

Sastry Kompella

List of Publications by Year in descending order

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141
papers

2,928
citations

394421

19
h-index

345221

36
g-index

141
all docs

141
docs citations

141
times ranked

1885
citing authors

#	ARTICLE	IF	CITATIONS
1	Age of information under random updates. , 2013, , .		186
2	An Optimal Algorithm for Relay Node Assignment in Cooperative Ad Hoc Networks. IEEE/ACM Transactions on Networking, 2011, 19, 879-892.	3.8	174
3	Effect of Message Transmission Path Diversity on Status Age. IEEE Transactions on Information Theory, 2016, 62, 1360-1374.	2.4	154
4	On Optimal SINR-Based Scheduling in Multihop Wireless Networks. IEEE/ACM Transactions on Networking, 2010, 18, 1713-1724.	3.8	147
5	Optimal relay assignment for cooperative communications. , 2008, , .		137
6	On the Age of Information With Packet Deadlines. IEEE Transactions on Information Theory, 2018, 64, 6419-6428.	2.4	121
7	How to correctly use the protocol interference model for multi-hop wireless networks. , 2009, , .		100
8	Age-optimal updates of multiple information flows. , 2018, , .		93
9	Cooperative Communications in Multi-hop Wireless Networks: Joint Flow Routing and Relay Node Assignment. , 2010, , .		87
10	Effect of message transmission diversity on status age. , 2014, , .		65
11	On Path Selection and Rate Allocation for Video in Wireless Mesh Networks. IEEE/ACM Transactions on Networking, 2009, 17, 212-224.	3.8	59
12	Stable throughput tradeoffs in cognitive shared channels with cooperative relaying. , 2011, , .		56
13	Information freshness and popularity in mobile caching. , 2017, , .		55
14	Cross-layer optimized multipath routing for video communications in wireless networks. IEEE Journal on Selected Areas in Communications, 2007, 25, 831-840.	14.0	54
15	Age of information with a packet deadline. , 2016, , .		54
16	Age-optimal Sampling and Transmission Scheduling in Multi-Source Systems. , 2019, , .		51
17	Bridging the Gap between Protocol and Physical Models for Wireless Networks. IEEE Transactions on Mobile Computing, 2013, 12, 1404-1416.	5.8	47
18	Towards an effective age of information: Remote estimation of a Markov source. , 2018, , .		47

#	ARTICLE	IF	CITATIONS
19	Optimal Sampling and Scheduling for Timely Status Updates in Multi-Source Networks. IEEE Transactions on Information Theory, 2021, 67, 4019-4034.	2.4	46
20	Network Coding in Cooperative Communications: Friend or Foe?. IEEE Transactions on Mobile Computing, 2012, 11, 1073-1085.	5.8	44
21	Squeezing the most out of interference: An optimization framework for joint interference exploitation and avoidance. , 2012, , .		43
22	Controlling the age of information: Buffer size, deadline, and packet replacement. , 2016, , .		39
23	SDN Controller Placement With Delay-Overhead Balancing in Wireless Edge Networks. IEEE Transactions on Network and Service Management, 2018, 15, 1446-1459.	4.9	35
24	Is Network Coding Always Good for Cooperative Communications?. , 2010, , .		34
25	Impact of hostile interference on information freshness: A game approach. , 2017, , .		34
26	Information Freshness Over an Interference Channel: A Game Theoretic View. , 2018, , .		32
27	Age of Incorrect Information for Remote Estimation of a Binary Markov Source. , 2020, , .		32
28	Cross-Layer Optimization for Multi-Hop Wireless Networks With Successive Interference Cancellation. IEEE Transactions on Wireless Communications, 2016, 15, 5819-5831.	9.2	31
29	Joint Flow Routing and Relay Node Assignment in Cooperative Multi-Hop Networks. IEEE Journal on Selected Areas in Communications, 2012, 30, 254-262.	14.0	30
30	Experimental evaluation of the age of information via emulation. , 2015, , .		29
31	Cooperation in Cognitive Underlay Networks: Stable Throughput Tradeoffs. IEEE/ACM Transactions on Networking, 2014, 22, 1756-1768.	3.8	27
32	Frequency Selection and Relay Placement for Energy Efficiency in Underwater Acoustic Networks. IEEE Journal of Oceanic Engineering, 2014, 39, 331-342.	3.8	23
33	A Cross-layer Approach to Optimal Wireless Link Scheduling with SINR Constraints. , 2007, , .		22
34	On the Asymptotic Capacity of Multi-Hop MIMO Ad Hoc Networks. IEEE Transactions on Wireless Communications, 2011, 10, 1032-1037.	9.2	21
35	On the capacity of multiuser MIMO networks with interference. IEEE Transactions on Wireless Communications, 2008, 7, 488-494.	9.2	20
36	A Decomposition Approach to Quality-Driven Multiuser Video Streaming in Cellular Cognitive Radio Networks. IEEE Transactions on Wireless Communications, 2016, 15, 728-739.	9.2	20

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37	Revisiting the optimal scheduling problem. , 2008, , .		19
38	On the Throughput of MIMO-Empowered Multihop Cognitive Radio Networks. IEEE Transactions on Mobile Computing, 2011, 10, 1505-1519.	5.8	19
39	Quality of Experience Driven Multi-User Video Streaming in Cellular Cognitive Radio Networks With Single Channel Access. IEEE Transactions on Multimedia, 2016, 18, 1401-1413.	7.2	19
40	An Analytical Model for Interference Alignment in Multi-Hop MIMO Networks. IEEE Transactions on Mobile Computing, 2016, 15, 17-31.	5.8	19
41	A Distributed Scheduling Algorithm for Underwater Acoustic Networks With Large Propagation Delays. IEEE Transactions on Communications, 2017, 65, 1131-1145.	7.8	19
42	On Link Scheduling in Dual-Hop 60-GHz mmWave Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 11180-11192.	6.3	19
43	Optimization of transmission schedules in capture-based wireless networks. , 2008, , .		18
44	Aol and Throughput Tradeoffs in Routing-aware Multi-hop Wireless Networks. , 2020, , .		18
45	Optimizing network-coded cooperative communications via joint session grouping and relay node selection. , 2011, , .		17
46	On optimal throughput-energy curve for multi-hop wireless networks. , 2011, , .		17
47	Age of Information for Queues in Tandem. , 2018, , .		17
48	Power Control in Full Duplex Underlay Cognitive Radio Networks: A Control Theoretic Approach. , 2014, , .		15
49	UPS: A United Cooperative Paradigm for Primary and Secondary Networks. , 2013, , .		14
50	Shark-IA. , 2014, , .		14
51	On power control in full duplex underlay cognitive radio networks. Ad Hoc Networks, 2016, 37, 183-194.	5.5	14
52	Learning the Optimal Synchronization Rates in Distributed SDN Control Architectures. , 2019, , .		14
53	Toward simple criteria to establish capacity scaling laws for wireless networks. , 2012, , .		13
54	Stable Throughput Regions in Wireless Networks. Foundations and Trends in Networking, 2012, 7, 235-338.	10.2	13

#	ARTICLE	IF	CITATIONS
55	Coexistence of radar and communication systems in CBRS bands through downlink power control. , 2017, , .		13
56	Multi-hop routing and scheduling in wireless networks subject to SINR constraints. , 2007, , .		12
57	QoE driven video streaming in cognitive radio networks: The case of single channel access. , 2014, , .		12
58	Modeling the age of information in emulated ad hoc networks. , 2017, , .		12
59	Learning to Sample a Signal through an Unknown System for Minimum Aol. , 2019, , .		12
60	Conjugate Gradient Projection Approach for MIMO Gaussian Broadcast Channels. , 2007, , .		11
61	A cross-layer approach to end-to-end routing and SINR-based scheduling in multi-hop wireless networks. , 2008, , .		11
62	Boosting or Hindering: Aol and Throughput Interrelation in Routing-Aware Multi-Hop Wireless Networks. IEEE/ACM Transactions on Networking, 2021, 29, 1008-1021.	3.8	11
63	Minimizing Aol in a 5G-Based IoT Network Under Varying Channel Conditions. IEEE Internet of Things Journal, 2021, 8, 14543-14558.	8.7	11
64	Joint Optimization of Session Grouping and Relay Node Selection for Network-Coded Cooperative Communications. IEEE Transactions on Mobile Computing, 2014, 13, 2028-2041.	5.8	10
65	Minimum Time Length Scheduling under Blockage and Interference in Multi-Hop mmWave Networks. , 2015, , .		10
66	Toward Transparent Coexistence for Multihop Secondary Cognitive Radio Networks. IEEE Journal on Selected Areas in Communications, 2015, 33, 958-971.	14.0	10
67	Towards an "Effective Age" Concept. , 2018, , .		10
68	Information freshness over a Markov channel: The effect of channel state information. Ad Hoc Networks, 2019, 86, 63-71.	5.5	10
69	Aion: A Bandwidth Optimized Scheduler with Aol Guarantee. , 2021, , .		10
70	Scheduling With Age of Information Guarantee. IEEE/ACM Transactions on Networking, 2022, 30, 2046-2059.	3.8	10
71	Ao ² : Minimizing Age of Outdated Information to Improve Freshness in Data Collection. , 2022, , .		10
72	Channel sharing in cognitive radio networks. , 2010, , .		9

#	ARTICLE	IF	CITATIONS
73	On Capacity Scaling Law of Cognitive Radio Ad Hoc Networks. , 2011, , .		9
74	On interference alignment for multi-hop MIMO networks. , 2013, , .		8
75	Beyond Overlay: Reaping Mutual Benefits for Primary and Secondary Networks Through Node-Level Cooperation. IEEE Transactions on Mobile Computing, 2017, 16, 2-15.	5.8	8
76	Path Selection and Rate Allocation for Video Streaming in Multihop Wireless Networks. , 2006, , .		7
77	A cross-layer approach to multi-hop networking with cognitive radios. , 2008, , .		7
78	Optimal Scheduling in Interference Limited Fading Wireless Networks. , 2009, , .		7
79	Beyond interference avoidance: On transparent coexistence for multi-hop secondary CR networks. , 2013, , .		7
80	Experiment: Investigating Feasibility of Coexistence of LTE-U with a Rotating Radar in CBRS Bands. , 2018, , .		6
81	Practical Implementation of Adaptive Threshold Energy Detection using Software Defined Radio. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 1227-1241.	4.7	6
82	Transmission scheduling in capture-based wireless networks. , 2009, , .		5
83	Multicast throughput stability analysis for cognitive cooperative random access. , 2013, , .		5
84	Cognitive Cooperative Random Access for Multicast: Stability and Throughput Analysis. IEEE Transactions on Control of Network Systems, 2014, 1, 135-144.	3.7	5
85	Minimum-energy link scheduling for emptying wireless networks. , 2015, , .		5
86	Network-coded cooperative communications with multiple relay nodes: Achievable rate and network optimization. Ad Hoc Networks, 2016, 53, 79-93.	5.5	5
87	On Throughput Region for Primary and Secondary Networks With Node-Level Cooperation. IEEE Journal on Selected Areas in Communications, 2016, 34, 2763-2775.	14.0	5
88	Design and implementation of an underlay control channel for NC-OFDM-based networks. , 2016, , .		5
89	Impact of relay placement on energy efficiency in Underwater Acoustic Networks. , 2011, , .		4
90	Transmission strategies for single-destination wireless networks. , 2011, , .		4

#	ARTICLE	IF	CITATIONS
91	Bicriteria Optimization in Multihop Wireless Networks: Characterizing the Throughput-Energy Envelope. IEEE Transactions on Mobile Computing, 2013, 12, 1866-1878.	5.8	4
92	Optimal throughput curve for primary and secondary users with node-level cooperation. , 2015, , .		4
93	Generalizable and Interpretable Deep Learning for Network Congestion Prediction. , 2021, , .		4
94	Cross-Layer Optimization for UWB-Based AD HOC Networks. , 2006, , .		3
95	Optimal Multipath Routing for Performance Guarantees in Multi-Hop Wireless Networks. , 2007, , .		3
96	Optimal grouping and matching for network-coded cooperative communications. , 2011, , .		3
97	Network Performance and Spectral Behavior of Cognitive Radios during a Coexistence Field Test. , 2014, , .		3
98	Achievable Throughput under BER Constraints via Transmission Scheduling and Multiuser Detection. IEEE Transactions on Wireless Communications, 2014, 13, 124-131.	9.2	3
99	SINR-based scheduling for minimum latency broadcast. , 2015, , .		3
100	Physical-layer security of NC-OFDM-based systems. , 2016, , .		3
101	How Close Can I Be? - A Comprehensive Analysis of Cellular Interference on ATC Radar. , 2017, , .		3
102	A General Model for DoF-based Interference Cancellation in MIMO Networks With Rank-Deficient Channels. , 2018, , .		3
103	Special issue on age of information. Journal of Communications and Networks, 2019, 21, 201-203.	2.6	3
104	How Advantageous Is It? An Analytical Study of Controller-Assisted Path Construction in Distributed SDN. IEEE/ACM Transactions on Networking, 2019, 27, 1643-1656.	3.8	3
105	<title>Performance of multiresolution pattern classifiers in medical image encoding from wavelet coefficient distributions</title>. , 1998, 3338, 256.		2
106	Achievable Rate Analysis in Network-Coded Cooperative Communications with Multiple Relay Nodes. , 2011, , .		2
107	Impact of channel state information on the stability of cognitive shared channels. , 2012, , .		2
108	Wireless multicast with cooperative relaying. , 2012, , .		2

#	ARTICLE	IF	CITATIONS
109	Wireless link connectivity under hostile interference: Nash and stackelberg equilibria. , 2016, , .		2
110	Impact of Hostile Interference on Wireless Link Connectivity. IEEE Transactions on Control of Network Systems, 2018, 5, 1445-1456.	3.7	2
111	A General Method to Determine Asymptotic Capacity Upper Bounds for Wireless Networks. IEEE Transactions on Network Science and Engineering, 2019, 6, 2-15.	6.4	2
112	On DoF-Based Interference Cancellation Under General Channel Rank Conditions. IEEE/ACM Transactions on Networking, 2020, 28, 1002-1016.	3.8	2
113	Exploring transmit null forming in open-loop coherent distributed arrays. , 2020, , .		2
114	Age of Sensed Information in a Cognitive Radio Network. , 2021, , .		2
115	A Theory of Second-Order Wireless Network Optimization and Its Application on Aol. , 2022, , .		2
116	Cooperation for transmission scheduling in wireless networks. , 2009, , .		1
117	Optimal frequency selection for energy efficient underwater acoustic networks. , 2012, , .		1
118	Achieving transparent coexistence in a multi-hop secondary network through distributed computation. , 2014, , .		1
119	Simultaneous Schedule-Based Transmission by Primary and Secondary Users for Heavy-Traffic Cognitive Radio Networks. IEEE Transactions on Vehicular Technology, 2015, 64, 1132-1142.	6.3	1
120	A Distributed Algorithm to Achieve Transparent Coexistence for a Secondary Multi-Hop MIMO Network. IEEE Transactions on Wireless Communications, 2016, 15, 6063-6077.	9.2	1
121	Link scheduling and channel assignment with a graph spectral clustering approach. , 2016, , .		1
122	Special issue on wireless SDN. Journal of Communications and Networks, 2017, 19, 543-545.	2.6	1
123	Magnalium: Highly Reliable SDC Networks with Multiple Control Plane Composition. , 2019, , .		1
124	A Model for Coherent Communication Gain in Distributed Wireless Networks. , 2021, , .		1
125	The Role of Aol in a Cognitive Radio Network: Lyapunov Optimization and Tradeoffs. , 2021, , .		1
126	Wireless Network Topology Control: Adjustable Resiliency and Network Traffic Delivery. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
127	Age of Information Optimization in Multi-Channel Based Multi-Hop Wireless Networks. IEEE Transactions on Mobile Computing, 2022, , 1-15.	5.8	1
128	Optimal scheduling in frequency-agile wireless networks. , 2010, , .		0
129	Parallel TDMA Scheduling for Multiple-Destination Wireless Networks. IEEE Transactions on Wireless Communications, 2011, 10, 3843-3851.	9.2	0
130	Optimal resource allocation in a bandwidth exchange enabled relay network. , 2011, , .		0
131	Implementation of distributed time exchange based cooperative forwarding. , 2012, , .		0
132	On Optimal Wireless Scheduling with Propagation Delays. , 2013, , .		0
133	Impact of channel state information on energy efficient transmission in interference channels. , 2014, , .		0
134	Special issue on cognitive networking. Journal of Communications and Networks, 2014, 16, 101-109.	2.6	0
135	Minimum Time Length Scheduling under Blockage and Interference in Multi-Hop mmWave Networks. , 2014, , .		0
136	Impact of asynchronous transmissions in noncontiguous OFDMA. , 2017, , .		0
137	MIMO-Empowered Secondary Networks for Efficient Spectrum Sharing. , 2019, , 989-1020.		0
138	System Power Minimization in Non-contiguous Spectrum Access. , 2019, , 839-868.		0
139	Transmission scheduling in spatio-temporal process monitoring based wireless sensor networks. , 2020, , .		0
140	Ad Hoc Networking Under Limitations on Sum Power Interference to an External Node. , 2021, , .		0
141	Radar Target Classification Receiver Using Sparse Regression and Target Tailored Matched Filters. IEEE Transactions on Aerospace and Electronic Systems, 2022, , 1-12.	4.7	0