Yingbin Liang

List of Publications by Year
in descending order

77 papers	3,312 citations	331259 21 h-index	174990 52 g-index
77 all docs	77 docs citations	77 times ranked	1988 citing authors

#	Article	IF	Citations
1	Understanding generalization error of SGD in nonconvex optimization. Machine Learning, 2022, 111, 345-375.	3.4	2
2	Self-Secure Capacity-Achieving Feedback Schemes of Gaussian Multiple-Access Wiretap Channels With Degraded Message Sets. IEEE Transactions on Information Forensics and Security, 2022, 17, 1583-1596.	4.5	3
3	When will gradient methods converge to max€margin classifier under ReLU models?. Stat, 2021, 10, e354.	0.3	2
4	Understanding Estimation and Generalization Error of Generative Adversarial Networks. IEEE Transactions on Information Theory, 2021, 67, 3114-3129.	1.5	3
5	MR-GAN: Manifold Regularized Generative Adversarial Networks for Scientific Data. SIAM Journal on Mathematics of Data Science, 2021, 3, 1197-1222.	1.0	1
6	Non-convex low-rank matrix recovery with arbitrary outliers via median-truncated gradient descent. Information and Inference, 2020, 9, 289-325.	0.9	17
7	Robust Dynamic Spectrum Access in Adversarial Environments. , 2020, , .		1
8	Guaranteed Recovery of One-Hidden-Layer Neural Networks via Cross Entropy. IEEE Transactions on Signal Processing, 2020, 68, 3225-3235.	3.2	10
9	Impact of Action-Dependent State and Channel Feedback on Gaussian Wiretap Channels. IEEE Transactions on Information Theory, 2020, 66, 3435-3455.	1.5	14
10	Robust Stochastic Bandit Algorithms under Probabilistic Unbounded Adversarial Attack. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 4036-4043.	3.6	8
11	The Dirty Paper Wiretap Feedback Channel with or without Action on the State. , 2019, , .		1
12	Secrecy Capacity of Colored Gaussian Noise Channels With Feedback. IEEE Transactions on Information Theory, 2019, 65, 5771-5782.	1.5	17
13	MIMO Gaussian State-Dependent Channels with a State-Cognitive Helper. Entropy, 2019, 21, 273.	1.1	1
14	K-Medoids Clustering of Data Sequences With Composite Distributions. IEEE Transactions on Signal Processing, 2019, 67, 2093-2106.	3.2	29
15	A simple convergence analysis of Bregman proximal gradient algorithm. Computational Optimization and Applications, 2019, 73, 903-912.	0.9	1
16	State-Dependent Interference Channel With Correlated States. IEEE Transactions on Information Theory, 2019, 65, 4518-4531.	1.5	0
17	Estimation of KL Divergence: Optimal Minimax Rate. IEEE Transactions on Information Theory, 2018, 64, 2648-2674.	1.5	38
18	Degraded Broadcast Channel With Secrecy Outside a Bounded Range. IEEE Transactions on Information Theory, 2018, 64, 2104-2120.	1.5	5

#	Article	IF	Citations
19	Data-Driven Nonparametric Existence and Association Problems. IEEE Transactions on Signal Processing, 2018, 66, 6377-6389.	3.2	0
20	Data-Driven Nonparametric Hypothesis Testing. , 2018, , .		0
21	Parallel Gaussian Channels Corrupted by Independent States With a State-Cognitive Helper. , 2018, , .		1
22	Median-Truncated Nonconvex Approach for Phase Retrieval With Outliers. IEEE Transactions on Information Theory, 2018, 64, 7287-7310.	1.5	27
23	State-Dependent Gaussian Multiple Access Channels: New Outer Bounds and Capacity Results. IEEE Transactions on Information Theory, 2018, 64, 7866-7882.	1.5	6
24	Multi-Key Generation Over a Cellular Model With a Helper. IEEE Transactions on Information Theory, 2017, 63, 3804-3822.	1.5	10
25	On the Sum-Rate Capacity of Poisson MISO Multiple Access Channels. IEEE Transactions on Information Theory, 2017, 63, 6457-6473.	1.5	2
26	Nonparametric Detection of Geometric Structures Over Networks. IEEE Transactions on Signal Processing, 2017, 65, 5034-5046.	3.2	12
27	Nonparametric Detection of Anomalous Data Streams. IEEE Transactions on Signal Processing, 2017, 65, 5785-5797.	3.2	18
28	Outer bounds for Gaussian multiple access channels with state known at one encoder. , 2017, , .		0
29	Gaussian fading channel with secrecy outside a bounded range. , 2017, , .		1
30	On Compressive orthonormal Sensing. , 2016, , .		4
31	K-user degraded broadcast channel with secrecy outside a bounded range. , 2016, , .		1
32	Capacity Characterization for State-Dependent Gaussian Channel With a Helper. IEEE Transactions on Information Theory, 2016, 62, 7123-7134.	1.5	5
33	Geometrical properties and accelerated gradient solvers of non-convex phase retrieval. , 2016, , .		6
34	Nonparametric Decentralized Detection and Sparse Sensor Selection Via Weighted Kernel. IEEE Transactions on Signal Processing, 2016, 64, 306-321.	3.2	6
35	Rate splitting and sharing for degraded broadcast channel with secrecy outside a bounded range. , 2015, , .		8
36	An Information Theoretic Approach to Secret Sharing. IEEE Transactions on Information Theory, 2015, 61, 3121-3136.	1.5	29

#	Article	IF	Citations
37	State-dependent Gaussian Z-interference channel: Capacity results. , 2015, , .		1
38	Degraded broadcast channel: Secrecy outside of a bounded range. , 2015, , .		6
39	Bounds and Capacity Theorems for Cognitive Interference Channels With State. IEEE Transactions on Information Theory, 2015, 61, 280-304.	1.5	17
40	Broadcast Networks With Layered Decoding and Layered Secrecy: Theory and Applications. Proceedings of the IEEE, 2015, 103, 1841-1856.	16.4	16
41	Optimal Power Allocation for Poisson Channels With Time-Varying Background Light. IEEE Transactions on Communications, 2015, 63, 4327-4338.	4.9	7
42	State-Dependent Parallel Gaussian Networks With a Common State-Cognitive Helper. IEEE Transactions on Information Theory, 2015, 61, 6680-6699.	1.5	7
43	On the Capacity Bounds for Poisson Interference Channels. IEEE Transactions on Information Theory, 2015, 61, 223-238.	1.5	20
44	Unsupervised nonparametric anomaly detection: A kernel method. , 2014, , .		4
45	Sparse sensor selection for nonparametric decentralized detection via L$_1$ regularization. , 2014, , .		1
46	A Broadcast Approach for Fading Wiretap Channels. IEEE Transactions on Information Theory, 2014, 60, 842-858.	1.5	34
47	The Capacity Region of the Source-Type Model for Secret Key and Private Key Generation. IEEE Transactions on Information Theory, 2014, 60, 6389-6398.	1.5	20
48	On the capacity region of Gaussian interference channels with state. , 2013, , .		9
49	Gaussian cognitive interference channels with state. , 2012, , .		5
50	Cooperative Key Generation in Wireless Networks. IEEE Journal on Selected Areas in Communications, 2012, 30, 1578-1588.	9.7	77
51	Special issue on physical-layer security. Journal of Communications and Networks, 2012, 14, 349-351.	1.8	13
52	Nonparametric decentralized detection based on weighted count kernel. , 2012, , .		0
53	A Unified Framework for Key Agreement Over Wireless Fading Channels. IEEE Transactions on Information Forensics and Security, 2012, 7, 480-490.	4.5	84
54	PHY-based cooperative key generation in wireless networks. , 2011, , .		13

#	Article	IF	Citations
55	Capacity bounds for a class of cognitive interference channels with state. , 2011, , .		4
56	Distributed Cognitive Radio Network Management via Algorithms in Probabilistic Graphical Models. IEEE Journal on Selected Areas in Communications, 2011, 29, 338-348.	9.7	14
57	Secure Communications Over Wireless Broadcast Networks: Stability and Utility Maximization. IEEE Transactions on Information Forensics and Security, 2011, 6, 682-692.	4.5	32
58	On the Equivalence of Two Achievable Regions for the Broadcast Channel. IEEE Transactions on Information Theory, 2011, 57, 95-100.	1.5	14
59	Fading Multiple Access Relay Channels: Achievable Rates and Opportunistic Scheduling. IEEE Transactions on Information Theory, 2011, 57, 1911-1931.	1.5	15
60	Fading Cognitive Multiple-Access Channels With Confidential Messages. IEEE Transactions on Information Theory, 2011, 57, 4992-5005.	1.5	21
61	Secrecy Throughput of MANETs Under Passive and Active Attacks. IEEE Transactions on Information Theory, 2011, 57, 6692-6702.	1.5	32
62	Secret sharing via noisy broadcast channels. , 2011, , .		5
63	Nonparametric decision making based on tree-structured information aggregation. , 2011, , .		2
64	Multiple-Input Multiple-Output Gaussian Broadcast Channels With Common and Confidential Messages. IEEE Transactions on Information Theory, 2010, 56, 5477-5487.	1.5	73
65	Key agreement over wireless fading channels with an active attacker. , 2010, , .		9
66	Optimality of Beamforming for MIMO Multiple Access Channels Via Virtual Representation. IEEE Transactions on Signal Processing, 2010, 58, 5458-5463.	3.2	6
67	On the capacity region of the Poisson interference channels. , 2010, , .		3
68	Capacity of Cognitive Interference Channels With and Without Secrecy. IEEE Transactions on Information Theory, 2009, 55, 604-619.	1.5	143
69	Physical layer security in broadcast networks. Security and Communication Networks, 2009, 2, 227-238.	1.0	27
70	Multiple-Access Channels With Confidential Messages. IEEE Transactions on Information Theory, 2008, 54, 976-1002.	1.5	255
71	Secure Communication Over Fading Channels. IEEE Transactions on Information Theory, 2008, 54, 2470-2492.	1.5	800
72	Information Theoretic Security. Foundations and Trends in Communications and Information Theory, 2007, 5, 355-580.	2.4	458

#	Article	IF	Citations
73	Cooperative Relay Broadcast Channels. IEEE Transactions on Information Theory, 2007, 53, 900-928.	1.5	169
74	Rate Regions for Relay Broadcast Channels. IEEE Transactions on Information Theory, 2007, 53, 3517-3535.	1.5	139
75	Resource Allocation for Wireless Fading Relay Channels: Max-Min Solution. IEEE Transactions on Information Theory, 2007, 53, 3432-3453.	1.5	149
76	Gaussian Orthogonal Relay Channels: Optimal Resource Allocation and Capacity. IEEE Transactions on Information Theory, 2005, 51, 3284-3289.	1.5	204
77	Capacity of Noncoherent Time-Selective Rayleigh-Fading Channels. IEEE Transactions on Information Theory, 2004, 50, 3095-3110.	1.5	115