Ravi R Mazumdar

List of Publications by Year
in descending order

134 papers	3,238 citations	304743 22 h-index	206112 48 g-index
135 all docs	135 docs citations	135 times ranked	1706 citing authors

#	Article	IF	Citations
1	A game theoretic framework for bandwidth allocation and pricing in broadband networks. IEEE/ACM Transactions on Networking, 2000, 8, 667-678.	3.8	576
2	On the complexity of scheduling in wireless networks. , 2006, , .		231
3	Non-convex optimization and rate control for multi-class services in the Internet. IEEE/ACM Transactions on Networking, 2005, 13, 827-840.	3.8	223
4	Delay and Capacity Trade-Offs in Mobile Ad Hoc Networks: A Global Perspective. IEEE/ACM Transactions on Networking, 2007, 15, 981-992.	3.8	200
5	Degenerate delay-capacity tradeoffs in ad-hoc networks with Brownian mobility. IEEE Transactions on Information Theory, 2006, 52, 2777-2784.	2.4	115
6	Joint resource allocation and base-station assignment for the downlink in CDMA networks. IEEE/ACM Transactions on Networking, 2006, 14, 1-14.	3.8	112
7	Downlink power allocation for multi-class wireless systems. IEEE/ACM Transactions on Networking, 2005, 13, 854-867.	3.8	109
8	Delay and Capacity Trade-Offs in Mobile Ad Hoc Networks: A Global Perspective. , 2006, , .		93
9	Hybrid sensor networks. , 2005, , .		88
10	Opportunistic power scheduling for dynamic multi-server wireless systems. IEEE Transactions on Wireless Communications, 2006, 5, 1506-1515.	9.2	87
11	Scaling laws for capacity and delay in wireless ad hoc networks with random mobility. , 2004, , .		77
12	Wavelet representations of stochastic processes and multiresolution stochastic models. IEEE Transactions on Signal Processing, 1994, 42, 1640-1652.	5.3	61
13	Cell loss asymptotics for buffers fed with a large number of independent stationary sources. Journal of Applied Probability, 1999, 36, 86-96.	0.7	61
14	On the Complexity of Scheduling in Wireless Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	2.4	60
15	A game theoretic perspective to flow control in telecommunication networks. Journal of the Franklin Institute, 1992, 329, 383-402.	3.4	59
16	On the correlation structure of the wavelet coefficients of fractional Brownian motion. IEEE Transactions on Information Theory, 1994, 40, 1609-1612.	2.4	55
17	Joint Congestion Control and Distributed Scheduling for Throughput Guarantees in Wireless Networks. , 2007, , .		52
18	A Case for Hybrid Sensor Networks. IEEE/ACM Transactions on Networking, 2008, 16, 1121-1132.	3.8	46

#	Article	IF	Citations
19	Cell loss asymptotics for buffers fed with a large number of independent stationary sources. Journal of Applied Probability, 1999, 36, 86-96.	0.7	43
20	Blocking probabilities for large multirate erlang loss systems. Advances in Applied Probability, 1993, 25, 997-1009.	0.7	42
21	Analysis of Randomized Join-the-Shortest-Queue (JSQ) Schemes in Large Heterogeneous Processor-Sharing Systems. IEEE Transactions on Control of Network Systems, 2016, 3, 116-126.	3.7	41
22	Joint Opportunistic Power Scheduling and End-to-End Rate Control for Wireless Ad Hoc Networks. IEEE Transactions on Vehicular Technology, 2007, 56, 801-809.	6.3	39
23	Maximum Weighted Matching with Interference Constraints. , 0, , .		37
24	Design of Surveillance Sensor Grids with a Lifetime Constraint. Lecture Notes in Computer Science, 2004, , 263-275.	1.3	36
25	Event and time averages: a review. Advances in Applied Probability, 1992, 24, 377-411.	0.7	33
26	Event and time averages: a review. Advances in Applied Probability, 1992, 24, 377-411.	0.7	31
27	Mean field and propagation of chaos in multi-class heterogeneous loss models. Performance Evaluation, 2015, 91, 117-131.	1.2	27
28	Joint congestion control and distributed scheduling for throughput guarantees in wireless networks. ACM Transactions on Modeling and Computer Simulation, 2010, 21, 1-25.	0.8	24
29	Randomized Assignment of Jobs to Servers in Heterogeneous Clusters of Shared Servers for Low Delay. Stochastic Systems, 2016, 6, 90-131.	1.1	24
30	The Power of Randomized Routing in Heterogeneous Loss Systems. , 2015, , .		20
31	Estimating traffic parameters in queueing systems with local information. Performance Evaluation, 1998, 32, 217-230.	1.2	18
32	On rate conservation for non-stationary processes. Journal of Applied Probability, 1991, 28, 762-770.	0.7	17
33	Asymptotic analysis of GPS systems fed by heterogeneous long-tailed sources. , 0, , .		16
34	On the Optimal Number of Active Receivers in Fading Broadcast Channels. IEEE Transactions on Information Theory, 2008, 54, 1323-1327.	2.4	16
35	On the Capacity of <i>Ad Hoc</i> Networks Under Random Packet Losses. IEEE Transactions on Information Theory, 2009, 55, 2494-2498.	2.4	15
36	Blocking probabilities for large multirate erlang loss systems. Advances in Applied Probability, 1993, 25, 997-1009.	0.7	14

#	Article	IF	Citations
37	Opportunistic power scheduling for multi-server wireless systems with minimum performance constraints. , 0, , .		13
38	On Powers of Gaussian White Noise. IEEE Transactions on Information Theory, 2011, 57, 7629-7634.	2.4	13
39	Scale functions of LÃ©vy processes and busy periods of finite-capacity M/GI/1 queues. Journal of Applied Probability, 2004, 41, 1145-1156.	0.7	12
40	Tail Asymptotics for HOL Priority Queues Handling a Large Number of Independent Stationary Sources. Queueing Systems, 2002, 40, 183-204.	0.9	11
41	Many Sources Asymptotics for Networks with Small Buffers. Queueing Systems, 2004, 46, 129-147.	0.9	11
42	On the Stability of Finite Queue Slotted Aloha Protocol. IEEE Transactions on Information Theory, 2013, 59, 6357-6366.	2.4	11
43	Voter and Majority Dynamics with Biased and Stubborn Agents. Journal of Statistical Physics, 2020, 181, 1239-1265.	1.2	11
44	On pathwise rate conservation for a class of semi-martingales. Stochastic Processes and Their Applications, 1993, 47, 119-130.	0.9	10
45	Title is missing!. Queueing Systems, 1998, 28, 283-291.	0.9	10
46	User capacity scaling laws for fading multiple-access channels. IEEE Transactions on Wireless Communications, 2009, 8, 4498-4507.	9.2	10
47	On Distributed Function Computation in Structure-Free Random Wireless Networks. IEEE Transactions on Information Theory, 2014, 60, 432-442.	2.4	10
48	Rate-based randomized routing in large heterogeneous processor sharing systems. , 2014, , .		10
49	The mean-field behavior of processor sharing systems with general job lengths under the SQ(<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll") Tj ETQq1 1 0.784314 rgBT /O 127-128. 120-153.	1.2	10
50	Performance Modeling, Loss Networks, and Statistical Multiplexing. Synthesis Lectures on Communication Networks, 2009, 2, 1-151.	6.3	10
51	Forward equations for reflected diffusions with jumps. Applied Mathematics and Optimization, 1996, 33, 81-102.	1.6	9
52	Scale functions of LÃ©vy processes and busy periods of finite-capacity M/GI/1 queues. Journal of Applied Probability, 2004, 41, 1145-1156.	0.7	9
53	Choosing among heterogeneous server clouds. Queueing Systems, 2017, 85, 1-29.	0.9	9
54	On the analysis of exponential queuing systems with randomly changing arrival rates: Stability conditions and finite buffer scheme with a resume level. Performance Evaluation, 1990, 11, 283-292.	1.2	8

#	Article	IF	Citations
55	On rate conservation for non-stationary processes. Journal of Applied Probability, 1991, 28, 762-770.	0.7	8
56	On pathwise behavior of queues. Operations Research Letters, 1992, 12, 263-270.	0.7	8
57	Excursions of the workload process in G/GI/1 queues. Stochastic Processes and Their Applications, 1995, 58, 139-154.	0.9	8
58	Rate Conservation Laws for Multidimensional Processes of Bounded Variation with Applications to Priority Queueing Systems. Methodology and Computing in Applied Probability, 2004, 6, 135-159.	1.2	8
59	Reduced-Dimension Linear Transform Coding of Distributed Correlated Signals With Incomplete Observations. IEEE Transactions on Information Theory, 2009, 55, 2848-2858.	2.4	8
60	Binary Opinion Dynamics with Biased Agents and Agents with Different Degrees of Stubbornness. , 2016, , .		8
61	On heavy traffic approximations for transient characteristics of M/M/â˜ queues. Journal of Applied Probability, 1996, 33, 490-506.	0.7	7
62	New reduced load heuristic for computing blocking in large multirate loss networks. IET Communications, 1996, 143, 206.	1.0	7
63	Extremal traffic and bounds for the mean delay of multiplexed regulated traffic streams. , 0, , .		7
64	Providing QoS in Large Networks: Statistical Multiplexing and Admission Control. , 2005, , 137-167.		7
65	Mean-Field Analysis of Loss Models with Mixed-Erlang Distributions under Power-of-d Routing. , 2017, , .		7
66	Comparison Results for Reflected Jump-diffusions in the Orthant with Variable Reflection Directions and Stability Applications. Electronic Journal of Probability, 2008, 13, .	1.0	7
67	Boundary behavior and product-form stationary distributions of jump diffusions in the orthant with state-dependent reflections. Advances in Applied Probability, 2008, 40, 529-547.	0.7	7
68	Cell loss asymptotics in priority queues accessed by a large number of independent stationary sources. , 1999, , .		6
69	Selected papers from the First Workshop on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOptâ€™2003). Performance Evaluation, 2004, 57, 423-425.	1.2	6
70	The Burstiness Behavior of Regulated Flows in Networks. Lecture Notes in Computer Science, 2005, , 918-929.	1.3	6
71	Buffer overflow asymptotics for multiplexed regulated traffic. Performance Evaluation, 2008, 65, 555-572.	1.2	6
72	Pathwise comparison results for stochastic fluid networks. Queueing Systems, 2010, 66, 155-168.	0.9	6

#	Article	IF	Citations
73	Congestion in large balanced multirate networks. Queueing Systems, 2013, 74, 333-368.	0.9	6
74	Loss asymptotics in large buffers fed by heterogeneous long-tailed sources. , 2000, 32, 1168-1189.		6
75	On product-form stationary distributions for reflected diffusions with jumps in the positive orthant. Advances in Applied Probability, 2005, 37, 212-228.	0.7	6
76	On Radon-Nikodym derivatives of finitely-additive measures induced by nonlinear transformations on hilbert space. Nonlinear Analysis: Theory, Methods & Applications, 1993, 21, 879-902.	1.1	5
77	On heavy traffic approximations for transient characteristics of M/M/âˆž queues. Journal of Applied Probability, 1996, 33, 490-506.	0.7	5
78	Loss asymptotics in large buffers fed by heterogeneous long-tailed sources. Advances in Applied Probability, 2000, 32, 1168-1189.	0.7	5
79	Control of wireless networks with flow level dynamics under constant time scheduling. Wireless Networks, 2010, 16, 1355-1372.	3.0	5
80	Analysis of the fluid weighted fair queueing system. Journal of Applied Probability, 2003, 40, 180-199.	0.7	5
81	On pathwise behavior of multiserver queues. Queueing Systems, 1994, 15, 279-288.	0.9	4
82	On pathwise analysis and existence of empirical distributions for G/G/1 queues. Stochastic Processes and Their Applications, 1997, 67, 55-67.	0.9	4
83	Upper bounds for blocking probabilities in large multiâ€rate loss networks. Telecommunication Systems, 1998, 9, 23-39.	2.5	4
84	On product-form stationary distributions for reflected diffusions with jumps in the positive orthant. Advances in Applied Probability, 2005, 37, 212-228.	0.7	4
85	On the convergence of the spectrum of finite order approximations of stationary time series. Journal of Multivariate Analysis, 2013, 121, 1-21.	1.0	4
86	Fluctuations Around the Mean-Field for a Large Scale Erlang Loss System Under the SQ(d) Load Balancing. , 2019, , .		4
87	A note on the pathwise version of Little's formula. Operations Research Letters, 1993, 14, 19-24.	0.7	3
88	Some recent results in finitely additive white noise theory. Acta Applicandae Mathematicae, 1994, 35, 27-47.	1.0	3
89	Reciprocal processes on a tree-modeling and estimation issues. IEEE Transactions on Automatic Control, 1995, 40, 330-335.	5.7	3
90	Some performance issues in ATM block transfer with delayed transmission. Teletraffic Science and Engineering, 1997, 2, 435-444.	0.4	3

#	Article	IF	Citations
91	Analysis of the fluid weighted fair queueing system. Journal of Applied Probability, 2003, 40, 180-199.	0.7	3
92	Hybrid sensor and mesh networks: paradigms for fair and energy efficient communication. , 2006, , .		3
93	Existence and characterization of product-form invariant distributions for state-dependent stochastic networks in the heavy-traffic diffusion limit. Queueing Systems, 2008, 58, 3-27.	0.9	3
94	User Capacity of Rician and Nakagami Fading Broadcast Channels. , 2008, , .		3
95	Heavy traffic approximation for the stationary distribution of stochastic fluid networks. Queueing Systems, 2012, 70, 3-21.	0.9	3
96	Insensitivity of the mean field limit of loss systems under SQ(d) routeing. Advances in Applied Probability, 2019, 51, 1027-1066.	0.7	3
97	Direct modeling of white noise in stochastic systems. , 1991, , 1-30.		2
98	Rate Control and Dynamic Dimensioning of Multihop Wireless Networks. , 2006, , .		2
99	User Capacity of Fading Multi-User Channels with a Minimum Rate Constraint. , 2008, , .		2
100	Boundary behavior and product-form stationary distributions of jump diffusions in the orthant with state-dependent reflections. Advances in Applied Probability, 2008, 40, 529-547.	0.7	2
101	Predictable revenue under processor sharing. , 2012, , .		2
102	Inferring causality in networks of WSS processes by pairwise estimation methods. , 2013, , .		2
103	Randomized routing schemes for large processor sharing systems with multiple service rates. Performance Evaluation Review, 2014, 42, 555-556.	0.6	2
104	A Stochastic Ordering Property for Leaky Bucket Regulated Flows in Packet Networks. Journal of Applied Probability, 2007, 44, 332-348.	0.7	2
105	Majority Rule Based Opinion Dynamics with Biased and Stubborn Agents. , 2016, , .		2
106	Multilevel flow control in telecommunication networks. Journal of the Franklin Institute, 1994, 331, 417-433.	3.4	1
107	On the relation between filter maps and correction factors in likelihood ratios. IEEE Transactions on Information Theory, 1995, 41, 833-836.	2.4	1
108	On input/output maps for nonlinear systems via continuity in a locally convex topology. Systems and Control Letters, 1995, 24, 273-281.	2.3	1

#	Article	IF	Citations
109	Large Buffer Asymptotics for Fluid Queues with Heterogeneous M/G/Â Weibullian Inputs. Queueing Systems, 2003, 45, 333-356.	0.9	1
110	An ergodic result for queue length processes of state-dependent queueing networks in the heavy-traffic diffusion limit. , 2008, , .		1
111	On the asymptotic behavior of the spectral density of autoregressive estimates. , 2011, , .		1
112	Randomized routing schemes for large processor sharing systems with multiple service rates. , 2014, , .		1
113	Conditional Sojourn times and the volatility of payment schemes for bandwidth sharing in packet networks. Journal of Applied Probability, 2015, 52, 962-980.	0.7	1
114	On Occupancy Based Randomized Routing Schemes in Large Systems of Shared Servers. , 2018, , .		1
115	Sensitivity of mean-field fluctuations in Erlang loss models with randomized routing. Journal of Applied Probability, 2021, 58, 428-448.	0.7	1
116	Optimal Bidding Strategies for Online Ad Auctions with Overlapping Targeting Criteria. Proceedings of the ACM on Measurement and Analysis of Computing Systems, 2020, 4, 1-55.	1.8	1
117	The BeÅ^es equations for the distribution of excursions for general storage processes. Journal of Applied Probability, 1994, 31, 418-429.	0.7	0
118	The BeÅ^es equations for the distribution of excursions for general storage processes. Journal of Applied Probability, 1994, 31, 418-429.	0.7	0
119	Traffic engineering in ATM networks: Current trends and future issues. Sadhana - Academy Proceedings in Engineering Sciences, 1994, 19, 1005-1025.	1.3	0
120	A representation result for nonlinear filter maps in a white noise framework. IEEE Transactions on Automatic Control, 1999, 44, 124-129.	5.7	0
121	Randomized Algorithms for Cross-Layer Network Control. , 2006, , .		0
122	Guest editorial on selected papers from WiOptâ€™05. Wireless Networks, 2008, 14, 569-571.	3.0	0
123	Appropriate control of wireless networks with flow level dynamics. , 2008, , .		0
124	Some new results on the stability of Markovian stochastic network models. , 2010, , .		0
125	On the convergence of the spectral density of autoregressive approximations via empirical covariance estimates. , 2012, , .		0
126	Performance Modeling, Stochastic Networks, and Statistical Multiplexing, second edition. Synthesis Lectures on Communication Networks, 2013, 6, 1-211.	6.3	0

#	Article	IF	Citations
127	Conditional Sojourn times and the volatility of payment schemes for bandwidth sharing in packet networks. Journal of Applied Probability, 2015, 52, 962-980.	0.7	0
128	Pricing schemes in processor sharing systems. Telecommunication Systems, 2016, 63, 421-435.	2.5	0
129	In Memory of A.V. Balakrishnan (December 4, 1922-March 17, 2015) [Obituary]. IEEE Control Systems, 2016, 36, 99-100.	0.8	0
130	Effects of shadowing on the number of active users in random multi-user channels. Wireless Networks, 2016, 22, 2501-2509.	3.0	0
131	Network Calculus for Mean Delay Analysis Through a Network. , 2018, , .		0
132	Heavy traffic steady state approximations in stochastic networks with Lévy inputs. , 2009, , .		0
133	The Mean-field Behavior of Processor Sharing Systems with General Job Lengths Under the SQ(d) Policy. Performance Evaluation Review, 2019, 46, 54-55.	0.6	0
134	Real-time Bidding for Time Constrained Impression Contracts in First and Second Price Auctions - Theory and Algorithms. Proceedings of the ACM on Measurement and Analysis of Computing Systems, 2021, 5, 1-37.	1.8	0