Michael C Gastpar

List of Publications by Year
in descending order

112	3,666	331259	149479
		21	56
papers	citations	h-index	g-index

112	112	112	2032
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Gray-Wyner Network and Wyner's Common Information for Gaussian Sources. IEEE Transactions on Information Theory, 2022, 68, 1369-1384.	1.5	5
2	Private Retrieval, Computing, and Learning: Recent Progress and Future Challenges. IEEE Journal on Selected Areas in Communications, 2022, 40, 729-748.	9.7	26
3	Privacy in Retrieval, Computing, and Learning. IEEE Journal on Selected Areas in Communications, 2022, 40, 725-728.	9.7	0
4	The Price of Distributed: Rate Loss in the CEO Problem. , 2022, , .		2
5	Common Information Components Analysis. Entropy, 2021, 23, 151.	1.1	2
6	Learning, compression, and leakage: Minimising classification error via meta-universal compression principles. , 2021, , .		3
7	On conditional Sibson's $alpha$ -Mutual Information. , 2021, , .		1
8	Lower-bounds on the Bayesian Risk in estimation procedures via Sibson's $alpha$-Mutual Information. , 2021, , .		4
9	A Discretization Approach to Compute–Forward. , 2021, , .		2
10	Generalization Error Bounds via Rényi-, f-Divergences and Maximal Leakage. IEEE Transactions on Information Theory, 2021, 67, 4986-5004.	1.5	20
11	On Calculating the Minimum Rate for the Cooperative Data Exchange Problem Over Fully Connected Networks. IEEE Transactions on Communications, 2021, 69, 5817-5827.	4.9	0
12	Differential Entropy of the Conditional Expectation under Gaussian Noise. , 2021, , .		1
13	Lower Bounds on the Expected Excess Risk Using Mutual Information. , 2021, , .		0
14	Successive Refinement to Caching for Dynamic Requests. , 2020, , .		0
15	Single-server Multi-message Private Information Retrieval with Side Information: the General Cases. , 2020, , .		12
16	The Gaussian lossy Gray-Wyner network. , 2020, , .		3
17	Compute-Forward for DMCs: Simultaneous Decoding of Multiple Combinations. IEEE Transactions on Information Theory, 2020, 66, 6242-6255.	1.5	9
18	Robust Generalization via f˜Mutual Information. , 2020, , .		5

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19	Sum-Rate Capacity for Symmetric Gaussian Multiple Access Channels With Feedback. IEEE Transactions on Information Theory, 2020, 66, 2860-2871.	1.5	7
20	Caching (Bivariate) Gaussians. IEEE Transactions on Information Theory, 2020, 66, 6150-6168.	1.5	2
21	Common Information Components Analysis. , 2020, , .		2
22	Communication Versus Computation: Duality for Multiple-Access Channels and Source Coding. IEEE Transactions on Information Theory, 2019, 65, 292-301.	1.5	4
23	The Optimal Memory-Rate Trade-Off for the Non-Uniform Centralized Caching Problem With Two Files Under Uncoded Placement. IEEE Transactions on Information Theory, 2019, 65, 7756-7770.	1.5	8
24	Remote Source Coding Under Gaussian Noise: Dueling Roles of Power and Entropy Power. IEEE Transactions on Information Theory, 2019, 65, 4486-4498.	1.5	12
25	Quantifying high-order interdependencies via multivariate extensions of the mutual information. Physical Review E, 2019, 100, 032305.	0.8	86
26	Relaxed Wyner's Common Information. , 2019, , .		4
27	Successive Refinement to Caching for Dynamic Content. , 2019, , .		1
28	Learning and Adaptive Data Analysis via Maximal Leakage. , 2019, , .		3
29	Towards an Algebraic Network Information Theory: Distributed Lossy Computation of Linear Functions. , 2019, , .		5
30	Compute–Forward Multiple Access (CFMA): Practical Implementations. IEEE Transactions on Communications, 2019, 67, 1133-1147.	4.9	9
31	Single-server Multi-message Private Information Retrieval with Side Information. , 2018, , .		40
32	Computable Bounds on the Exploration Bias. , 2018, , .		9
33	A Joint Typicality Approach to Compute–Forward. IEEE Transactions on Information Theory, 2018, 64, 7657-7685.	1.5	15
34	Gaussian Multiple Access via Compute-and-Forward. IEEE Transactions on Information Theory, 2017, 63, 2678-2695.	1.5	29
35	Information-Theoretic Caching: The Multi-User Case. IEEE Transactions on Information Theory, 2017, 63, 7018-7037.	1.5	21
36	Secure Transmission on the Two-Hop Relay Channel With Scaled Compute-and-Forward. IEEE Transactions on Information Theory, 2017, 63, 7753-7769.	1.5	9

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37	GDSP: A graphical perspective on the distributed storage systems. , 2017, , .		2
38	Polynomially Solvable Instances of the Shortest and Closest Vector Problems With Applications to Compute-and-Forward. IEEE Transactions on Information Theory, 2017, 63, 7780-7792.	1.5	11
39	Typical sumsets of lattice points. , 2016, , .		1
40	Multi-library coded caching. , 2016, , .		3
41	Information-Theoretic Caching: Sequential Coding for Computing. IEEE Transactions on Information Theory, 2016, 62, 6393-6406.	1.5	27
42	A new converse bound for coded caching. , 2016, , .		40
43	Typical sumsets of linear codes. , 2016, , .		2
44	Total correlation of Gaussian vector sources on the Gray-Wyner network. , 2016, , .		8
45	Caching Gaussians: Minimizing total correlation on the Gray-Wyner network. , 2016, , .		10
46	Computation in Multicast Networks: Function Alignment and Converse Theorems. IEEE Transactions on Information Theory, 2016, 62, 1866-1877.	1.5	4
47	Efficient Algorithms for the Data Exchange Problem. IEEE Transactions on Information Theory, 2016, 62, 1878-1896.	1.5	24
48	Random Access With Physical-Layer Network Coding. IEEE Transactions on Information Theory, 2015, 61, 3670-3681.	1.5	29
49	On lattice codes for Gaussian interference channels. , 2015, , .		3
50	Compute-and-forward using nested linear codes for the Gaussian MAC. , 2015, , .		5
51	Coding theorems via linear codes: Joint decoding rate regions. , 2015, , .		4
52	Lattice Codes for Many-to-One Interference Channels With and Without Cognitive Messages. IEEE Transactions on Information Theory, 2015, 61, 1309-1324.	1.5	6
53	Interactive Computation of Type-Threshold Functions in Collocated Gaussian Networks. IEEE Transactions on Information Theory, 2015, 61, 4765-4775.	1.5	5
54	Compute-and-Forward: Finding the best equation. , 2014, , .		21

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55	Gaussian (dirty) multiple access channels: A compute-and-forward perspective. , 2014, , .		5
56	Integer-Forcing Linear Receivers. IEEE Transactions on Information Theory, 2014, 60, 7661-7685.	1.5	131
57	Capacity Scaling of Cognitive Networks: Beyond Interference-Limited Communication. IEEE Transactions on Information Theory, 2014, 60, 7824-7840.	1.5	6
58	Computation Over Gaussian Networks With Orthogonal Components. IEEE Transactions on Information Theory, 2014, 60, 7841-7861.	1.5	20
59	Approximate Ergodic Capacity of a Class of Fading Two-User Two-Hop Networks. IEEE Transactions on Information Theory, 2014, 60, 866-880.	1.5	10
60	Functional Forwarding of Channel State Information. IEEE Transactions on Information Theory, 2014, 60, 1008-1018.	1.5	2
61	Coding Schemes and Asymptotic Capacity for the Gaussian Broadcast and Interference Channels With Feedback. IEEE Transactions on Information Theory, 2014, 60, 54-71.	1.5	16
62	Maximum Throughput Gain of Compute-and-Forward for Multiple Unicast. IEEE Communications Letters, 2014, 18, 1111-1114.	2.5	7
63	Lattice codes for many-to-one cognitive interference networks. , 2013, , .		1
64	Feedback Communication and Control Over a Single Channel. IEEE Transactions on Information Theory, 2013, 59, 6243-6257.	1.5	1
65	Linear Function Computation in Networks: Duality and Constant Gap Results. IEEE Journal on Selected Areas in Communications, 2013, 31, 620-638.	9.7	14
66	Approximate Sparsity Pattern Recovery: Information-Theoretic Lower Bounds. IEEE Transactions on Information Theory, 2013, 59, 3451-3465.	1.5	54
67	Function Identification in Neuron Populations via Information Bottleneck. Entropy, 2013, 15, 1587-1608.	1.1	10
68	Computation over Gaussian networks with orthogonal components. , 2013, , .		3
69	Capacity scaling of cognitive networks: Beyond interference-limited communication. , 2013, , .		4
70	Multi-round computation of type-threshold functions in collocated Gaussian networks. , 2013, , .		3
71	Selective and Efficient Neural Coding of Communication Signals Depends on Early Acoustic and Social Environment. PLoS ONE, 2013, 8, e61417.	1.1	23
72	A Survey on Interference Networks: Interference Alignment and Neutralization. Entropy, 2012, 14, 1842-1863.	1.1	28

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73	Real-time prediction of fast and slow delivery of mental commands in a motor imagery BCI: An entropy-based approach. , 2012, , .		4
74	Approximate feedback capacity of the Gaussian multicast channel. , 2012, , .		6
75	Approximate ergodic capacity of a class of fading 2 × 2 × 2 Networks. , 2012, , .		1
76	Reduced-Dimension Linear Transform Coding of Correlated Signals in Networks. IEEE Transactions on Signal Processing, 2012, 60, 3174-3187.	3.2	9
77	Ergodic Interference Alignment. IEEE Transactions on Information Theory, 2012, 58, 6355-6371.	1.5	105
78	Network coding with computation alignment. , 2012, , .		4
79	Approximate ergodic capacity of a class of fading 2-user 2-hop networks. , 2012, , .		6
80	Redundant information encoding in primary motor cortex during natural and prosthetic motor control. Journal of Computational Neuroscience, 2012, 32, 555-561.	0.6	21
81	List-Decoding for the Arbitrarily Varying Channel Under State Constraints. IEEE Transactions on Information Theory, 2012, 58, 1372-1384.	1.5	15
82	The Sampling Rate-Distortion Tradeoff for Sparsity Pattern Recovery in Compressed Sensing. IEEE Transactions on Information Theory, 2012, 58, 3065-3092.	1.5	77
83	Redundant information encoding in primary motor cortex during motor tasks. , 2011, , .		0
84	Deterministic algorithm for the cooperative data exchange problem. , 2011, , .		39
85	On the role of diversity in sparsity estimation. , 2011, , .		0
86	A compressed sensing wire-tap channel. , 2011, , .		20
87	Cognitive Radio Through Primary Control Feedback. IEEE Journal on Selected Areas in Communications, 2011, 29, 384-393.	9.7	24
88	Local Interference Can Accelerate Gossip Algorithms. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 876-887.	7.3	23
89	Introduction to the Issue on Gossiping Algorithms Design and Applications. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 645-648.	7.3	6
90	Line and Lattice Networks Under Deterministic Interference Models. IEEE Transactions on Information Theory, 2011, 57, 3080-3099.	1.5	6

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91	Compute-and-Forward: Harnessing Interference Through Structured Codes. IEEE Transactions on Information Theory, 2011, 57, 6463-6486.	1.5	828
92	Anthropic Correction of Information Estimates and Its Application to Neural Coding. IEEE Transactions on Information Theory, 2010, 56, 890-900.	1.5	6
93	Rateless Codes for AVC Models. IEEE Transactions on Information Theory, 2010, 56, 3105-3114.	1.5	14
94	On the Broadcast Capacity of Wireless Networks With Cooperative Relays. IEEE Transactions on Information Theory, 2010, 56, 3847-3861.	1.5	37
95	Recursive Implementation of the Distributed Karhunen-Loève Transform. IEEE Transactions on Signal Processing, 2010, 58, 5320-5330.	3.2	23
96	A little feedback can simplify sensor network cooperation. IEEE Journal on Selected Areas in Communications, 2010, 28, 1159-1168.	9.7	3
97	Some observations on limited feedback for multiaccess channels. , 2009, , .		6
98	The case for structured random codes in network capacity theorems. European Transactions on Telecommunications, 2008, 19, 455-474.	1.2	57
99	Uncoded Transmission Is Exactly Optimal for a Simple Gaussian "Sensor" Network. IEEE Transactions on Information Theory, 2008, 54, 5247-5251.	1.5	235
100	Sampling bounds for sparse support recovery in the presence of noise. , 2008, , .		59
101	Arbitrarily dirty paper coding and applications. , 2008, , .		7
102	Achievable rates for conferencing multiway channels. , 2008, , .		13
103	Using zero-rate feedback on binary additive channels with individual noise sequences. , 2007, , .		9
104	Channels with nosy "noise". , 2007, , .		8
105	Computation over Gaussian Multiple-Access Channels. , 2007, , .		10
106	On Capacity Under Receive and Spatial Spectrum-Sharing Constraints. IEEE Transactions on Information Theory, 2007, 53, 471-487.	1.5	366
107	Computation Over Multiple-Access Channels. IEEE Transactions on Information Theory, 2007, 53, 3498-3516.	1.5	494
108	Introduction to the Special Issue on Models, Theory, and Codes for Relaying and Cooperation in Communication Networks [Guest Editorial]. IEEE Transactions on Information Theory, 2007, 53, 3297-3301.	1.5	19

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109	The Distributed Karhunenâ€"LoÃ¨ve Transform. IEEE Transactions on Information Theory, 2006, 52, 5177-5196.	1.5	148
110	Achievable Error Exponents in Multiterminal Source Coding. , 2006, , .		4
111	Computing over Multiple-Access Channels with Connections to Wireless Network Coding. , 2006, , .		47
112	Information-Theoretic Bounds on Sensor Network Performance. , 0, , 7-41.		3