

# Stephen R Becker

## List of Publications by Year in descending order

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44  
papers

3,092  
citations

623734

14  
h-index

395702

33  
g-index

45  
all docs

45  
docs citations

45  
times ranked

3222  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonstationary Modeling With Sparsity for Spatial Data via the Basis Graphical Lasso. <i>Journal of Computational and Graphical Statistics</i> , 2021, 30, 375-389.	1.7	6
2	Bounds for the Tracking Error of First-Order Online Optimization Methods. <i>Journal of Optimization Theory and Applications</i> , 2021, 189, 437-457.	1.5	4
3	A stochastic subspace approach to gradient-free optimization in high dimensions. <i>Computational Optimization and Applications</i> , 2021, 79, 339-368.	1.6	7
4	Stochastic Gradient Langevin Dynamics with Variance Reduction. , 2021, , .		0
5	A study of scalar optically-pumped magnetometers for use in magnetoencephalography without shielding. <i>Physics in Medicine and Biology</i> , 2021, 66, 175030.	3.0	16
6	Randomization of approximate bilinear computation for matrix multiplication. <i>International Journal of Computer Mathematics: Computer Systems Theory</i> , 2021, 6, 54-93.	1.1	1
7	Safe Feature Elimination for Non-negativity Constrained Convex Optimization. <i>Journal of Optimization Theory and Applications</i> , 2020, 184, 931-952.	1.5	0
8	Fast randomized matrix and tensor interpolative decomposition using CountSketch. <i>Advances in Computational Mathematics</i> , 2020, 46, 1.	1.6	5
9	Resolvability of Hamming Graphs. <i>SIAM Journal on Discrete Mathematics</i> , 2020, 34, 2063-2081.	0.8	6
10	Robust least squares for quantized data matrices. <i>Signal Processing</i> , 2020, 176, 107711.	3.7	2
11	Guarantees for the Kronecker fast Johnson-Lindenstrauss transform using a coherence and sampling argument. <i>Linear Algebra and Its Applications</i> , 2020, 602, 120-137.	0.9	10
12	Efficient Solvers for Sparse Subspace Clustering. <i>Signal Processing</i> , 2020, 172, 107548.	3.7	22
13	Optimization and Learning With Information Streams: Time-varying algorithms and applications. <i>IEEE Signal Processing Magazine</i> , 2020, 37, 71-83.	5.6	43
14	Analyzing the super-resolution characteristics of focused-spot illumination approaches. <i>Journal of Biomedical Optics</i> , 2020, 25, 1.	2.6	5
15	$\ell_1$ -regularized maximum likelihood estimation with focused-spot illumination quadruples the diffraction-limited resolution in fluorescence microscopy. <i>Optics Express</i> , 2020, 28, 39413.	3.4	4
16	Perturbed Proximal Descent to Escape Saddle Points for Non-convex and Non-smooth Objective Functions. <i>Proceedings of the International Neural Networks Society</i> , 2020, , 58-77.	0.6	4
17	Stochastic Lanczos estimation of genomic variance components for linear mixed-effects models. <i>BMC Bioinformatics</i> , 2019, 20, 411.	2.6	5
18	Improved fixed-rank Nyström approximation via QR decomposition: Practical and theoretical aspects. <i>Neurocomputing</i> , 2019, 363, 261-272.	5.9	19

#	ARTICLE	IF	CITATIONS
19	Online Sparse Subspace Clustering. , 2019, , .		4
20	On Quasi-Newton Forward-Backward Splitting: Proximal Calculus and Convergence. SIAM Journal on Optimization, 2019, 29, 2445-2481.	2.0	26
21	One-Pass Sparsified Gaussian Mixtures. , 2019, , .		0
22	Adapting Regularized Low-Rank Models for Parallel Architectures. SIAM Journal of Scientific Computing, 2019, 41, A163-A189.	2.8	6
23	Template polyhedra and bilinear optimization. Formal Methods in System Design, 2019, 54, 27-63.	0.8	4
24	Achieving superresolution with illumination-enhanced sparsity. Optics Express, 2018, 26, 9850.	3.4	8
25	Preconditioned Data Sparsification for Big Data with Applications to PCA and K-means. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	35
26	Efficient Adjoint Computation for Wavelet and Convolution Operators [Lecture Notes]. IEEE Signal Processing Magazine, 2016, 33, 135-147.	5.6	6
27	A randomized approach to efficient kernel clustering. , 2016, , .		5
28	Efficient dictionary learning via very sparse random projections. , 2015, , .		7
29	Designing Statistical Estimators That Balance Sample Size, Risk, and Computational Cost. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 612-624.	10.8	11
30	Metric learning with rank and sparsity constraints. , 2014, , .		6
31	Convex Optimization for Big Data: Scalable, randomized, and parallel algorithms for big data analytics. IEEE Signal Processing Magazine, 2014, 31, 32-43.	5.6	221
32	Compressive sensing: Principles and hardware implementations. , 2013, , .		9
33	Sparse simplex projections for portfolio optimization. , 2013, , .		0
34	Improving IMRT delivery efficiency with reweighted $L_1$ -minimization for inverse planning. Medical Physics, 2013, 40, 071719.	3.0	6
35	A Nonuniform Sampler for Wideband Spectrally-Sparse Environments. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 516-529.	3.6	108
36	A Compressed Sensing Parameter Extraction Platform for Radar Pulse Signal Acquisition. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 626-638.	3.6	84

#	ARTICLE	IF	CITATIONS
37	A 100MHzâ€“2GHz 12.5x sub-Nyquist rate receiver in 90nm CMOS. , 2012, , .		47
38	Design and implementation of a fully integrated compressed-sensing signal acquisition system. , 2012, , .		56
39	NESTA: A Fast and Accurate First-Order Method for Sparse Recovery. SIAM Journal on Imaging Sciences, 2011, 4, 1-39.	2.2	787
40	Dynamical Behavior Near a Liquidâ€“Liquid Phase Transition in Simulations of Supercooled Water. Journal of Physical Chemistry B, 2011, 115, 14176-14183.	2.6	75
41	Templates for convex cone problems with applications to sparse signal recovery. Mathematical Programming Computation, 2011, 3, 165-218.	4.8	390
42	Quantum State Tomography via Compressed Sensing. Physical Review Letters, 2010, 105, 150401.	7.8	708
43	Relation between the Widom line and the breakdown of the Stokes-Einstein relation in supercooled water. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9575-9579.	7.1	164
44	Fractional Stokes-Einstein and Debye-Stokes-Einstein Relations in a Network-Forming Liquid. Physical Review Letters, 2006, 97, 055901.	7.8	158