

Qing Zhao

List of Publications by Year in descending order

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131
papers

4,304
citations

186265

28
h-index

214800

47
g-index

134
all docs

134
docs citations

134
times ranked

2188
citing authors

#	ARTICLE	IF	CITATIONS
1	On the lifetime of wireless sensor networks. IEEE Communications Letters, 2005, 9, 976-978.	4.1	409
2	Joint Design and Separation Principle for Opportunistic Spectrum Access in the Presence of Sensing Errors. IEEE Transactions on Information Theory, 2008, 54, 2053-2071.	2.4	339
3	Optimality of Myopic Sensing in Multichannel Opportunistic Access. IEEE Transactions on Information Theory, 2009, 55, 4040-4050.	2.4	286
4	On myopic sensing for multi-channel opportunistic access: structure, optimality, and performance. IEEE Transactions on Wireless Communications, 2008, 7, 5431-5440.	9.2	282
5	Distributed Learning in Multi-Armed Bandit With Multiple Players. IEEE Transactions on Signal Processing, 2010, 58, 5667-5681.	5.3	266
6	Indexability of Restless Bandit Problems and Optimality of Whittle Index for Dynamic Multichannel Access. IEEE Transactions on Information Theory, 2010, 56, 5547-5567.	2.4	250
7	Sensor networks with mobile agents. , 0, , .		206
8	Decentralized dynamic spectrum access for cognitive radios: cooperative design of a non-cooperative game. IEEE Transactions on Communications, 2009, 57, 459-469.	7.8	156
9	Transmission Scheduling for Optimizing Sensor Network Lifetime: A Stochastic Shortest Path Approach. IEEE Transactions on Signal Processing, 2007, 55, 2294-2309.	5.3	118
10	Dynamic Multichannel Access With Imperfect Channel State Detection. IEEE Transactions on Signal Processing, 2010, 58, 2795-2808.	5.3	96
11	Learning in a Changing World: Restless Multiarmed Bandit With Unknown Dynamics. IEEE Transactions on Information Theory, 2013, 59, 1902-1916.	2.4	95
12	A multiqueue service room MAC protocol for wireless networks with multipacket reception. IEEE/ACM Transactions on Networking, 2003, 11, 125-137.	3.8	94
13	A Dynamic Queue Protocol for Multiaccess Wireless Networks With Multipacket Reception. IEEE Transactions on Wireless Communications, 2004, 3, 2221-2231.	9.2	80
14	Joint order detection and blind channel estimation by least squares smoothing. IEEE Transactions on Signal Processing, 1999, 47, 2345-2355.	5.3	68
15	Active Hypothesis Testing for Anomaly Detection. IEEE Transactions on Information Theory, 2015, 61, 1432-1450.	2.4	68
16	An Integrated Approach to Energy-Aware Medium Access for Wireless Sensor Networks. IEEE Transactions on Signal Processing, 2007, 55, 3429-3444.	5.3	61
17	Deterministic Sequencing of Exploration and Exploitation for Multi-Armed Bandit Problems. IEEE Journal on Selected Topics in Signal Processing, 2013, 7, 759-767.	10.8	61
18	Energy efficiency of large-scale wireless networks: proactive versus reactive networking. IEEE Journal on Selected Areas in Communications, 2005, 23, 1100-1112.	14.0	59

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19	The interplay between signal processing and networking in sensor networks. IEEE Signal Processing Magazine, 2006, 23, 84-93.	5.6	58
20	Joint Design and Separation Principle for Opportunistic Spectrum Access. , 2006, , .		56
21	Quickest Detection in Multiple Onâ€œOff Processes. IEEE Transactions on Signal Processing, 2010, 58, 5994-6006.	5.3	49
22	Sensor Networks With Mobile Access: Energy and Capacity Considerations. IEEE Transactions on Communications, 2006, 54, 2033-2044.	7.8	48
23	Risk-Averse Multi-Armed Bandit Problems Under Mean-Variance Measure. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 1093-1111.	10.8	48
24	Adaptive blind channel estimation by least squares smoothing. IEEE Transactions on Signal Processing, 1999, 47, 3000-3012.	5.3	47
25	Active Anomaly Detection in Heterogeneous Processes. IEEE Transactions on Information Theory, 2019, 65, 2284-2301.	2.4	44
26	Asymptotically Optimal Anomaly Detection via Sequential Testing. IEEE Transactions on Signal Processing, 2015, 63, 2929-2941.	5.3	39
27	The non-Bayesian restless multi-armed bandit: A case of near-logarithmic regret. , 2011, , .		37
28	Algorithmic Bidding for Virtual Trading in Electricity Markets. IEEE Transactions on Power Systems, 2019, 34, 535-543.	6.5	37
29	Optimal Index Policies for Anomaly Localization in Resource-Constrained Cyber Systems. IEEE Transactions on Signal Processing, 2014, 62, 4224-4236.	5.3	35
30	Decentralized multi-armed bandit with multiple distributed players. , 2010, , .		33
31	Semi-blind collision resolution in random access wireless ad hoc networks. IEEE Transactions on Signal Processing, 2000, 48, 2910-2920.	5.3	32
32	Spectrum Opportunity and Interference Constraint in Opportunistic Spectrum Access. , 2007, , .		32
33	Energy-Aware Adaptive Routing for Large-Scale Ad Hoc Networks: Protocol and Performance Analysis. IEEE Transactions on Mobile Computing, 2007, 6, 1048-1059.	5.8	29
34	Cooperative Game in Dynamic Spectrum Access with Unknown Model and Imperfect Sensing. IEEE Transactions on Wireless Communications, 2012, 11, 1596-1604.	9.2	26
35	Distributed Sensing and Access in Cognitive Radio Networks. , 2008, , .		23
36	Sequential Anomaly Detection Under a Nonlinear System Cost. IEEE Transactions on Signal Processing, 2019, 67, 3689-3703.	5.3	23

#	ARTICLE	IF	CITATIONS
37	Distributed Cognitive MAC for Energy-Constrained Opportunistic Spectrum Access. , 2006, , .		22
38	Sensor Placement for Maximizing Lifetime per Unit Cost in Wireless Sensor Networks. , 0, , .		21
39	Asymptotically Efficient Multichannel Estimation for Opportunistic Spectrum Access. IEEE Transactions on Signal Processing, 2012, 60, 5347-5360.	5.3	21
40	Distributed opportunistic transmission for wireless sensor networks. , 0, , .		20
41	Restless multi-armed bandits under time-varying activation constraints for dynamic spectrum access. , 2014, , .		20
42	Learning and sharing in a changing world: Non-Bayesian restless bandit with multiple players. , 2011, , .		19
43	Broadcasting in multi-radio multi-channel wireless networks using simplicial complexes. Wireless Networks, 2013, 19, 1121-1133.	3.0	19
44	Energy-efficient information retrieval for correlated source reconstruction in sensor networks. IEEE Transactions on Wireless Communications, 2007, 6, 157-165.	9.2	17
45	When to quit for a new job: Quickest detection of spectrum opportunities in multiple channels. , 2008, , .		15
46	Detecting, tracking, and exploiting spectrum opportunities in unslotted primary systems. , 2008, , .		15
47	Searching for Anomalies Over Composite Hypotheses. IEEE Transactions on Signal Processing, 2020, 68, 1181-1196.	5.3	15
48	Indexability and whittle index for restless bandit problems involving reset processes. , 2011, , .		14
49	Optimal Nested Test Plan for Combinatorial Quantitative Group Testing. IEEE Transactions on Signal Processing, 2018, 66, 992-1006.	5.3	13
50	Bursty Traffic in Energy-Constrained Opportunistic Spectrum Access. , 2007, , .		12
51	Separation principle for opportunistic spectrum access in unslotted primary systems. , 2009, , .		12
52	Minimum-energy multicast tree in cognitive radio networks. , 2009, , .		12
53	Dynamic search under false alarms. , 2013, , .		12
54	Mean-variance and value at risk in multi-armed bandit problems. , 2015, , .		12

#	ARTICLE	IF	CITATIONS
55	Active Anomaly Detection with Switching Cost. , 2019, , .		12
56	Multi-Armed Bandits: Theory and Applications to Online Learning in Networks. Synthesis Lectures on Communication Networks, 2019, 12, 1-165.	6.3	12
57	Coverage-Based Information Retrieval for Lifetime Maximization in Sensor Networks. , 2007, , .		10
58	Lifetime Maximization Based on Coverage and Connectivity in Wireless Sensor Networks. Journal of Signal Processing Systems, 2009, 57, 385-400.	2.1	10
59	Quickest anomaly detection: A case of active hypothesis testing. , 2014, , .		10
60	Utility Maximizing Sequential Sensing Over a Finite Horizon. IEEE Transactions on Signal Processing, 2017, 65, 3430-3445.	5.3	10
61	Active hypothesis testing on a tree: Anomaly detection under hierarchical observations. , 2017, , .		10
62	The dynamic queue protocol for spread spectrum random access networks. , 0, , .		9
63	Detection in Sensor Networks. , 0, , 117-148.		9
64	Distributed Learning in Wireless Sensor Networks. , 0, , 185-214.		9
65	Retail pricing for stochastic demand with unknown parameters: An online machine learning approach. , 2013, , .		8
66	Group testing under sum observations for heavy hitter detection. , 2015, , .		8
67	Spread, then target, and advertise in waves: Optimal capital allocation across advertising channels. , 2017, , .		8
68	A Cross-Layer Approach to Cognitive MAC for Spectrum Agility. , 0, , .		7
69	Multi-armed bandit problems with heavy-tailed reward distributions. , 2011, , .		7
70	Multi-channel opportunistic spectrum access in unslotted primary systems with unknown models. , 2011, , .		7
71	Trust, opinion diffusion and radicalization in social networks. , 2011, , .		7
72	Time-varying stochastic multi-armed bandit problems. , 2014, , .		7

#	ARTICLE	IF	CITATIONS
73	Asymptotically optimal search of unknown anomalies. , 2016, , .		7
74	Distributed No-Regret Learning in Multiagent Systems: Challenges and Recent Developments. IEEE Signal Processing Magazine, 2020, 37, 84-91.	5.6	7
75	Information-Directed Random Walk for Rare Event Detection in Hierarchical Processes. IEEE Transactions on Information Theory, 2021, 67, 1099-1116.	2.4	7
76	Spectrum Opportunity Detection: How Good Is Listen-before-Talk?. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	6
77	Opportunistic spectrum access in self similar primary traffic. , 2008, , .		6
78	Dynamic pricing under binary demand uncertainty: A multi-armed bandit with correlated arms. , 2011, , .		6
79	Optimal index policies for quickest localization of anomaly in cyber networks. , 2013, , .		6
80	Hierarchical Heavy Hitter Detection Under Unknown Models. , 2018, , .		6
81	Spread, Then Target, and Advertise in Waves: Optimal Budget Allocation Across Advertising Channels. IEEE Transactions on Network Science and Engineering, 2020, 7, 750-763.	6.4	6
82	Cross-Layer Design of Opportunistic Spectrum Access in the Presence of Sensing Error. , 2006, , .		5
83	Introduction to the Issue on Signal Processing and Networking for Dynamic Spectrum Access. IEEE Journal on Selected Topics in Signal Processing, 2008, 2, 1-3.	10.8	5
84	Achieving complete learning in Multi-Armed Bandit problems. , 2013, , .		5
85	Active Anomaly Detection in Heterogeneous Processes. , 2018, , .		5
86	A Random Walk Approach to First-Order Stochastic Convex Optimization. , 2019, , .		5
87	Searching for Unknown Anomalies in Hierarchical Data Streams. IEEE Signal Processing Letters, 2021, 28, 1774-1778.	3.6	5
88	Data-Centric and Cooperative MAC Protocols for Sensor Networks. , 0, , 311-348.		5
89	On the myopic policy for a class of restless bandit problems with applications in dynamic multichannel access. , 2009, , .		4
90	Delay optimal multichannel opportunistic access. , 2012, , .		4

#	ARTICLE	IF	CITATIONS
91	Application Dependent Shortest Path Routing in Ad-Hoc Sensor Networks. , 0, , 277-309.		4
92	Disagreement-Based Active Learning in Online Settings. IEEE Transactions on Signal Processing, 2022, 70, 1947-1958.	5.3	4
93	A dynamic queue MAC protocol for random access channels with multipacket reception. , 0, , .		3
94	On the Use of Channel State for Energy Efficient Information Retrieval in Sensor Networks. , 0, , .		3
95	Negotiating Multichannel Sensing and Access In Cognitive Radio Wireless Networks. , 2009, , .		3
96	Quickest change detection in multiple on-off processes: Switching with memory. , 2009, , .		3
97	Online learning for stochastic linear optimization problems. , 2012, , .		3
98	Oligopoly dynamic pricing: A repeated game with incomplete information. , 2016, , .		3
99	Online learning and optimization of Markov jump linear models. , 2016, , .		3
100	Decision Variance in Risk-Averse Online Learning. , 2019, , .		3
101	Information-Theoretic Bounds on Sensor Network Performance. , 0, , 7-41.		3
102	Semi-blind collision resolution in random access wireless networks. , 0, , .		2
103	Energy-Efficient Adaptive Routing for Ad Hoc Networks with Time-Varying Heterogeneous Traffic. , 0, , .		2
104	Joint phy-mac design for opportunistic spectrum access with multi-channel sensing. , 2007, , .		2
105	Anomaly detection over independent processes: Switching with memory. , 2014, , .		2
106	Online learning with side information. , 2017, , .		2
107	Multi-Armed Bandits on Partially Revealed Unit Interval Graphs. IEEE Transactions on Network Science and Engineering, 2020, 7, 1453-1465.	6.4	2
108	In-Network Information Processing in Wireless Sensor Networks. , 0, , 43-67.		2

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109	Game Theoretic Activation and Transmission Scheduling in Unattended Ground Sensor Networks: A Correlated Equilibrium Approach. , 0, , 349-387.		2
110	Semi-blind signal separation for collision resolution in wireless ad-hoc networks. , 0, , .		1
111	A connectionless approach to large scale sensor networks. , 0, , .		1
112	Multichannel scheduling and its connection to queueing network control problem. , 2010, , .		1
113	Stochastic online learning under unknown time-varying models. , 2012, , .		1
114	Strategic communications in opinion diffusion. , 2012, , .		1
115	Competitive dynamic pricing under demand uncertainty. , 2014, , .		1
116	Online learning and pricing for demand response in smart distribution networks. , 2016, , .		1
117	Anomaly detection under a nonlinear system cost objective function. , 2017, , .		1
118	Memory-Constrained No-Regret Learning in Adversarial Multi-Armed Bandits. IEEE Transactions on Signal Processing, 2021, 69, 2371-2382.	5.3	1
119	An Order-Optimal Adaptive Test Plan for Noisy Group Testing Under Unknown Noise Models. , 2021, , .		1
120	Distributed Estimation under Bandwidth and Energy Constraints. , 0, , 149-184.		1
121	Decision feedback blind symbol estimation by adaptive least squares smoothing. , 1999, , .		0
122	Learning from collisions in cognitive radio networks: Time Division Fair Sharing without pre-agreement. , 2010, , .		0
123	Asymptotically efficient multi-channel estimation for opportunistic spectrum access. , 2011, , .		0
124	Distributed node-weighted connected dominating set problems. , 2013, , .		0
125	Learning from Dissimilarity. , 2018, , .		0
126	Dynamic Search on a Tree with Information-Directed Random Walk. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
127	Learning Ordinal Information Under Bipartite Stochastic Block Models. , 2018, , .		0
128	Randomized Cooperative Transmission in Large-Scale Sensor Networks. , 0, , 251-275.		0
129	The Sensing Capacity of Sensor Networks. , 0, , 69-91.		0
130	Law of Sensor Network Lifetime and Its Applications. , 0, , 93-116.		0
131	Graphical Models and Fusion in Sensor Networks. , 0, , 215-249.		0