Kannan Ramchandran

List of Publications by Citations

76 papers	3,073 citations	22 h-index	55 g-index
82 ext. papers	3,869 ext. citations	4.7 avg, IF	5.4 L-index

#	Paper	IF	Citations
76	Network Coding for Distributed Storage Systems. *IEEE Transactions on Information Theory*, **2010**, 56, 4539-4551	2.8	1025
75	Multiplexed coded illumination for Fourier Ptychography with an LED array microscope. *Biomedical Optics Express*, **2014**, 5, 2376-89	3.5	290
74	PRISM: A video coding paradigm with motion estimation at the decoder. *IEEE Transactions on Image Processing*, **2007**, 16, 2436-48	8.7	175
73	Distributed Storage Codes With Repair-by-Transfer and Nonachievability of Interior Points on the Storage-Bandwidth Tradeoff. *IEEE Transactions on Information Theory*, **2012**, 58, 1837-1852	2.8	152
72	. *IEEE Transactions on Information Theory*, **2013**, 59, 2974-2987	2.8	117
71	. *IEEE Transactions on Information Theory*, **2011**, 57, 1425-1442	2.8	110
70	Securing Dynamic Distributed Storage Systems Against Eavesdropping and Adversarial Attacks. *IEEE Transactions on Information Theory*, **2011**, 57, 6734-6753	2.8	108
69	Information-Theoretic Limits on Sparse Signal Recovery: Dense versus Sparse Measurement Matrices. *IEEE Transactions on Information Theory*, **2010**, 56, 2967-2979	2.8	88
68	Fractional repetition codes for repair in distributed storage systems **2010**,		84
67	. *IEEE Journal on Selected Topics in Signal Processing*, **2007**, 1, 618-632	7.5	65
66	When Do Redundant Requests Reduce Latency?. *IEEE Transactions on Communications*, **2016**, 64, 715-722	3.9	60
65	High-Speed Action Recognition and Localization in Compressed Domain Videos. *IEEE Transactions on Circuits and Systems for Video Technology*, **2008**, 18, 1006-1015	6.4	43
64	Distributed Sparse Random Projections for Refinable Approximation **2007**,		42
63	DRESS codes for the storage cloud: Simple randomized constructions **2011**,		40
62	. *IEEE Transactions on Information Forensics and Security*, **2008**, 3, 749-762	8	39
61	Deterministic algorithm for the cooperative data exchange problem **2011**,		33
60	Hybrid Digital-Analog Codes for Source-Channel Broadcast of Gaussian Sources Over Gaussian Channels. *IEEE Transactions on Information Theory*, **2011**, 57, 4573-4588	2.8	31

59	Secrecy via Sources and Channels. *IEEE Transactions on Information Theory*, **2012**, 58, 6747-6765	2.8	28
58	. *IEEE Transactions on Information Theory*, **2017**, 63, 3663-3691	2.8	25
57	Perturbed Iterate Analysis for Asynchronous Stochastic Optimization. *SIAM Journal on Optimization* , **2017**, 27, 2202-2229	2	23
56	Efficient file synchronization: A distributed source coding approach **2011**,		23
55	High-Resolution Distributed Sampling of Bandlimited Fields With Low-Precision Sensors. *IEEE Transactions on Information Theory*, **2011**, 57, 476-492	2.8	22
54	Total System Energy Minimization for Wireless Image Transmission. *Journal of Signal Processing Systems*, **2001**, 27, 99-117		21
53	. *IEEE Journal on Selected Topics in Signal Processing*, **2015**, 9, 1229-1239	7.5	20
52	Cognitive Radio Through Primary Control Feedback. *IEEE Journal on Selected Areas in Communications*, **2011**, 29, 384-393	14.2	17
51	SAFFRON: A fast, efficient, and robust framework for group testing based on sparse-graph codes **2016**,		17
50	Spline-Like Wavelet Filterbanks for Multiresolution Analysis of Graph-Structured Data. *IEEE Transactions on Signal and Information Processing Over Networks*, **2015**, 1, 268-278	2.8	16
49	Interactive low-complexity codes for synchronization from deletions and insertions **2010**,		16
48	Multi-Antenna Interference Cancellation Techniques for Cognitive Radio Applications **2009**,		16
47	. *IEEE Transactions on Information Theory*, **2017**, 63, 6679-6713	2.8	15
46	. *IEEE Signal Processing Magazine*, **2013**, 30, 53-61	9.4	15
45	A Graph-Based Framework for Transmission of Correlated Sources Over Multiple-Access Channels. *IEEE Transactions on Information Theory*, **2007**, 53, 4583-4604	2.8	15
44	Unequal Growth Codes: Intermediate Performance and Unequal Error Protection for Video Streaming **2007**,		15
43	Low-Complexity Interactive Algorithms for Synchronization From Deletions, Insertions, and Substitutions. *IEEE Transactions on Information Theory*, **2015**, 61, 5670-5689	2.8	14
42	Achievable Rates for Channels With Deletions and Insertions. *IEEE Transactions on Information Theory*, **2013**, 59, 6990-7013	2.8	14

41	PhaseCode: Fast and efficient compressive phase retrieval based on sparse-graph codes **2014**,		14
40	Efficient Algorithms for the Data Exchange Problem. *IEEE Transactions on Information Theory*, **2016**, 62, 1878-1896	2.8	13
39	Gradient Coding Based on Block Designs for Mitigating Adversarial Stragglers **2019**,		13
38	Optimal DNA shotgun sequencing: Noisy reads are as good as noiseless reads **2013**,		13
37	Colored Gaussian Source□Channel Broadcast for Heterogeneous (Analog/Digital) Receivers. *IEEE Transactions on Information Theory*, **2008**, 54, 1807-1814	2.8	11
36	A distributed and adaptive signal processing approach to exploiting correlation in sensor networks. *Ad Hoc Networks*, **2004**, 2, 387-403	4.8	11
35	Towards a theory for video coding using distributed compression principles		11
34	Securing dynamic distributed storage systems from malicious nodes **2011**,		10
33	View Synthesis for Robust Distributed Video Compression in Wireless Camera Networks **2007**,		10
32	. *IEEE Signal Processing Magazine*, **2013**, 30, 95-106	9.4	9
31	A compression algorithm using mis-aligned side-information **2012**,		9
30	Coding of Image Feature Descriptors for Distributed Rate-efficient Visual Correspondences. *International Journal of Computer Vision*, **2011**, 94, 267-281	10.6	9
29	. *IEEE Transactions on Information Theory*, **2019**, 65, 6580-6619	2.8	8
28	On scheduling redundant requests with cancellation overheads **2015**,		8
27	Syndrome-Based Robust Video Transmission Over Networks with Bursty Losses **2006**,		8
26	SAFFRON: A Fast, Efficient, and Robust Framework for Group Testing Based on Sparse-Graph Codes. *IEEE Transactions on Signal Processing*, **2019**, 67, 4649-4664	4.8	7
25	Dithered A/D Conversion of Smooth Non-Bandlimited Signals. *IEEE Transactions on Signal Processing*, **2010**, 58, 2654-2666	4.8	7
24	Distributed Secret Dissemination Across a Network. *IEEE Journal on Selected Topics in Signal Processing*, **2015**, 9, 1206-1216	7.5	6

23	On decoder-latency versus performance tradeoffs in differential predictive coding		6
22	On multivariate estimation by thresholding		5
21	Communication-Efficient Gradient Coding for Straggler Mitigation in Distributed Learning **2020**,		5
20	CRISPRL and: Interpretable large-scale inference of DNA repair landscape based on a spectral approach. *Bioinformatics*, **2020**, 36, i560-i568	7.2	5
19	Epistatic Net allows the sparse spectral regularization of deep neural networks for inferring fitness functions. *Nature Communications*, **2021**, 12, 5225	17.4	5
18	A Fast and Robust Paradigm for Fourier Compressed Sensing Based on Coded Sampling **2019**,		4
17	Fast sparse 2-D DFT computation using sparse-graph alias codes **2016**,		4
16	Asynchronous and noncoherent neighbor discovery for the IoT using sparse-graph codes **2017**,		4
15	Sparse covariance estimation based on sparse-graph codes **2015**,		3
14	Robust wireless video multicast based on a distributed source coding approach. *Signal Processing*, **2006**, 86, 3196-3211	4.4	3
13	Compressed sensing using sparse-graph codes for the continuous-alphabet setting **2016**,		3
12	A Real-Time, 1.89-GHz Bandwidth, 175-kHz Resolution Sparse Spectral Analysis RISC-V SoC in 16-nm FinFET. *IEEE Journal of Solid-State Circuits*, **2019**, 54, 1993-2008	5.5	2
11	Metadata-Conscious Anonymous Messaging. *IEEE Transactions on Signal and Information Processing Over Networks*, **2016**, 1-1	2.8	2
10	Robust video transmission with distributed source coded auxiliary channel. *IEEE Transactions on Image Processing*, **2009**, 18, 2695-705	8.7	2
9	Rumor Source Obfuscation on Irregular Trees. *Performance Evaluation Review*, **2016**, 44, 153-164	0.4	2
8	A Real-Time, Analog/Digital Co-Designed 1.89-GHz Bandwidth, 175-kHz Resolution Sparse Spectral Analysis RISC-V SoC in 16-nm FinFET **2018**,		2
7	Capacity-approaching PhaseCode for low-complexity compressive phase retrieval **2015**,		1
6	Unsupervised Discovery of Action Hierarchies in Large Collections of Activity Videos **2007**,		1

5	Coding for sensor networks using untuned radios		1
4	Low-degree Pseudo-Boolean Function Recovery Using Codes **2019**,		1
3	Communication-Efficient and Byzantine-Robust Distributed Learning With Error Feedback. *IEEE Journal on Selected Areas in Information Theory*, **2021**, 2, 942-953	2.5	1
2	Adaptive Douglas--Rachford Splitting Algorithm from a Yosida Approximation Standpoint. *SIAM Journal on Optimization*, **2021**, 31, 1971-1998	2	0
1	Correction to "On Functional Duality in Multiuser Source and Channel Coding Problems Having One-Sided Collaboration"[Jul 06 2986-3002]. *IEEE Transactions on Information Theory*, **2010**, 56, 4763-4763	2.8	