Krishna R Narayanan

List of Publications by Year
in descending order

83 papers	1,629 citations	687363 13 h-index	552781 26 g-index
84 all docs	84 docs citations	84 times ranked	844 citing authors

#	Article	IF	Citations
1	Unsourced Random Access With Coded Compressed Sensing: Integrating AMP and Belief Propagation. IEEE Transactions on Information Theory, 2022, 68, 2384-2409.	2.4	29
2	An Enhanced Decoding Algorithm for Coded Compressed Sensing with Applications to Unsourced Random Access. Sensors, 2022, 22, 676.	3.8	7
3	Coded Demixing for Unsourced Random Access. IEEE Transactions on Signal Processing, 2022, 70, 2972-2984.	5.3	9
4	Sparse IDMA: A Joint Graph-Based Coding Scheme for Unsourced Random Access. IEEE Transactions on Communications, 2022, 70, 7124-7133.	7.8	8
5	LDPC Codes with Soft Interference Cancellation for Uncoordinated Unsourced Multiple Access. , 2021, , .		19
6	A Hybrid Approach to Coded Compressed Sensing Where Coupling Takes Place Via the Outer Code. , 2021, , .		5
7	Approximate Support Recovery using Codes for Unsourced Multiple Access. , 2021, , .		6
8	Errors and Erasures Decoding of Product Codes for Optical Transport Networks. IEEE Communications Letters, 2021, 25, 2482-2486.	4.1	4
9	Factored LT and Factored Raptor Codes for Large-Scale Distributed Matrix Multiplication. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 893-906.	2.5	13
10	Stochastic Binning and Coded Demixing for Unsourced Random Access. , 2021, , .		5
11	Factored LT and Factored Raptor Codes for Large-Scale Distributed Matrix Multiplication. , 2020, , .		2
12	On Approximate Message Passing for Unsourced Access with Coded Compressed Sensing. , 2020, , .		20
13	An Enhanced Decoding Algorithm for Coded Compressed Sensing. , 2020, , .		11
14	Polar Coding and Random Spreading for Unsourced Multiple Access. , 2020, , .		54
15	A Coded Compressed Sensing Scheme for Unsourced Multiple Access. IEEE Transactions on Information Theory, 2020, 66, 6509-6533.	2.4	98
16	Asynchronous Neighbor Discovery Using Coupled Compressive Sensing. , 2019, , .		21
17	A User-Independent Successive Interference Cancellation Based Coding Scheme for the Unsourced Random Access Gaussian Channel. IEEE Transactions on Communications, 2019, 67, 8258-8272.	7.8	49
18	Non-adaptive Quantitative Group Testing Using Irregular Sparse Graph Codes. , 2019, , .		12

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19	Sparse Graph Codes for Non-adaptive Quantitative Group Testing. , 2019, , .		7
20	Piecewise Stationary Modeling of Random Processes Over Graphs With an Application to Traffic Prediction. , 2019, , .		5
21	Collaborative Decoding of Polynomial Codes for Distributed Computation. , 2019, , .		11
22	Random Khatri-Rao-Product Codes for Numerically-Stable Distributed Matrix Multiplication. , 2019, , .		32
23	A Joint Graph Based Coding Scheme for the Unsourced Random Access Gaussian Channel. , 2019, , .		44
24	Evaluation of Interference-Cancellation Based MAC Protocol for Vehicular Communications. , 2018, , .		0
25	A Coupled Compressive Sensing Scheme for Unsourced Multiple Access. , 2018, , .		35
26	Symmetric Block-wise Concatenated BCH Codes for NAND Flash Memories. IEEE Transactions on Communications, 2018, , 1-1.	7.8	9
27	Lattices Over Algebraic Integers With an Application to Compute-and-Forward. IEEE Transactions on Information Theory, 2018, 64, 6863-6877.	2.4	15
28	Approaching Capacity at High Rates with Iterative Hard-Decision Decoding. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	27
29	Construction ï€A and ï€D Lattices: Construction, Goodness, and Decoding Algorithms. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	3
30	A user-independent serial interference cancellation based coding scheme for the unsourced random access Gaussian channel. , 2017, , .		60
31	Stopping set elimination for LDPC codes. , 2017, , .		3
32	Joint Source-Channel Decoding of Polar Codes for Language-Based Sources. , 2016, , .		17
33	On the design of universal schemes for massive uncoordinated multiple access. , 2016, , .		8
34	Coding for Parallel Gaussian Bidirectional Relay Channels: A Deterministic Approach. IEEE Transactions on Information Theory, 2016, 62, 260-271.	2.4	0
35	Interleaved Concatenations of Polar Codes With BCH and Convolutional Codes. IEEE Journal on Selected Areas in Communications, 2016, 34, 267-277.	14.0	41
36	Random Forests Are Able to Identify Differences in Clotting Dynamics from Kinetic Models of Thrombin Generation. PLoS ONE, 2016, 11, e0153776.	2.5	5

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37	Adaptive compute-and-forward with lattice codes over algebraic integers. , 2015, , .		9
38	On decoding algorithms for construction π<inf>A</inf> lattices. , 2015, , .		1
39	Spatially-coupled codes for write-once memories. , 2015, , .		4
40	Uncoordinated rate selection: Approaching the capacity of Gaussian MAC without coordination. , 2015, , .		1
41	Symmetric product codes. , 2015, , .		16
42	Lattices Over Eisenstein Integers for Compute-and-Forward. IEEE Transactions on Information Theory, 2015, 61, 5306-5321.	2.4	32
43	Concatenations of polar codes with outer BCH codes and convolutional codes. , 2014, , .		17
44	An introduction to spatially-coupled codes via practical examples. , 2014, , .		1
45	Asynchronous compute-and-forward/integer-Forcing with quasi-cyclic codes. , 2014, , .		3
46	Spatially-coupled codes for side-information problems. , 2014, , .		5
47	Multilevel lattices based on spatially-coupled LDPC codes with applications. , 2014, , .		10
48	Lattices from codes for harnessing interference: An overview and generalizations. , 2014, , .		6
49	An analysis of the joint compute-and-forward decoder for the binary-input two-way relay channel. , 2013, , .		4
50	Code Design for the Noisy Slepian-Wolf Problem. IEEE Transactions on Communications, 2013, 61, 2535-2545.	7.8	6
51	Multilevel Coding Schemes for Compute-and-Forward With Flexible Decoding. IEEE Transactions on Information Theory, 2013, 59, 7613-7631.	2.4	26
52	A Compute-and-Forward Scheme for Gaussian Bi-Directional Relaying with Inter-Symbol Interference. IEEE Transactions on Communications, 2013, 61, 1011-1019.	7.8	5
53	Spatially-coupled low density lattices based on construction a with applications to compute-and-forward. , 2013, , .		13
54	Code-Rate Selection, Queueing Behavior, and the Correlated Erasure Channel. IEEE Transactions on Information Theory, 2013, 59, 397-407.	2.4	12

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55	Iterative hard-decision decoding of braided BCH codes for high-speed optical communication. , 2013, , .		24
56	Approaching capacity at high rates with iterative hard-decision decoding. , 2012, , .		31
57	Joint compute and forward for the two way relay channel with spatially coupled LDPC codes. , 2012, , .		5
58	On modulo-sum computation over an erasure multiple access channel. , 2012, , .		3
59	Threshold saturation of spatially-coupled codes on intersymbol-interference channels. , 2012, , .		16
60	Lattices over Eisenstein integers for compute-and-forward. , 2012, , .		28
61	Iterative collision resolution for slotted ALOHA: An optimal uncoordinated transmission policy. , 2012, , .		79
62	On the maximum a posteriori decoding thresholds of multiuser systems with erasures. , 2012, , .		2
63	Joint Source-Channel Coding with Correlated Interference. IEEE Transactions on Communications, 2012, 60, 1315-1327.	7.8	11
64	Coding for parallel Gaussian bi-directional relay channels: A deterministic approach. , 2011, , .		6
65	Universality for the noisy Slepian-Wolf problem via spatial coupling. , 2011, , .		16
66	Concatenated Signal Codes with Applications to Compute and Forward. , 2011, , .		7
67	On Multiple Decoding Attempts for Reedâ€“Solomon Codes: A Rate-Distortion Approach. IEEE Transactions on Information Theory, 2011, 57, 668-691.	2.4	7
68	Universal codes for the Gaussian MAC via spatial coupling. , 2011, , .		50
69	On the Exchange Rate for Bi-Directional Relaying over Inter-Symbol Interference Channels. , 2011, , .		2
70	Joint source-channel coding with correlated interference. , 2011, , .		10
71	A Note on the Rate of Decay of Mean-Squared Error With SNR for the AWGN Channel. IEEE Transactions on Information Theory, 2010, 56, 332-335.	2.4	5
72	Joint Physical Layer Coding and Network Coding for Bidirectional Relaying. IEEE Transactions on Information Theory, 2010, 56, 5641-5654.	2.4	297

#	Article	IF	Citations
73	On the queueing behavior of random codes over a gilbert-elliot erasure channel. , 2010, , .		4
74	LDPC code design for transmission of correlated sources across noisy channels without CSIT. , 2010, , .		5
75	A rate-distortion exponent approach to multiple decoding attempts for Reed-Solomon codes. , 2010, , .		0
76	Code rate, queueing behavior and the correlated erasure channel. , 2010, , .		3
77	Can iterative decoding for erasure correlated sources be universal?. , 2009, , .		9
78	A rate-distortion perspective on multiple decoding attempts for Reed-Solomon codes. , 2009, , .		2
79	On the Distortion SNR Exponent of Some Layered Transmission Schemes. IEEE Transactions on Information Theory, 2008, 54, 2943-2958.	2.4	39
80	Algebraic Soft-Decision Decoding of Reed–Solomon Codes Using Bit-Level Soft Information. IEEE Transactions on Information Theory, 2008, 54, 3907-3928.	2.4	59
81	Tradeoff Between Diversity and Decodable-Rate: Diversity Multiplexing Tradeoff for Fixed Encoding Schemes. , 2007, , .		1
82	An MSE-Based Transfer Chart for Analyzing Iterative Decoding Schemes Using a Gaussian Approximation. IEEE Transactions on Information Theory, 2007, 53, 22-38.	2.4	33
83	Multilevel Coding for Channels with Non-uniform Inputs and Rateless Transmission over the BSC. , 2006, , .		10