Baochun Li

List of Publications by Year
in descending order

170 papers	4,206 citations	471509 17 h-index	361022 35 g-index
170 all docs	170 docs citations	170 times ranked	3080 citing authors

#	Article	IF	Citations
1	Status-Aware Signed Heterogeneous Network Embedding With Graph Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2024, PP, 1-13.	11.3	6
2	Matrix Gaussian Mechanisms for Differentially-Private Learning. IEEE Transactions on Mobile Computing, 2023, 22, 1036-1048.	5.8	3
3	Accelerating Distributed Learning in Non-Dedicated Environments. IEEE Transactions on Cloud Computing, 2023, 11, 515-531.	4.4	3
4	Differentially-Private Deep Learning With Directional Noise. IEEE Transactions on Mobile Computing, 2023, 22, 2599-2612.	5.8	1
5	Differential Privacy for Tensor-Valued Queries. IEEE Transactions on Information Forensics and Security, 2022, 17, 152-164.	6.9	6
6	Optimizing Network Transfers for Data Analytic Jobs Across Geo-Distributed Datacenters. IEEE Transactions on Parallel and Distributed Systems, 2022, 33, 403-414.	5.6	8
7	Low-Latency Network-Adaptive Error Control for Interactive Streaming. IEEE Transactions on Multimedia, 2022, 24, 1691-1706.	7.2	6
8	C^2: A Capacity-Centric Architecture Toward Future Wireless Networking. IEEE Transactions on Wireless Communications, 2022, 21, 8134-8147.	9.2	5
9	Corrections to â€œOptimal Streaming Erasure Codes Over the Three-Node Relay Networkâ€. IEEE Transactions on Information Theory, 2022, 68, 6527-6527.	2.4	3
10	Pareto: Fair Congestion Control With Online Reinforcement Learning. IEEE Transactions on Network Science and Engineering, 2022, 9, 3731-3748.	6.4	5
11	Towards Optimal Multi-Modal Federated Learning on Non-IID Data with Hierarchical Gradient Blending. , 2022, , .		8
12	Distributed Inference with Deep Learning Models across Heterogeneous Edge Devices. , 2022, , .		14
13	How Asynchronous can Federated Learning Be?. , 2022, , .		6
14	Low Latency Big Data Processing without Prior Information. IEEE Transactions on Cloud Computing, 2021, 9, 1521-1534.	4.4	3
15	Demand-Aware Erasure Coding for Distributed Storage Systems. IEEE Transactions on Cloud Computing, 2021, 9, 532-545.	4.4	9
16	Matchmaker: Stable Task Assignment With Bounded Constraints for Crowdsourcing Platforms. IEEE Internet of Things Journal, 2021, 8, 1599-1610.	8.7	10
17	Privacy-Preserving Similarity Search With Efficient Updates in Distributed Key-Value Stores. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1072-1084.	5.6	8
18	A Case for Pricing Bandwidth: Sharing Datacenter Networks With Cost Dominant Fairness. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1256-1269.	5.6	5

#	Article	IF	Citations
19	Joint Traffic-Aware Consolidated Middleboxes Selection and Routing in Distributed SDNs. IEEE Transactions on Network and Service Management, 2021, 18, 1415-1429.	4.9	5
20	Silhouette: Efficient Cloud Configuration Exploration for Large-Scale Analytics. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 2049-2061.	5.6	9
21	Cross-Cluster Federated Learning and Blockchain for Internet of Medical Things. IEEE Internet of Things Journal, 2021, 8, 15776-15784.	8.7	44
22	Characterizing Performance Limits in Payment Channel Networks. IEEE Transactions on Knowledge and Data Engineering, 2021, , 1-1.	5.7	0
23	Mitigating Bottlenecks in Wide Area Data Analytics via Machine Learning. IEEE Transactions on Network Science and Engineering, 2020, 7, 155-166.	6.4	4
24	Circa: collaborative code offloading among multiple mobile devices. Wireless Networks, 2020, 26, 823-841.	3.0	4
25	Enabling Encrypted Boolean Queries in Geographically Distributed Databases. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 634-646.	5.6	12
26	Razor: Scaling Backend Capacity for Mobile Applications. IEEE Transactions on Mobile Computing, 2020, 19, 1702-1714.	5.8	1
27	Optimal Streaming Erasure Codes Over the Three-Node Relay Network. IEEE Transactions on Information Theory, 2020, 66, 2696-2712.	2.4	17
28	Optimal Multiplexed Erasure Codes for Streaming Messages With Different Decoding Delays. IEEE Transactions on Information Theory, 2020, 66, 4007-4018.	2.4	4
29	Turbo: Dynamic and Decentralized Global Analytics via Machine Learning. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1372-1386.	5.6	5
30	<i>Promenade</i>: Proportionally Fair Multipath Rate Control in Datacenter Networks with Random Network Coding. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 2536-2546.	5.6	10
31	Software-Defined Wide Area Network (SD-WAN): Architecture, Advances and Opportunities. , 2019, , .		65
32	Optimal Streaming Codes for Channels With Burst and Arbitrary Erasures. IEEE Transactions on Information Theory, 2019, 65, 4274-4292.	2.4	45
33	Differentially-Private Deep Learning from an optimization Perspective. , 2019, , .		23
34	Optimal Streaming Erasure Codes over the Three-Node Relay Network. , 2019, , .		4
35	Spear: Optimized Dependency-Aware Task Scheduling with Deep Reinforcement Learning. , 2019, , .		37
36	Signed-PageRank: An Efficient Influence Maximization Framework for Signed Social Networks. IEEE Transactions on Knowledge and Data Engineering, 2019, , 1-1.	5.7	22

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37	Optimal Multiplexed Erasure Codes for Streaming Messages with Different Decoding Delays. , 2019, , .		2
38	Toward Secure and Scalable Computation in Internet of Things Data Applications. IEEE Internet of Things Journal, 2019, 6, 3753-3763.	8.7	9
39	Wide-Area Spark Streaming: Automated Routing and Batch Sizing. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 1434-1448.	5.6	11
40	Enabling Encrypted Rich Queries in Distributed Key-Value Stores. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 1283-1297.	5.6	23
41	Scheduling Jobs across Geo-Distributed Datacenters with Max-Min Fairness. IEEE Transactions on Network Science and Engineering, 2019, 6, 488-500.	6.4	25
42	Mist: Efficient Dissemination of Erasure-Coded Data in Data Centers. IEEE Transactions on Emerging Topics in Computing, 2019, 7, 468-480.	4.6	1
43	<i>Adia</i>: Achieving High Link Utilization with Coflow-Aware Scheduling in Data Center Networks. IEEE Transactions on Cloud Computing, 2019, 7, 431-441.	4.4	6
44	Ensuring Minimum Spectrum Requirement in Matching-Based Spectrum Allocation. IEEE Transactions on Mobile Computing, 2018, 17, 2028-2040.	5.8	15
45	Time- and Cost- Efficient Task Scheduling across Geo-Distributed Data Centers. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 705-718.	5.6	57
46	Efficient Performance-Centric Bandwidth Allocation with Fairness Tradeoff. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 1693-1706.	5.6	6
47	Stable Combinatorial Spectrum Matching. , 2018, , .		4
48	A Hierarchical Synchronous Parallel Model for Wide-Area Graph Analytics. , 2018, , .		7
49	FlowTime: Dynamic Scheduling of Deadline-Aware Workflows and Ad-Hoc Jobs. , 2018, , .		13
50	Parallelism-Aware Locally Repairable Code for Distributed Storage Systems. , 2018, , .		3
51	Multi-Client Searchable Encryption over Distributed Key-Value Stores. , 2017, , .		3
52	<italic>Stemflow:</italic> Software-Defined Inter-Datacenter Overlay as a Service. IEEE Journal on Selected Areas in Communications, 2017, 35, 2563-2573.	14.0	4
53	Job Scheduling without Prior Information in Big Data Processing Systems. , 2017, , .		12
54	On Data Parallelism of Erasure Coding in Distributed Storage Systems. , 2017, , .		6

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55	Task assignment with guaranteed quality for crowdsourcing platforms. , 2017, , .		3
56	Optimizing Shuffle in Wide-Area Data Analytics. , 2017, , .		12
57	Clockwork: Scheduling Cloud Requests in Mobile Applications. , 2017, , .		0
58	Beehive: Erasure Codes for Fixing Multiple Failures in Distributed Storage Systems. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 1257-1270.	5.6	18
59	Privacy-preserving inference in crowdsourcing systems. , 2017, , .		1
60	Optimal multicast in virtualized datacenter networks with software switches. , 2017, , .		4
61	Demo abstract: Stemflow: Inter-datacenter overlay as a service. , 2017, , .		0
62	Secure multi-client data access with boolean queries in distributed key-value stores. , 2017, , .		6
63	Custody: Towards Data-Aware Resource Sharing in Cloud-Based Big Data Processing. , 2016, , .		2
64	Maximizing container-based network isolation in parallel computing clusters. , 2016, , .		3
65	Chronos: Meeting coflow deadlines in data center networks. , 2016, , .		9
66	Zebra: Demand-aware erasure coding for distributed storage systems. , 2016, , .		7
67	Software-defined inter-domain routing revisited. , 2016, , .		6
68	Tailor: Trimming Coflow Completion Times in Datacenter Networks. , 2016, , .		8
69	Many-to-many matching for combinatorial spectrum trading. , 2016, , .		7
70	Flutter: Scheduling tasks closer to data across geo-distributed datacenters. , 2016, , .		55
71	An Asynchronous Fixed-Point Algorithm for Resource Sharing With Coupled Objectives. IEEE/ACM Transactions on Networking, 2016, 24, 2593-2606.	3.8	7
72	Presto: Towards fair and efficient HTTP adaptive streaming from multiple servers. , 2015, , .		14

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73	Temperature Aware Workload Managementin Geo-Distributed Data Centers. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 1743-1753.	5.6	41
74	Spot Transit: Cheaper Internet Transit for Elastic Traffic. IEEE Transactions on Services Computing, 2015, 8, 768-781.	4.6	4
75	Rado: A Randomized Auction Approach for Data Offloading via D2D Communication. , 2015, , .		17
76	Optimal Online Multi-Instance Acquisition in IaaS Clouds. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 3407-3419.	5.6	29
77	Designing Truthful Spectrum Auctions for Multi-hop Secondary Networks. IEEE Transactions on Mobile Computing, 2015, 14, 316-327.	5.8	22
78	Dynamic Cloud Instance Acquisition via IaaS Cloud Brokerage. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 1580-1593.	5.6	39
79	Circa: Offloading collaboratively in the same vicinity with iBeacons. , 2015, , .		3
80	Keyword Search over Shared Cloud Data without Secure Channel or Authority. , 2015, , .		5
81	Panda: Public Auditing for Shared Data with Efficient User Revocation in the Cloud. IEEE Transactions on Services Computing, 2015, 8, 92-106.	4.6	248
82	RepFlow: Minimizing flow completion times with replicated flows in data centers. , 2014, , .		77
83	iAware: Making Live Migration of Virtual Machines Interference-Aware in the Cloud. IEEE Transactions on Computers, 2014, 63, 3012-3025.	3.4	170
84	TinyFlow: Breaking elephants down into mice in data center networks. , 2014, , .		27
85	Congestion-aware internet pricing for media streaming. , 2014, , .		12
86	Low complexity multi-resource fair queueing with bounded delay. , 2014, , .		18
87	An Optimization Framework for XOR-Assisted Cooperative Relaying in Cellular Networks. IEEE Transactions on Mobile Computing, 2014, 13, 979-991.	5.8	5
88	Cooperative repair with minimum-storage regenerating codes for distributed storage. , 2014, , .		40
89	Price Competition in an Oligopoly Market with Multiple IaaS Cloud Providers. IEEE Transactions on Computers, 2014, 63, 59-73.	3.4	111
90	Certificateless public auditing for data integrity in the cloud. , 2013, , .		78

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91	Joint request mapping and response routing for geo-distributed cloud services. , 2013, , .		125
92	Multi-Resource Round Robin: A low complexity packet scheduler with Dominant Resource Fairness. , 2013, , .		22
93	Resource Allocation with Flexible Channel Cooperation in Cognitive Radio Networks. IEEE Transactions on Mobile Computing, 2013, 12, 957-970.	5.8	62
94	Multi-resource generalized processor sharing for packet processing. , 2013, , .		21
95	Celerity: A Low-Delay Multi-Party Conferencing Solution. IEEE Journal on Selected Areas in Communications, 2013, 31, 155-164.	14.0	7
96	Revenue maximization with dynamic auctions in IaaS cloud markets. , 2013, , .		59
97	Public auditing for shared data with efficient user revocation in the cloud. , 2013, , .		115
98	Dynamic Cloud Resource Reservation via Cloud Brokerage. , 2013, , .		76
99	Cooperative pipelined regeneration in distributed storage systems. , 2013, , .		5
100	Core-selecting combinatorial auction design for secondary spectrum markets. , 2013, , .		16
101	An efficient distributed algorithm for resource allocation in large-scale coupled systems. , 2013, , .		20
102	A theory of cloud bandwidth pricing for video-on-demand providers. , 2012, , .		51
103	Socialize spontaneously with mobile applications. , 2012, , .		3
104	Maximizing revenue with dynamic cloud pricing: The infinite horizon case. , 2012, , .		56
105	Truthful spectrum auction design for secondary networks. , 2012, , .		12
106	Rise and fall of the peer-to-peer empire. Tsinghua Science and Technology, 2012, 17, 1-16.	6.1	5
107	Towards Optimal Capacity Segmentation with Hybrid Cloud Pricing. , 2012, , .		63
108	Oruta: Privacy-Preserving Public Auditing for Shared Data in the Cloud. , 2012, , .		99

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109	A General and Practical Datacenter Selection Framework for Cloud Services. , 2012, , .		23
110	Postcard: Minimizing Costs on Inter-Datacenter Traffic with Store-and-Forward. , 2012, , .		34
111	Bargaining towards maximized resource utilization in video streaming datacenters. , 2012, , .		15
112	Gmatch: Secure and privacy-preserving group matching in social networks. , 2012, , .		9
113	Cost efficient datacenter selection for cloud services. , 2012, , .		19
114	Quality-assured cloud bandwidth auto-scaling for video-on-demand applications. , 2012, , .		136
115	Egalitarian stable matching for VM migration in cloud computing. , 2011, , .		36
116	Group Strategyproof Multicast in Wireless Networks. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 708-715.	5.6	5
117	Seen as stable marriages. , 2011, , .		34
118	Pipelined Regeneration with Regenerating Codes for Distributed Storage Systems. , 2011, , .		9
119	On the Market Power of Network Coding in P2P Content Distribution Systems. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 2063-2070.	5.6	6
120	Stir: Spontaneous social peer-to-peer streaming. , 2011, , .		7
121	YMMV: Multiple Session Multicast with MIMO. , 2011, , .		2
122	Asymptotic optimality of randomized peer-to-peer broadcast with network coding. , 2011, , .		7
123	District: Embracing local markets in truthful spectrum double auctions. , 2011, , .		33
124	SlideOR: Online Opportunistic Network Coding in Wireless Mesh Networks. , 2010, , .		55
125	Peer-assisted VoD prefetching in double auction markets. , 2010, , .		27
126	Incorporating Random Linear Network Coding for Peer-to-Peer Network Diagnosis. , 2010, , .		4

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127	Tree-structured Data Regeneration in Distributed Storage Systems with Regenerating Codes. , 2010, , .		68
128	A Secondary Market for Spectrum. , 2010, , .		72
129	Topological Properties Affect the Power of Network Coding in Decentralized Broadcast. , 2010, , .		4
130	Haste: Practical Online Network Coding in a Multicast Switch. , 2010, , .		4
131	Cooperative Resource Management in Cognitive WiMAX with Femto Cells. , 2010, , .		40
132	Priority Random Linear Codes in Distributed Storage Systems. IEEE Transactions on Parallel and Distributed Systems, 2009, 20, 1653-1667.	5.6	16
133	Quality of service in heterogeneous wired/wireless networks. Wireless Networks, 2009, 15, 1-2.	3.0	0
134	Pushing the Envelope: Extreme Network Coding on the GPU. , 2009, , .		24
135	Tree-structured data regeneration with network coding in distributed storage systems. , 2009, , .		12
136	Understanding the Performance Gap Between Pull-Based Mesh Streaming Protocols and Fundamental Limits. , 2009, , .		43
137	Dynamic Multicast in Overlay Networks with Linear Capacity Constraints. IEEE Transactions on Parallel and Distributed Systems, 2009, 20, 925-939.	5.6	14
138	Cooperative multicast scheduling with random network coding in WiMAX. , 2009, , .		22
139	Joint Network Coding and Subcarrier Assignment in OFDIMA-Based Wireless Networks. , 2008, , .		12
140	rStream: Resilient and Optimal Peer-to-Peer Streaming with Rateless Codes. IEEE Transactions on Parallel and Distributed Systems, 2008, 19, 77-92.	5.6	56
141	Circumventing Server Bottlenecks: Indirect Large-Scale P2P Data Collection. , 2008, , .		6
142	CodeOR: Opportunistic routing in wireless mesh networks with segmented network coding. Network Protocols (ICNP), Proceedings of the IEEE International Conference on, 2008, , .	0.0	44
143	On the Benefits of Network Coding in Multi-Channel Wireless Networks. , 2008, , .		16
144	Differentiated Data Persistence with Priority Random Linear Codes. , 2007, , .		36

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145	On the Resilience-Complexity Tradeoff of Network Coding in Dynamic P2P Networks. IEEE International Workshop on Quality of Service, 2007, , .	0.0	11
146	Magellan: Charting Large-Scale Peer-to-Peer Live Streaming Topologies. , 2007, , .		49
147	Echelon: Peer-to-Peer Network Diagnosis with Network Coding. IEEE International Workshop on Quality of Service, 2006, , .	0.0	8
148	Distributed Minimum Energy Data Gathering and Aggregation in Sensor Networks. , 2006, , .		7
149	ZAL: Zero-Maintenance Address Allocation in Mobile Wireless Ad Hoc Networks. , 2005, , .		5
150	A hierarchical graph model for probing multimedia applications. , 2001, , .		0
151	Impact of control theory on QoS adaptation in distributed middleware systems. , 2001, , .		2
152	A scalable location management scheme in mobile ad-hoc networks. , 0, , .		55
153	Fair scheduling with bottleneck consideration in wireless ad-hoc networks. , 0, , .		6
154	MP-DSR: a QoS-aware multi-path dynamic source routing protocol for wireless ad-hoc networks. , 0, , .		127
155	MobileGrid: capacity-aware topology control in mobile ad hoc networks. , 0, , .		16
156	Group mobility and partition prediction in wireless ad-hoc networks. , 0, , .		115
157	Distributed call admission control for ad hoc networks. , 0, , .		32
158	Efficient and guaranteed service coverage in partitionable mobile ad-hoc networks. , 0, , .		88
159	Efficient peer-to-peer data dissemination in mobile ad-hoc networks. , 0, , .		27
160	SmartNode: achieving 802.11 MAC interoperability in power-efficient ad hoc networks with dynamic range adjustments. , 0, , .		8
161	FAIR: fee arbitrated incentive architecture in wireless ad hoc networks. , 0, , .		2
162	Cross-layer flow control in lightly-loaded multi-hop ad hoc networks. , 0, , .		3

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163	On the fundamental capacity and lifetime limits of energy-constrained wireless sensor networks. , 0, , .		23
164	Strategyproof mechanisms for dynamic multicast tree formation in overlay networks. , 0, , .		15
165	End-to-End Fair Bandwidth Allocation in Multi-Hop Wireless Ad Hoc Networks. , 0, , .		36
166	Efficient and distributed computation of maximum multicast rates. , 0, , .		18
167	On Increasing End-to-End Throughput in Wireless Ad Hoc Networks. , 0, , .		9
168	infer: A Bayesian Inference Approach towards Energy Efficient Data Collection in Dense Sensor Networks. , 0, , .		32
169	On Optimal Peer-to-Peer Topology Construction with Maximum Peer Bandwidth Contributions. , 0, , .		8
170	Overlay Multicast with Inferred Link Capacity Correlations. , 0, , .		2