Atilla Eryilmaz

List of Publications by Year
in descending order

87	1,717	471061 17	395343 33
papers	citations	h-index	g-index

87	87	87	1182
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fair Resource Allocation in Wireless Networks Using Queue-Length-Based Scheduling and Congestion Control. IEEE/ACM Transactions on Networking, 2007, 15, 1333-1344.	2.6	203
2	On Delay Performance Gains From Network Coding. , 2006, , .		147
3	Asymptotically tight steady-state queue length bounds implied by drift conditions. Queueing Systems, 2012, 72, 311-359.	0.6	123
4	On the Delay and Throughput Gains of Coding in Unreliable Networks. IEEE Transactions on Information Theory, 2008, 54, 5511-5524.	1.5	119
5	Proactive Resource Allocation: Harnessing the Diversity and Multicast Gains. IEEE Transactions on Information Theory, 2013, 59, 4833-4854.	1.5	60
6	On Optimal Proactive Caching for Mobile Networks With Demand Uncertainties. IEEE/ACM Transactions on Networking, 2016, 24, 2715-2727.	2.6	59
7	Throughput-Delay Analysis of Random Linear Network Coding for Wireless Broadcasting. IEEE Transactions on Information Theory, 2013, 59, 6328-6341.	1.5	54
8	Control of Multi-Hop Communication Networks for Inter-Session Network Coding. IEEE Transactions on Information Theory, 2011, 57, 1092-1110.	1.5	52
9	Proactive Content Download and User Demand Shaping for Data Networks. IEEE/ACM Transactions on Networking, 2015, 23, 1917-1930.	2.6	51
10	Optimal Distributed Scheduling under Time-Varying Conditions: A Fast-CSMA Algorithm with Applications. IEEE Transactions on Wireless Communications, 2013, 12, 3278-3288.	6.1	39
11	Distributed Cross-Layer Algorithms for the Optimal Control of Multihop Wireless Networks. IEEE/ACM Transactions on Networking, 2010, 18, 638-651.	2.6	37
12	Wireless scheduling for information freshness and synchrony: Drift-based design and heavy-traffic analysis. , 2017, , .		37
13	Delay-Aware Cross-Layer Design for Network Utility Maximization in Multi-Hop Networks. IEEE Journal on Selected Areas in Communications, 2011, 29, 951-959.	9.7	36
14	Wireless Scheduling for Information Freshness and Synchrony: Drift-Based Design and Heavy-Traffic Analysis. IEEE/ACM Transactions on Networking, 2018, 26, 2556-2568.	2.6	36
15	Throughput-optimal wireless scheduling with regulated inter-service times. , 2013, , .		35
16	Joint Smart Pricing and Proactive Content Caching for Mobile Services. IEEE/ACM Transactions on Networking, 2016, 24, 2357-2371.	2.6	34
17	A backlog-based CSMA mechanism to achieve fairness and throughput-optimality in multihop wireless networks. , 2008, , .		32
18	Achievable rate region of CSMA schedulers in wireless networks with primary interference constraints. , 2007, , .		31

#	Article	IF	Citations
19	On the universality of age-based scheduling in wireless networks. , 2015, , .		31
20	Scheduling for End-to-End Deadline-Constrained Traffic With Reliability Requirements in Multihop Networks. IEEE/ACM Transactions on Networking, 2012, 20, 1649-1662.	2.6	29
21	On the Scaling Law of Network Coding Gains in Wireless Networks. , 2007, , .		22
22	Proactive resource allocation: Turning predictable behavior into spectral gain. , 2010, , .		22
23	Fresh Caching for Dynamic Content. , 2021, , .		22
24	Asynchronous Congestion Control in Multi-Hop Wireless Networks With Maximal Matching-Based Scheduling. IEEE/ACM Transactions on Networking, 2008, 16, 826-839.	2.6	20
25	Heavy-traffic-optimal scheduling with regular service guarantees in wireless networks. , 2013, , .		19
26	Exploiting Channel Memory for Joint Estimation and Scheduling in Downlink Networksâ€”a Whittleâ€™s Indexability Analysis. IEEE Transactions on Information Theory, 2015, 61, 1702-1719.	1.5	18
27	Throughput-Optimal Scheduling Design With Regular Service Guarantees in Wireless Networks. IEEE/ACM Transactions on Networking, 2015, 23, 1542-1552.	2.6	18
28	Scheduling for end-to-end deadline-constrained traffic with reliability requirements in multi-hop networks. , 2011, , .		16
29	Multirate Multicasting With Intralayer Network Coding. IEEE/ACM Transactions on Networking, 2013, 21, 1256-1269.	2.6	16
30	Pricing for demand shaping and proactive download in smart data networks. , 2013, , .		13
31	Asynchronous CSMA Policies in Multihop Wireless Networks With Primary Interference Constraints. IEEE Transactions on Information Theory, 2011, 57, 3644-3676.	1.5	12
32	On proactive caching with demand and channel uncertainties. , 2015, , .		12
33	On Resource Allocation in Fading Multiple-Access Channelsâ€“An Efficient Approximate Projection Approach. IEEE Transactions on Information Theory, 2010, 56, 4417-4437.	1.5	11
34	Pricing for demand shaping and proactive download in smart data networks. , 2013, , .		11
35	Wireless scheduling for network utility maximization with optimal convergence speed. , 2013, , .		11
36	Stable real-time pricing and scheduling for serving opportunistic users with deferrable loads. , 2013, , .		9

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37	On the Optimal Convergence Speed of Wireless Scheduling for Fair Resource Allocation. IEEE/ACM Transactions on Networking, 2015, 23, 631-643.	2.6	9
38	A game theoretic approach to content trading in proactive wireless networks. , 2015, , .		9
39	Understanding the Impacts of Limited Channel State Information on Massive MIMO Cellular Network Optimization. IEEE Journal on Selected Areas in Communications, 2017, 35, 1715-1727.	9.7	9
40	Identification and Asymptotic Localization of Rumor Sources Using the Method of Types. IEEE Transactions on Network Science and Engineering, 2020, 7, 1145-1157.	4.1	9
41	Single vs Distributed Edge Caching for Dynamic Content. IEEE/ACM Transactions on Networking, 2022, 30, 669-682.	2.6	9
42	A distributed newton method for dynamic Network Utility Maximization with delivery contracts. , 2012, , .		8
43	Exploring the Throughput Boundaries of Randomized Schedulers in Wireless Networks. IEEE/ACM Transactions on Networking, 2012, 20, 1112-1124.	2.6	8
44	Joint pricing and proactive caching for data services: Global and user-centric approaches. , 2014, , .		8
45	Learning for serving deadline-constrained traffic in multi-channel wireless networks. , 2017, , .		8
46	Wireless Multicasting for Content Distribution: Stability and Delay Gain Analysis. , 2019, , .		8
47	Delay Gain Analysis of Wireless Multicasting for Content Distribution. IEEE/ACM Transactions on Networking, 2021, 29, 529-542.	2.6	8
48	Network Coding in a Multicast Switch. IEEE Transactions on Information Theory, 2011, 57, 436-460.	1.5	7
49	Optimal Dynamic Coding-Window Selection for Serving Deadline-Constrained Traffic Over Time-Varying Channels. IEEE Transactions on Information Theory, 2012, 58, 6556-6571.	1.5	7
50	Proactive Content Distribution for dynamic content. , 2013, , .		7
51	Can carriers make more profit while users save money?. , 2014, , .		7
52	Discounted-rate utility maximization (DRUM): A framework for delay-sensitive fair resource allocation. , 2017, , .		7
53	EMIT: An Efficient MAC Paradigm for the Internet of Things. IEEE/ACM Transactions on Networking, 2019, 27, 1572-1583.	2.6	7
54	Optimal constant splitting for efficient routing over unreliable networks. , 2012, , .		6

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55	Distributed channel probing for efficient transmission scheduling over wireless fading channels. , 2012, , .		6
56	Wireless Scheduling Design for Optimizing Both Service Regularity and Mean Delay in Heavy-Traffic Regimes. IEEE/ACM Transactions on Networking, 2016, 24, 1867-1880.	2.6	6
57	Proactive multicasting with predictable demands. , 2011, , .		5
58	Guest Editorial Trading Rate for Delay at the Application and Transport Layers. IEEE Journal on Selected Areas in Communications, 2011, 29, 913-915.	9.7	5
59	Fresh Caching of Dynamic Content Over the Wireless Edge. IEEE/ACM Transactions on Networking, 2022, 30, 2315-2327.	2.6	5
60	Imperfect randomized algorithms for the optimal control of wireless networks. , 2008, , .		4
61	A fast-CSMA based distributed scheduling algorithm under SINR model. , 2012, , .		4
62	Color of interference and joint encoding and medium access in large wireless networks. , 2012, , .		4
63	Randomized pricing for the optimal coordination of opportunistic agents. , 2014, , .		4
64	Distributed Channel Probing for Efficient Transmission Scheduling in Wireless Networks. IEEE Transactions on Mobile Computing, 2015, 14, 1176-1188.	3.9	4
65	Rate and power allocation in fading multiple access channels. , 2008, , .		3
66	Dynamic rate allocation in fading multiple access channels. , 2008, , .		3
67	On the Multi-Channel Capacity Gains of Millimeter-Wave Communication. , 2016, , .		3
68	Optimal Learning for Dynamic Coding in Deadline-Constrained Multi-Channel Networks. IEEE/ACM Transactions on Networking, 2019, 27, 1043-1054.	2.6	3
69	Counterintuitive Characteristics of Optimal Distributed LRU Caching Over Unreliable Channels. IEEE/ACM Transactions on Networking, 2020, 28, 2461-2474.	2.6	3
70	Optimal Load-Splitting and Distributed-Caching for Dynamic Content. , 2021, , .		3
71	Information theory vs. queueing theory for resource allocation in multiple access channels. , 2008, , .		2
72	On the limitations of randomization for Queue-Length-Based Scheduling in wireless networks. , 2011, , .		2

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73	Towards a mobile content marketplace. , 2015, , .		2
74	Action-Based Scheduling: Leveraging App Interactivity for Scheduler Efficiency. IEEE/ACM Transactions on Networking, 2019, 27, 112-125.	2.6	2
75	Pricing algorithms for the day-ahead electricity market with flexible consumer participation. , 2013, , .		1
76	Pricing algorithms for the day-ahead electricity market with flexible consumer participation. , 2013, , .		1
77	Non-derivative algorithm design for efficient routing over unreliable stochastic networks. Performance Evaluation, 2014, 71, 44-60.	0.9	1
78	Pricing for the Optimal Coordination of Opportunistic Agents. IEEE Transactions on Control of Network Systems, 2018, 5, 833-845.	2.4	1
79	Prefetching and caching for minimizing service costs: Optimal and approximation strategies. Performance Evaluation, 2021, 145, 102149.	0.9	1
80	Low-Overhead Distributed MAC for Serving Dynamic Users over Multiple Channels. , 2021, , .		1
81	Exploring the tradeoff between waiting time and service cost in non-asymptotic operating regimes. , 2013, , .		0
82	Optimal load following in power grids in the presence of battery-powered agents. , 2013, , .		0
83	Dayahead Electricity Pricing for a Heterogeneous Microgrid Under Arbitrary Utility and Cost Structures. IEEE Transactions on Smart Grid, 2018, 9, 336-345.	6.2	0
84	On Optimal Proactive Caching with Improving Predictions over Time. , 2018, , .		0
85	Quick discovery of mobile devices in the many-user regime â€" carrier sensing or simultaneous detection?. , 2018, , .		0
86	A Flexible Distributed Stochastic Optimization Framework for Concurrent Tasks in Processing Networks. IEEE/ACM Transactions on Networking, 2021, , 1-14.	2.6	0
87	Counter-Intuitive Characteristics of Rational Decision-Making Using Biased Inputs in Information Networks. IEEE/ACM Transactions on Networking, 2021, 29, 1774-1785.	2.6	0