996, 36, 494-508.	1.0	28
43	On Parlett's matrix norm inequality for the Cholesky decomposition. Numerical Linear Algebra With Applications, 1995, 2, 243-250.	0.9	4
44	The dimension of matrices (matrix pencils) with given Jordan (Kronecker) canonical forms. Linear Algebra and Its Applications, 1995, 230, 61-87.	0.4	57
45	On the complete pivoting conjecture for a hadamard matrix of order 12. Linear and Multilinear Algebra, 1995, 38, 181-187.	0.5	21
46	Polynomial roots from companion matrix eigenvalues. Mathematics of Computation, 1995, 64, 763-776.	1.1	140
47	How many zeros of a random polynomial are real?. Bulletin of the American Mathematical Society, 1995, 32, 1-37.	0.8	260
48	How many eigenvalues of a random matrix are real?. Journal of the American Mathematical Society, 1994, 7, 247-267.	1.9	106
49	Hypercube Algorithms for Direct N-Body Solvers for Different Granularities. SIAM Journal of Scientific Computing, 1993, 14, 1143-1158.	1.3	9
50	Large Dense Numerical Linear Algebra in 1993: the Parallel Computing Influence. The International Journal of Supercomputer Applications, 1993, 7, 113-128.	0.6	37
51	On the distribution of a scaled condition number. Mathematics of Computation, 1992, 58, 185-190.	1.1	60
52	The distribution and moments of the smallest eigenvalue of a random matrix of wishart type. Linear Algebra and Its Applications, 1991, 159, 55-80.	0.4	85
53	The first annual large dense linear system survey. ACM SIGNUM Newsletter, 1991, 26, 6-12.	0.2	5
54	Eigenvalues and Condition Numbers of Random Matrices. SIAM Journal on Matrix Analysis and Applications, 1988, 9, 543-560.	0.7	715