

Justin Romberg

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,958
citations

393982

19
h-index

264894

42
g-index

80
all docs

80
docs citations

80
times ranked

2502
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging via Compressive Sampling. IEEE Signal Processing Magazine, 2008, 25, 14-20.	4.6	831
2	Compressive Sensing by Random Convolution. SIAM Journal on Imaging Sciences, 2009, 2, 1098-1128.	1.3	361
3	Blind Deconvolution Using Convex Programming. IEEE Transactions on Information Theory, 2014, 60, 1711-1732.	1.5	310
4	Restricted isometries for partial random circulant matrices. Applied and Computational Harmonic Analysis, 2012, 32, 242-254.	1.1	168
5	Terahertz time-gated spectral imaging for content extraction through layered structures. Nature Communications, 2016, 7, 12665.	5.8	131
6	Sparse Recovery of Streaming Signals Using ℓ_1 -Homotopy. IEEE Transactions on Signal Processing, 2014, 62, 4209-4223.	3.2	111
7	A Nonuniform Sampler for Wideband Spectrally-Sparse Environments. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 516-529.	2.7	108
8	Fast and Accurate Algorithms for Re-Weighted ℓ_1 -Norm Minimization. IEEE Transactions on Signal Processing, 2013, 61, 5905-5916.	3.2	95
9	Dynamic Updating for ℓ_1 Minimization. IEEE Journal on Selected Topics in Signal Processing, 2010, 4, 421-434.	7.3	89
10	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.	2.7	84
11	Matched Filtering From Limited Frequency Samples. IEEE Transactions on Information Theory, 2013, 59, 3475-3496.	1.5	72
12	Sparsity penalties in dynamical system estimation. , 2011, , .		62
13	Compressive sensing on a CMOS separable transform image sensor. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	29
14	Dynamic updating for sparse time varying signals. , 2009, , .		28
15	Fast Convergence Rates of Distributed Subgradient Methods With Adaptive Quantization. IEEE Transactions on Automatic Control, 2021, 66, 2191-2205.	3.6	28
16	Discrete and Continuous-Time Soft-Thresholding for Dynamic Signal Recovery. IEEE Transactions on Signal Processing, 2015, 63, 3165-3176.	3.2	26
17	Convergence Speed of a Dynamical System for Sparse Recovery. IEEE Transactions on Signal Processing, 2013, 61, 4259-4269.	3.2	24
18	The fast Slepian transform. Applied and Computational Harmonic Analysis, 2019, 46, 624-652.	1.1	24

#	ARTICLE	IF	CITATIONS
19	Convergence Rates of Distributed Gradient Methods Under Random Quantization: A Stochastic Approximation Approach. IEEE Transactions on Automatic Control, 2021, 66, 4469-4484.	3.6	24
20	Multi-camera tracking on a graph using Markov chain Monte Carlo. , 2009, , .		23
21	Sensing by Random Convolution. , 2007, , .		21
22	Compressive Multiplexing of Correlated Signals. IEEE Transactions on Information Theory, 2015, 61, 479-498.	1.5	21
23	Fast and Guaranteed Blind Multichannel Deconvolution Under a Bilinear System Model. IEEE Transactions on Information Theory, 2018, 64, 4792-4818.	1.5	19
24	Estimation and dynamic updating of time-varying signals with sparse variations. , 2011, , .		16
25	Multichannel myopic deconvolution in underwater acoustic channels via low-rank recovery. Journal of the Acoustical Society of America, 2017, 141, 3337-3348.	0.5	15
26	The Eigenvalue Distribution of Discrete Periodic Time-Frequency Limiting Operators. IEEE Signal Processing Letters, 2018, 25, 95-99.	2.1	13
27	On the LASSO and Dantzig selector equivalence. , 2010, , .		12
28	Sketching for simultaneously sparse and low-rank covariance matrices. , 2015, , .		11
29	Compressive Deconvolution in Random Mask Imaging. IEEE Transactions on Computational Imaging, 2015, 1, 236-246.	2.6	11
30	Fast Compressive Sensing Recovery Using Generative Models with Structured Latent Variables. , 2019, , .		11
31	The Dantzig selector and generalized thresholding. , 2008, , .		10
32	Sparse Coding Using the Locally Competitive Algorithm on the TrueNorth Neurosynaptic System. Frontiers in Neuroscience, 2019, 13, 754.	1.4	9
33	Channel protection: Random coding meets sparse channels. , 2009, , .		8
34	A Light-powered, "Always-On", Smart Camera with Compressed Domain Gesture Detection. , 2016, , .		8
35	Streaming measurements in compressive sensing: ℓ_1 filtering. , 2008, , .		7
36	Compressive sampling of correlated signals. , 2011, , .		7

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37	In-Field Performance Optimization for mm-Wave Mixed-Signal Doherty Power Amplifiers: A Bandit Approach. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 5302-5315.	3.5	7
38	A Hardware-Friendly Approach Towards Sparse Neural Networks Based on LFSR-Generated Pseudo-Random Sequences. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 751-764.	3.5	7
39	Thomson's Multitaper Method Revisited. IEEE Transactions on Information Theory, 2022, 68, 4864-4891.	1.5	7
40	An overview of recent results on the identification of sparse channels using random probes. , 2010, , .		6
41	A 130 nm 165 nJ/frame Compressed-Domain Smashed-Filter-Based Mixed-Signal Classifier for "In-Sensor" Analytics in Smart Cameras. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 296-300.	2.2	6
42	A FerroFET-Based In-Memory Processor for Solving Distributed and Iterative Optimizations via Least-Squares Method. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 132-141.	1.1	6
43	Hardware-Aware Pruning of DNNs using LFSR-Generated Pseudo-Random Indices. , 2020, , .		6
44	Primal-Dual Gradient Dynamics for Cooperative Unknown Payload Manipulation without Communication. , 2020, , .		6
45	Distributed Force/Position Optimization Dynamics for Cooperative Unknown Payload Manipulation. , 2020, , .		6
46	Compressive multiplexers for correlated signals. , 2012, , .		5
47	A Light-Powered Smart Camera With Compressed Domain Gesture Detection. IEEE Transactions on Circuits and Systems for Video Technology, 2018, 28, 3077-3085.	5.6	5
48	On the Convergence of Distributed Subgradient Methods under Quantization. , 2018, , .		5
49	Compressive Sampling via Random Convolution. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2010011-2010012.	0.2	4
50	Convergence of a neural network for sparse approximation using the nonsmooth Łojasiewicz inequality. , 2013, , .		4
51	Appearance-based gesture recognition in the compressed domain. , 2017, , .		4
52	Solving Equations of Random Convex Functions via Anchored Regression. Foundations of Computational Mathematics, 2019, 19, 813-841.	1.5	4
53	Anisotropic Scatterer Models for Representing RCS of Complex Objects. , 2021, , .		4
54	Finite-Sample Analysis of Two-Time-Scale Natural Actor-Critic Algorithm. IEEE Transactions on Automatic Control, 2023, 68, 3273-3284.	3.6	4

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55	A tightest convex envelope heuristic to row sparse and rank one matrices. , 2013, , .		3
56	Robust off-grid recovery from compressed measurements. , 2014, , .		3
57	ROAST: Rapid Orthogonal Approximate Slepian Transform. IEEE Transactions on Signal Processing, 2018, 66, 5887-5901.	3.2	3
58	Sparse signal recovery and dynamic update of the underdetermined system. , 2010, , .		2
59	Superfast Tikhonov Regularization of Toeplitz Systems. IEEE Transactions on Signal Processing, 2014, 62, 3809-3821.	3.2	2
60	A 65nm compressive-sensing time-based ADC with embedded classification and INL-aware training for arrhythmia detection. , 2017, , .		2
61	Linear Two-Time-Scale Stochastic Approximation A Finite-Time Analysis. , 2019, , .		2
62	Fast Multitaper Spectral Estimation. , 2019, , .		2
63	OPTIMO: A 65-nm 279-GOPS/W 16-b Programmable Spatial-Array Processor with On-Chip Network for Solving Distributed Optimizations via the Alternating Direction Method of Multipliers. IEEE Journal of Solid-State Circuits, 2020, 55, 629-638.	3.5	2
64	A 17.8-MS/s Compressed Sensing Radar Accelerator Using a Spiking Neural Network. IEEE Journal of Solid-State Circuits, 2021, 56, 834-843.	3.5	2
65	Online Adaptive Learning in Energy Trading Stackelberg Games with Time-Coupling Constraints. , 2021, , .		2
66	Streaming Solutions for Time-Varying Optimization Problems. IEEE Transactions on Signal Processing, 2022, 70, 3582-3597.	3.2	2
67	Basis pursuit with sequential measurements and time varying signals. , 2009, , .		1
68	Efficient Calculations of 3-D FFTs on Spiral Contours. Journal of Scientific Computing, 2012, 50, 610-628.	1.1	1
69	Passive ultrasonics using sub-Nyquist sampling of high-frequency thermal-mechanical noise. Journal of the Acoustical Society of America, 2014, 135, EL364-EL370.	0.5	1
70	Convex cardinal shape composition and object recognition in computer vision. , 2015, , .		1
71	Second-Order Filtering Algorithm for Streaming Optimization Problems. , 2019, , .		1
72	Compressive Sampling of Ensembles of Correlated Signals. IEEE Transactions on Information Theory, 2020, 66, 1078-1098.	1.5	1

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73	Trading Beams for Bandwidth: Imaging with Randomized Beamforming. SIAM Journal on Imaging Sciences, 2020, 13, 317-350.	1.3	1
74	Sequencing of multi-robot behaviors using reinforcement learning. Control Theory and Technology, 2021, 19, 529-537.	1.0	1
75	Capturing light field textures for video coding. , 2008, , .		0
76	Iterative soft-thresholding for time-varying signal recovery. , 2014, , .		0
77	Sampling and reconstruction in the 21st century. , 2017, , .		0
78	Algebraic Connectivity Under Site Percolation in Finite Weighted Graphs. IEEE Transactions on Network Science and Engineering, 2018, 5, 86-91.	4.1	0
79	A Hardware Realization of Superresolution Combining Random Coding and Blurring. IEEE Transactions on Computational Imaging, 2019, 5, 366-380.	2.6	0
80	Blind deconvolution of sources of opportunity in ocean waveguides using bilinear channel models. Journal of the Acoustical Society of America, 2020, 148, 2267-2279.	0.5	0