Rachel

List of Publications by Year
in descending order

51 papers	2,220 citations	331259 21 h-index	276539 41 g-index
53 all docs	53 docs citations	53 times ranked	1769 citing authors

#	Article	IF	Citations
1	New and Improved Johnson–Lindenstrauss Embeddings via the Restricted Isometry Property. SIAM Journal on Mathematical Analysis, 2011, 43, 1269-1281.	0.9	223
2	Sparse Legendre expansions via <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si12.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>â„“</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:mrow></mml:... Journal of Approximation Theory, 2012, 164, 517-533.	0.5	194
3	Stable Image Reconstruction Using Total Variation Minimization. SIAM Journal on Imaging Sciences, 2013, 6, 1035-1058.	1.3	194
4	Low-rank Matrix Recovery via Iteratively Reweighted Least Squares Minimization. SIAM Journal on Optimization, 2011, 21, 1614-1640.	1.2	160
5	Stable and Robust Sampling Strategies for Compressive Imaging. IEEE Transactions on Image Processing, 2014, 23, 612-622.	6.0	145
6	Exact Recovery of Chaotic Systems from Highly Corrupted Data. Multiscale Modeling and Simulation, 2017, 15, 1108-1129.	0.6	128
7	Stochastic gradient descent, weighted sampling, and the randomized Kaczmarz algorithm. Mathematical Programming, 2016, 155, 549-573.	1.6	125
8	One-Bit Compressive Sensing With Norm Estimation. IEEE Transactions on Information Theory, 2016, 62, 2748-2758.	1.5	120
9	Compressed Sensing With Cross Validation. IEEE Transactions on Information Theory, 2009, 55, 5773-5782.	1.5	118
10	Interpolation via weighted â„“1 minimization. Applied and Computational Harmonic Analysis, 2016, 40, 321-351.	1.1	108
11	Extracting Sparse High-Dimensional Dynamics from Limited Data. SIAM Journal on Applied Mathematics, 2018, 78, 3279-3295.	0.8	93
12	Near-Optimal Compressed Sensing Guarantees for Total Variation Minimization. IEEE Transactions on Image Processing, 2013, 22, 3941-3949.	6.0	91
13	Compressive Sensing with Redundant Dictionaries and Structured Measurements. SIAM Journal on Mathematical Analysis, 2015, 47, 4606-4629.	0.9	60
14	Two-Subspace Projection Method for Coherent Overdetermined Systems. Journal of Fourier Analysis and Applications, 2013, 19, 256-269.	0.5	37
15	Relax, No Need to Round. , 2015, , .		33
16	Iterative Thresholding Meets Free-Discontinuity Problems. Foundations of Computational Mathematics, 2010, 10, 527-567.	1.5	29
17	Root-Exponential Accuracy for Coarse Quantization of Finite Frame Expansions. IEEE Transactions on Information Theory, 2012, 58, 1069-1079.	1.5	29
18	Weighted Eigenfunction Estimates with Applications to Compressed Sensing. SIAM Journal on Mathematical Analysis, 2012, 44, 3481-3501.	0.9	26

#	Article	IF	Citations
19	A near-stationary subspace for ridge approximation. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 402-421.	3.4	26
20	Clustering subgaussian mixtures by semidefinite programming. Information and Inference, 2017, 6, 389-415.	0.9	26
21	Extracting Structured Dynamical Systems Using Sparse Optimization With Very Few Samples. Multiscale Modeling and Simulation, 2020, 18, 1435-1461.	0.6	26
22	Subfunctionalization: How often does it occur? How long does it take?. Theoretical Population Biology, 2004, 66, 93-100.	0.5	23
23	The Local Convexity of Solving Systems of Quadratic Equations. Results in Mathematics, 2017, 71, 569-608.	0.4	21
24	Shape deformation in continuous map generalization. GeoInformatica, 2009, 13, 203-221.	2.0	19
25	Computing the confidence levels for a root-mean-square test of goodness-of-fit. Applied Mathematics and Computation, 2011, 217, 9072-9084.	1.4	19
26	Lower bounds for the error decay incurred by coarse quantization schemes. Applied and Computational Harmonic Analysis, 2012, 32, 131-138.	1.1	18
27	Recovery guarantees for exemplar-based clustering. Information and Computation, 2015, 245, 165-180.	0.5	18
28	On the Complexity of Mumfordâ€"Shah-Type Regularization, Viewed as a Relaxed Sparsity Constraint. IEEE Transactions on Image Processing, 2010, 19, 2787-2789.	6.0	12
29	Improved bounds for sparse recovery from subsampled random convolutions. Annals of Applied Probability, 2018, 28, .	0.6	12
30	The Sample Complexity of Weighted<?Pub _newline ?>Sparse Approximation. IEEE Transactions on Signal Processing, 2016, 64, 3145-3155.	3.2	11
31	On Robustness Properties of Beta Encoders and Golden Ratio Encoders. IEEE Transactions on Information Theory, 2008, 54, 4324-4334.	1.5	10
32	Faster Johnsonâ€"Lindenstrauss transforms via Kronecker products. Information and Inference, 2021, 10, 1533-1562.	0.9	8
33	A Unified Framework for Linear Dimensionality Reduction in L1. Results in Mathematics, 2016, 70, 209-231.	0.4	7
34	A Symbol-Based Algorithm for Decoding Bar Codes. SIAM Journal on Imaging Sciences, 2013, 6, 56-77.	1.3	6
35	Recovery guarantees for polynomial coefficients from weakly dependent data with outliers. Journal of Approximation Theory, 2020, 259, 105472.	0.5	6
36	Testing Hardy-Weinberg equilibrium with a simple root-mean-square statistic. Biostatistics, 2014, 15, 74-86.	0.9	5

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37	An arithmetic–geometric mean inequality for products of three matrices. Linear Algebra and Its Applications, 2016, 488, 1-12.	0.4	5
38	MC2: a two-phase algorithm for leveraged matrix completion. Information and Inference, 2018, 7, 581-604.	0.9	5
39	Batched Stochastic Gradient Descent with Weighted Sampling. Springer Proceedings in Mathematics and Statistics, 2017, , 279-306.	0.1	5
40	Clustering subgaussian mixtures with k-means. , 2016, , .		4
41	Concentration inequalities for random matrix products. Linear Algebra and Its Applications, 2020, 594, 81-94.	0.4	3
42	Compressive sensing with redundant dictionaries and structured measurements. , 2015, , .		2
43	Matrix Concentration for Products. Foundations of Computational Mathematics, 0, , 1.	1.5	2
44	Efficient and stable recovery of Legendre-sparse polynomials. , 2010, , .		1
45	Some deficiencies of ℓ^2 and classical exact tests of significance. Applied and Computational Harmonic Analysis, 2014, 36, 361-386.	1.1	1
46	Greedy Variance Estimation for the LASSO. Applied Mathematics and Optimization, 2020, 82, 1161-1182.	0.8	1
47	Quiet sigma delta quantization, and global convergence for a class of asymmetric piecewise-affine maps. Nonlinearity, 2010, 23, 2165-2182.	0.6	0
48	Learning the second-moment matrix of a smooth function from point samples. , 2017, , .		0
49	Bias of Homotopic Gradient Descent for the Hinge Loss. Applied Mathematics and Optimization, 2021, 84, 621-647.	0.8	0
50	Importance sampling in signal processing applications. Applied and Numerical Harmonic Analysis, 2015, , 205-228.	0.1	0
51	Overparameterization and Generalization Error: Weighted Trigonometric Interpolation. SIAM Journal on Mathematics of Data Science, 2022, 4, 885-908.	1.0	0