

Mung Chiang

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

132
papers

8,130
citations

41
h-index

89
g-index

151
ext. papers

9,712
ext. citations

5.8
avg. IF

6.64
L-index

#	Paper	IF	Citations
132	Fog and IoT: An Overview of Research Opportunities. <i>IEEE Internet of Things Journal</i> , 2016 , 3, 854-864	10.7	1270
131	. <i>IEEE Journal on Selected Areas in Communications</i> , 2006 , 24, 1439-1451	14.2	1035
130	Layering as Optimization Decomposition: A Mathematical Theory of Network Architectures. <i>Proceedings of the IEEE</i> , 2007 , 95, 255-312	14.3	814
129	. <i>IEEE Transactions on Wireless Communications</i> , 2007 , 6, 2640-2651	9.6	547
128	Auction-Based Resource Allocation for Cooperative Communications. <i>IEEE Journal on Selected Areas in Communications</i> , 2008 , 26, 1226-1237	14.2	192
127	Geometric Programming for Communication Systems. <i>Foundations and Trends in Communications and Information Theory</i> , 2005 , 2, 1-154	6.1	185
126	Balancing transport and physical Layers in wireless multihop networks: jointly optimal congestion control and power control. <i>IEEE Journal on Selected Areas in Communications</i> , 2005 , 23, 104-116	14.2	176
125	An Axiomatic Theory of Fairness in Network Resource Allocation 2010 ,		174
124	. <i>IEEE Transactions on Automatic Control</i> , 2007 , 52, 2254-2269	5.9	173
123	A game-theoretic approach to energy-efficient power control in multicarrier CDMA systems. <i>IEEE Journal on Selected Areas in Communications</i> , 2006 , 24, 1115-1129	14.2	172
122	Optimized Day-Ahead Pricing for Smart Grids with Device-Specific Scheduling Flexibility. <i>IEEE Journal on Selected Areas in Communications</i> , 2012 , 30, 1075-1085	14.2	141
121	Autonomous Spectrum Balancing for Digital Subscriber Lines. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 4241-4257	4.8	124
120	On unbounded path-loss models: effects of singularity on wireless network performance. <i>IEEE Journal on Selected Areas in Communications</i> , 2009 , 27, 1078-1092	14.2	120
119	. <i>IEEE Transactions on Learning Technologies</i> , 2014 , 7, 346-359	4	110
118	QoS and fairness constrained convex optimization of resource allocation for wireless cellular and ad hoc networks		100
117	Maximizing Sum Rate and Minimizing MSE on Multiuser Downlink: Optimality, Fast Algorithms and Equivalence via Max-min SINR. <i>IEEE Transactions on Signal Processing</i> , 2011 , 59, 6127-6143	4.8	97
116	Distributed Uplink Power Control for Optimal SIR Assignment in Cellular Data Networks. <i>IEEE/ACM Transactions on Networking</i> , 2008 , 16, 1420-1433	3.8	96

115	Distributed Rate Allocation for Inelastic Flows. <i>IEEE/ACM Transactions on Networking</i> , 2007 , 15, 1240-1253	3.8	89
114	Fast Algorithms and Performance Bounds for Sum Rate Maximization in Wireless Networks. <i>IEEE/ACM Transactions on Networking</i> , 2013 , 21, 706-719	3.8	89
113	Utility-optimal random-access control. <i>IEEE Transactions on Wireless Communications</i> , 2007 , 6, 2741-2751	9.6	84
112	Price-based distributed algorithms for rate-reliability tradeoff in network utility maximization. <i>IEEE Journal on Selected Areas in Communications</i> , 2006 , 24, 962-976	14.2	81
111	MOOC performance prediction via clickstream data and social learning networks 2015 ,		78
110	Multiresource Allocation: Fairness-Efficiency Tradeoffs in a Unifying Framework. <i>IEEE/ACM Transactions on Networking</i> , 2013 , 21, 1785-1798	3.8	78
109	Multi-resource allocation: Fairness-efficiency tradeoffs in a unifying framework 2012 ,		78
108	Joint Source Adaptation and Resource Allocation for Multi-User Wireless Video Streaming. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2008 , 18, 582-595	6.4	78
107	Optimization Based Rate Control for Multicast with Network Coding 2007 ,		75
106	Jointly optimal congestion and contention control based on network utility maximization. <i>IEEE Communications Letters</i> , 2006 , 10, 216-218	3.8	71
105	Pricing under Constraints in Access Networks: Revenue Maximization and Congestion Management 2010 ,		68
104	Optimal Power Allocation for Distributed Detection Over MIMO Channels in Wireless Sensor Networks. <i>IEEE Transactions on Signal Processing</i> , 2008 , 56, 4124-4140	4.8	68
103	Channel capacity and state estimation for state-dependent Gaussian channels. <i>IEEE Transactions on Information Theory</i> , 2005 , 51, 1486-1495	2.8	67
102	Stochastic network utility maximisation – tribute to Kelly’s paper published in this journal a decade ago. <i>European Transactions on Telecommunications</i> , 2008 , 19, 421-442		66
101	Geometric programming duals of channel capacity and rate distortion. <i>IEEE Transactions on Information Theory</i> , 2004 , 50, 245-258	2.8	59
100	From Technological Networks to Social Networks. <i>IEEE Journal on Selected Areas in Communications</i> , 2013 , 31, 548-572	14.2	58
99	Equilibrium of Heterogeneous Congestion Control: Existence and Uniqueness. <i>IEEE/ACM Transactions on Networking</i> , 2007 , 15, 824-837	3.8	53
98	The Impact of Stochastic Noisy Feedback on Distributed Network Utility Maximization. <i>IEEE Transactions on Information Theory</i> , 2008 , 54, 645-665	2.8	48

97	Pricing-Based Decentralized Spectrum Access Control in Cognitive Radio Networks. <i>IEEE/ACM Transactions on Networking</i> , 2013 , 21, 522-535	3.8	47
96	Scheduling and Resource Allocation for SVC Streaming Over OFDM Downlink Systems. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2009 , 19, 1549-1555	6.4	45
95	To layer or not to layer: balancing transport and physical layers in wireless multihop networks		45
94	Quantifying Political Leaning from Tweets, Retweets, and Retweeters. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2016 , 28, 2158-2172	4.2	44
93	Mining MOOC Clickstreams: Video-Watching Behavior vs. In-Video Quiz Performance. <i>IEEE Transactions on Signal Processing</i> , 2016 , 64, 3677-3692	4.8	42
92	Fast-Convergent Federated Learning. <i>IEEE Journal on Selected Areas in Communications</i> , 2021 , 39, 201-218	14.2	41
91	Behavior-Based Grade Prediction for MOOCs Via Time Series Neural Networks. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2017 , 1-1	7.5	38
90	Utility-optimal random access without message passing. <i>IEEE Transactions on Wireless Communications</i> , 2009 , 8, 1073-1079	9.6	38
89	Individualization for Education at Scale: MIIC Design and Preliminary Evaluation. <i>IEEE Transactions on Learning Technologies</i> , 2015 , 8, 136-148	4	37
88	Utility-optimal random access: Reduced complexity, fast convergence, and robust performance. <i>IEEE Transactions on Wireless Communications</i> , 2009 , 8, 898-911	9.6	37
87	Throughput of random access without message passing 2008 ,		37
86	Revenue sharing among ISPs in two-sided markets 2011 ,		36
85	. <i>IEEE/ACM Transactions on Networking</i> , 2017 , 25, 406-419	3.8	33
84	Power Control for Cognitive Radio Networks: Axioms, Algorithms, and Analysis. <i>IEEE/ACM Transactions on Networking</i> , 2012 , 20, 878-891	3.8	33
83	Time-Dependent Broadband Pricing: Feasibility and Benefits 2011 ,		31
82	AMUSE: Empowering users for cost-aware offloading with throughput-delay tradeoffs 2013 ,		27
81	Nonconvex Optimization for Communication Networks. <i>Advances in Mechanics and Mathematics</i> , 2009 , 137-196	0.2	26
80	Balancing supply and demand of bandwidth in wireless cellular networks: utility maximization over powers and rates		26

79	Layering as Optimization Decomposition: Questions and Answers 2006 ,		24
78	Early Detection Prediction of Learning Outcomes in Online Short-Courses via Learning Behaviors. <i>IEEE Transactions on Learning Technologies</i> , 2019 , 12, 44-58	4	24
77	Resource Allocation over Network Dynamics without Timescale Separation 2010 ,		23
76	Average Message Delivery Time for Small-World Networks in the Continuum Limit. <i>IEEE Transactions on Information Theory</i> , 2010 , 56, 4447-4470	2.8	22
75	Internet of Things Session Management Over LTEBalancing Signal Load, Power, and Delay. <i>IEEE Internet of Things Journal</i> , 2016 , 3, 339-353	10.7	21
74	Equilibrium of Heterogeneous Congestion Control: Optimality and Stability. <i>IEEE/ACM Transactions on Networking</i> , 2010 , 18, 844-857	3.8	20
73	Implementing utility-optimal CSMA 2009 ,		20
72	Optimal Rate-Reliability-Delay Tradeoff in Networks with Composite Links. <i>IEEE Transactions on Communications</i> , 2009 , 57, 1390-1401	6.9	20
71	Distributed Nonconvex Power Control using Gibbs Sampling. <i>IEEE Transactions on Communications</i> , 2012 , 60, 3886-3898	6.9	19
70	Making 802.11 DCF Near-Optimal: Design, Implementation, and Evaluation. <i>IEEE/ACM Transactions on Networking</i> , 2016 , 24, 1745-1758	3.8	17
69	Elastic service availability: utility framework and optimal provisioning. <i>IEEE Journal on Selected Areas in Communications</i> , 2008 , 26, 55-65	14.2	17
68	On the Efficiency of Social Recommender Networks. <i>IEEE/ACM Transactions on Networking</i> , 2016 , 24, 2512-2524	3.8	16
67	Social learning networks: Efficiency optimization for MOOC forums 2016 ,		16
66	Customized Data Plans for Mobile Users: Feasibility and Benefits of Data Trading. <i>IEEE Journal on Selected Areas in Communications</i> , 2017 , 35, 949-963	14.2	15
65	A Survey of Client-Controlled HetNets for 5G. <i>IEEE Access</i> , 2017 , 5, 2842-2854	3.5	15
64	Congestion Control in Networks with Delay Sensitive Traffic 2007 ,		14
63	Virtualized Control Over Fog: Interplay Between Reliability and Latency. <i>IEEE Internet of Things Journal</i> , 2018 , 5, 5030-5045	10.7	14
62	Adaptive Fog-Based Output Security for Augmented Reality 2018 ,		13

61	Writing on colored paper		13
60	Cooperative content distribution and traffic engineering in an ISP network. <i>Performance Evaluation Review</i> , 2009 , 37, 239-250	0.4	13
59	Distributed robust optimization (DRO), part I: framework and example. <i>Optimization and Engineering</i> , 2014 , 15, 35-67	2.1	12
58	Reverse Engineering MAC		11
57	Delay of Social Search on Small-World Graphs. <i>Journal of Mathematical Sociology</i> , 2014 , 38, 1-46	1.2	10
56	Resource allocation for QoS provisioning in wireless ad hoc networks		10
55	Selfish Random Access over Wireless Channels with Multipacket Reception. <i>IEEE Journal on Selected Areas in Communications</i> , 2012 , 30, 138-152	14.2	9
54	Stability, Fairness, and Performance: A Flow-Level Study on Nonconvex and Time-Varying Rate Regions. <i>IEEE Transactions on Information Theory</i> , 2009 , 55, 3437-3456	2.8	9
53	Energy Conservation and Interference Mitigation: From Decoupling Property to Win-Win Strategy. <i>IEEE Transactions on Wireless Communications</i> , 2011 , 10, 3943-3955	9.6	9
52	Content-Aware Distortion-Fair Video Streaming in Networks 2008 ,		9
51	Re-examining Probabilistic Versus Deterministic Key Management 2007 ,		9
50	Optimal and suboptimal finger selection algorithms for MMSE RAKE receivers in impulse radio ultra-wideband systems		9
49	A genetic algorithm based finger selection scheme for UWB MMSE rake receivers		9
48	Globally Optimal Distributed Power Control for Nonconcave Utility Maximization 2010 ,		8
47	Energy Efficient Assisted GPS Measurement and Path Reconstruction for People Tracking 2010 ,		8
46	Equilibrium of Heterogeneous Congestion Control Protocols 2006 ,		8
45	Layering As Optimization Decomposition: Current Status and Open Issues 2006 ,		8
44	On the Efficiency of Online Social Learning Networks. <i>IEEE/ACM Transactions on Networking</i> , 2018 , 26, 2076-2089	3.8	7

43	QoS-revenue tradeoff with time-constrained ISP pricing 2010 ,		7
42	Auction-based resource allocation for multi-relay asynchronous cooperative networks. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , 2008 ,	1.6	7
41	Stability and Benefits of Suboptimal Utility Maximization. <i>IEEE/ACM Transactions on Networking</i> , 2011 , 19, 1194-1207	3.8	6
40	Energy-Efficient Video Transmission Scheduling for Wireless Peer-to-Peer Live Streaming 2009 ,		6
39	Distributed network control through sum product algorithm on graphs		6
38	Tradeoff between message and state information rates		6
37	Robust and QoS constrained optimization of power control in wireless cellular networks		6
36	Device Sampling for Heterogeneous Federated Learning: Theory, Algorithms, and Implementation 2021 ,		6
35	Decomposing Data Analytics in Fog Networks 2017 ,		5
34	Content aware optimization for video delivery over WCDMA. <i>Eurasip Journal on Wireless Communications and Networking</i> , 2012 , 2012,	3.2	5
33	Proxy-P2P Streaming under the Microscope: Fine-Grain Measurement of a Configurable Platform 2010 ,		5
32	Personalized Thread Recommendation for MOOC Discussion Forums. <i>Lecture Notes in Computer Science</i> , 2019 , 725-740	0.9	5
31	Characterizing task completion latencies in multi-point multi-quality fog computing systems. <i>Computer Networks</i> , 2020 , 181, 107526	5.4	5
30	Model Predictive Compression for Drone Video Analytics 2018 ,		5
29	Throughput and Delay Performance of DSL Broadband Access with Cross-Layer Dynamic Spectrum Management. <i>IEEE Transactions on Communications</i> , 2012 , 60, 2700-2711	6.9	4
28	Optimal Transmission Scheduling for Scalable Wireless Video Broadcast with Rateless Erasure Correction Code 2009 ,		4
27	Power Allocation in Distributed Detection with Wireless Sensor Networks 2006 ,		4
26	Layering As Optimization Decomposition: Framework and Examples		4

25	Distributed wide-area traffic management for cloud services. <i>Performance Evaluation Review</i> , 2012 , 40, 409-410	0.4	4
24	Corrections to Link-State Routing With Hop-By-Hop Forwarding Can Achieve Optimal Traffic Engineering [Dec 11 1717-1730]. <i>IEEE/ACM Transactions on Networking</i> , 2015 , 23, 1702-1703	3.8	3
23	Joint Beamforming and Power Control for Optimal SIR Assignment in Cellular Uplinks 2007 ,		3
22	Alternative decompositions and distributed algorithms for network utility maximization 2005 ,		3
21	The value of clustering in distributed estimation for sensor networks		3
20	Optimal sleeping: models and experiments for energy-delay tradeoff. <i>International Journal of Systems Science: Operations and Logistics</i> , 2017 , 4, 356-371	2.6	2
19	ProCMotive 2018 , 2, 1-31		2
18	Iterative resource pooling for bandwidth allocation in TDM-PON: algorithm, convergence and experimental evaluation. <i>Photonic Network Communications</i> , 2012 , 24, 138-150	1.7	2
17	Online Content Trading: Sharing Mart System and Auction Experiments 2010 ,		2
16	Measuring fairness: Axioms and applications 2011 ,		2
15	Multi-Path Key Establishment against REM Attacks in Wireless Ad Hoc Networks 2009 ,		2
14	Network resource allocation for competing multiple description transmissions. <i>IEEE Transactions on Communications</i> , 2010 , 58, 1493-1504	6.9	2
13	Distributed Optimization of Coupled Systems With Applications to Network Utility Maximization		2
12	Solving nonconvex power control problems in wireless networks: low SIR regime and distributed algorithms 2005 ,		2
11	Convex optimization of output link scheduling and active queue management in QoS constrained packet switches		2
10	Personalized augmented reality via fog-based imitation learning 2019 ,		2
9	Minimizing Age-of-Information in Heterogeneous Multi-Channel Systems 2021 ,		2
8	Pricing Tradeoffs for Data Analytics in Fog-Cloud Scenarios 2020 , 83-106		1

7	Stability of congestion control schemes with delay sensitive traffic 2008 ,		1
6	Expected message delivery time for small-world networks in the continuum limit 2008 ,		1
5	Distributed Utility Maximization for Network Coding Based Multicasting: A Critical Cut Approach		1
4	Intelligent Video Network Engineering with Distributed Optimization: Two Case Studies. <i>Studies in Computational Intelligence</i> , 2010 , 253-290	0.8	1
3	Joint rate control and scheduling for wireless uplink video streaming. <i>Journal of Zhejiang University: Science A</i> , 2006 , 7, 801-810		2.1
2	Mind Your Own Bandwidth24-51		
1	A Novel Framework for Cost Constrained Network Sharing. <i>IEEE Transactions on Mobile Computing</i> , 2022 , 1-1		4.6