

# Michael J Neely

## List of Publications by Year in descending order

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74  
papers

2,370  
citations

331670

21  
h-index

315739

38  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1735  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fairness and Optimal Stochastic Control for Heterogeneous Networks. IEEE/ACM Transactions on Networking, 2008, 16, 396-409.	3.8	311
2	Efficient Algorithms for Renewable Energy Allocation to Delay Tolerant Consumers. , 2010, , .		167
3	Opportunistic Scheduling with Reliability Guarantees in Cognitive Radio Networks. IEEE Transactions on Mobile Computing, 2009, 8, 766-777.	5.8	161
4	Optimal Energy and Delay Tradeoffs for Multiuser Wireless Downlinks. IEEE Transactions on Information Theory, 2007, 53, 3095-3113.	2.4	129
5	Energy-Efficient Transmissions With Individual Packet Delay Constraints. IEEE Transactions on Information Theory, 2008, 54, 2090-2109.	2.4	129
6	Opportunistic Cooperation in Cognitive Femtocell Networks. IEEE Journal on Selected Areas in Communications, 2012, 30, 607-616.	14.0	111
7	Opportunistic scheduling with worst case delay guarantees in single and multi-hop networks. , 2011, , .		100
8	Delay reduction via Lagrange multipliers in stochastic network optimization. IEEE Transactions on Automatic Control, 2011, 56, 842-857.	5.7	94
9	Order Optimal Delay for Opportunistic Scheduling in Multi-User Wireless Uplinks and Downlinks. IEEE/ACM Transactions on Networking, 2008, 16, 1188-1199.	3.8	72
10	MIMO Downlink Scheduling with Non-Perfect Channel State Knowledge. IEEE Transactions on Communications, 2010, 58, 2055-2066.	7.8	69
11	Dynamic Optimization and Learning for Renewal Systems. IEEE Transactions on Automatic Control, 2013, 58, 32-46.	5.7	68
12	Bipartite index coding. , 2012, , .		61
13	Universal scheduling for networks with arbitrary traffic, channels, and mobility. , 2010, , .		57
14	Intelligent Packet Dropping for Optimal Energy-Delay Tradeoffs in Wireless Downlinks. IEEE Transactions on Automatic Control, 2009, 54, 565-579.	5.7	48
15	Dynamic Index Coding for Wireless Broadcast Networks. IEEE Transactions on Information Theory, 2013, 59, 7525-7540.	2.4	45
16	Delay Analysis for Maximal Scheduling With Flow Control in Wireless Networks With Bursty Traffic. IEEE/ACM Transactions on Networking, 2009, 17, 1146-1159.	3.8	43
17	The Optimality of Two Prices: Maximizing Revenue in a Stochastic Communication System. IEEE/ACM Transactions on Networking, 2010, 18, 406-419.	3.8	40
18	Delay Analysis for Max Weight Opportunistic Scheduling in Wireless Systems. IEEE Transactions on Automatic Control, 2009, 54, 2137-2150.	5.7	39

#	ARTICLE	IF	CITATIONS
19	Energy-efficient scheduling with individual packet delay constraints over a fading channel. <i>Wireless Networks</i> , 2009, 15, 601-618.	3.0	31
20	Energy-Optimal Scheduling with Dynamic Channel Acquisition in Wireless Downlinks. <i>IEEE Transactions on Mobile Computing</i> , 2010, 9, 527-539.	5.8	30
21	Optimal Routing with Mutual Information Accumulation in Wireless Networks. <i>IEEE Journal on Selected Areas in Communications</i> , 2012, 30, 1730-1737.	14.0	28
22	SigSag: Iterative Detection Through Soft Message-Passing. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2011, 5, 1512-1523.	10.8	26
23	Energy-Efficient Scheduling with Individual Delay Constraints over a Fading Channel. , 2007, , .		25
24	Dynamic index coding for wireless broadcast networks. , 2012, , .		25
25	Dynamic Markov Decision Policies for Delay Constrained Wireless Scheduling. <i>IEEE Transactions on Automatic Control</i> , 2013, 58, 1948-1961.	5.7	25
26	Backpressure Delay Enhancement for Encounter-Based Mobile Networks While Sustaining Throughput Optimality. <i>IEEE/ACM Transactions on Networking</i> , 2016, 24, 1196-1208.	3.8	23
27	Max Weight Learning Algorithms for Scheduling in Unknown Environments. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 1179-1191.	5.7	22
28	Utility optimization for dynamic peer-to-peer networks with tit-for-tat constraints. , 2011, , .		21
29	Stock market trading via stochastic network optimization. , 2010, , .		20
30	Delay-Limited Cooperative Communication With Reliability Constraints in Wireless Networks. <i>IEEE Transactions on Information Theory</i> , 2014, 60, 1869-1882.	2.4	18
31	A New Backpressure Algorithm for Joint Rate Control and Routing With Vanishing Utility Optimality Gaps and Finite Queue Lengths. <i>IEEE/ACM Transactions on Networking</i> , 2018, 26, 1605-1618.	3.8	18
32	Stochastic optimization for Markov modulated networks with application to delay constrained wireless scheduling. , 2009, , .		17
33	Delay and rate-optimal control in a multi-class priority queue with adjustable service rates. , 2012, , .		17
34	Delay analysis for max weight opportunistic scheduling in wireless systems. , 2008, , .		16
35	Dynamic optimization and learning for renewal systems. , 2010, , .		16
36	Optimizing Information Credibility in Social Swarming Applications. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2012, 23, 1147-1158.	5.6	16

#	ARTICLE	IF	CITATIONS
37	Optimal Peer-to-Peer Scheduling for Mobile Wireless Networks with Redundantly Distributed Data. IEEE Transactions on Mobile Computing, 2014, 13, 2086-2099.	5.8	13
38	Learning-Aided Optimization for Energy-Harvesting Devices With Outdated State Information. IEEE/ACM Transactions on Networking, 2019, 27, 1501-1514.	3.8	13
39	Network utility maximization over partially observable Markovian channels. , 2011, , .		12
40	Quality of Information Maximization for Wireless Networks via a Fully Separable Quadratic Policy. IEEE/ACM Transactions on Networking, 2015, 23, 574-586.	3.8	11
41	Energy-Aware Wireless Scheduling With Near-Optimal Backlog and Convergence Time Tradeoffs. IEEE/ACM Transactions on Networking, 2016, 24, 2223-2236.	3.8	11
42	Dynamic Transmit Covariance Design in MIMO Fading Systems With Unknown Channel Distributions and Inaccurate Channel State Information. IEEE Transactions on Wireless Communications, 2017, 16, 3996-4008.	9.2	11
43	Iterative Message Passing Algorithm for Bipartite Maximum Weighted Matching. , 2006, , .		10
44	Quality of Information aware scheduling in task processing networks. , 2011, , .		10
45	Optimal routing with mutual information accumulation in wireless networks. , 2011, , .		10
46	On the Convergence Time of Dual Subgradient Methods for Strongly Convex Programs. IEEE Transactions on Automatic Control, 2018, 63, 1105-1112.	5.7	10
47	On the convergence time of the drift-plus-penalty algorithm for strongly convex programs. , 2015, , .		9
48	A primal-dual type algorithm with the $O(1/t)$ convergence rate for large scale constrained convex programs. , 2016, , .		9
49	Duality Codes and the Integrality Gap Bound for Index Coding. IEEE Transactions on Information Theory, 2014, 60, 7256-7268.	2.4	8
50	A new backpressure algorithm for joint rate control and routing with vanishing utility optimality gaps and finite queue lengths. , 2017, , .		8
51	Multicasting in Time-varying Wireless Networks: Cross-layer Dynamic Resource Allocation. , 2007, , .		7
52	Solving convex optimization with side constraints in a multi-class queue by adaptive $\mu c^{1/4}$ rule. Queueing Systems, 2014, 77, 331-372.	0.9	7
53	Achieving utility-delay-reliability tradeoff in stochastic network optimization with finite buffers. , 2015, , .		7
54	Data Center Server Provision: Distributed Asynchronous Control for Coupled Renewal Systems. IEEE/ACM Transactions on Networking, 2017, 25, 2180-2194.	3.8	7

#	ARTICLE	IF	CITATIONS
55	Mathematical analysis of throughput bounds in random access with ZIGZAG decoding. , 2009, , .		6
56	Power-Aware Wireless File Downloading: A Lyapunov Indexing Approach to a Constrained Restless Bandit Problem. IEEE/ACM Transactions on Networking, 2016, 24, 2264-2277.	3.8	6
57	Delay-Constrained Energy-Efficient Scheduling over a Multihop Link. , 2007, , .		5
58	Convergence and Adaptation for Utility Optimal Opportunistic Scheduling. IEEE/ACM Transactions on Networking, 2019, 27, 904-917.	3.8	5
59	Energy-optimal scheduling with dynamic channel acquisition in wireless downlinks. , 2007, , .		4
60	Stochastic network optimization with non-convex utilities and costs. , 2010, , .		4
61	SigSag: Iterative detection through soft message-passing. , 2011, , .		4
62	Delay reduction via Lagrange Multipliers in stochastic network optimization. , 2009, , .		3
63	Mathematical Analysis of Throughput Bounds in Random Access with ZigZag Decoding. Mobile Networks and Applications, 2011, 16, 255-266.	3.3	3
64	Quality of information maximization in two-hop wireless networks. , 2012, , .		3
65	Time-average optimization with nonconvex decision set and its convergence. , 2014, , .		3
66	Dynamic power allocation in MIMO fading systems without channel distribution information. , 2016, , .		3
67	Time-average stochastic optimization with non-convex decision set and its convergence. , 2015, , .		2
68	Time-Average Optimization With Nonconvex Decision Set and Its Convergence. IEEE Transactions on Automatic Control, 2017, 62, 4202-4208.	5.7	2
69	Opportunistic cooperation in cognitive radio networks. , 2012, , .		1
70	Power aware wireless file downloading: A constrained restless bandit approach. , 2014, , .		1
71	Delay optimal power aware opportunistic scheduling with mutual information accumulation. , 2016, , .		1
72	Asynchronous Optimization over Weakly Coupled Renewal Systems. Stochastic Systems, 2018, 8, 167-191.	1.1	1

#	ARTICLE	IF	CITATIONS
73	A Converse Result on Convergence Time for Opportunistic Wireless Scheduling. , 2020, , .		1
74	A Converse Result on Convergence Time for Opportunistic Wireless Scheduling. IEEE/ACM Transactions on Networking, 2022, 30, 1540-1553.	3.8	1