Soung Chang Liew

List of Publications by Year
in descending order

81 papers	4,097 citations	236833 25 h-index	197736 49 g-index
81 all docs	81 docs citations	81 times ranked	2441 citing authors

#	Article	IF	Citations
1	Non-Uniform Time-Step Deep Q-Network for Carrier-Sense Multiple Access in Heterogeneous Wireless Networks. IEEE Transactions on Mobile Computing, 2021, 20, 2848-2861.	3.9	22
2	Backbone-Assisted Wireless Local Area Network. IEEE Transactions on Mobile Computing, 2021, 20, 830-845.	3.9	3
3	Timely Information Update With Nonorthogonal Multiple Access. IEEE Transactions on Industrial Informatics, 2021, 17, 4096-4106.	7.2	16
4	Coding of Multi-Source Information Streams With Age of Information Requirements. IEEE Journal on Selected Areas in Communications, 2021, 39, 1427-1440.	9.7	8
5	Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. IEEE Transactions on Wireless Communications, 2020, 19, 279-292.	6.1	5
6	Outage-Limit-Approaching Channel Coding for Future Wireless Communications: Root-Protograph Low-Density Parity-Check Codes. IEEE Vehicular Technology Magazine, 2019, 14, 85-93.	2.8	128
7	Deep-Reinforcement Learning Multiple Access for Heterogeneous Wireless Networks. IEEE Journal on Selected Areas in Communications, 2019, 37, 1277-1290.	9.7	201
8	OFDM Modulated PNC in V2X Communications: An ICI-Aware Approach Against CFOs and Time-Frequency-Selective Channels. IEEE Access, 2019, 7, 4880-4897.	2.6	7
9	Channel Decoding for Nonbinary Physical-Layer Network Coding in Two-Way Relay Systems. IEEE Transactions on Vehicular Technology, 2019, 68, 628-640.	3.9	16
10	Mobile Lattice-Coded Physical-Layer Network Coding with Practical Channel Alignment. IEEE Transactions on Mobile Computing, 2018, 17, 1908-1923.	3.9	16
11	Optimal Noncoherent Detection for Physical-Layer Network Coding. , 2018, , .		2
12	Noncoherent Detection for Physical-Layer Network Coding. IEEE Transactions on Wireless Communications, 2018, 17, 6901-6916.	6.1	5
13	Short packet physical-layer network coding with mismatched channel state information. , 2018, , .		5
14	An ICI-Aware Approach for Physical-Layer Network Coding in Time-Frequency-Selective Vehicular Channels. , 2018, , .		1
15	Network-Coded Multiple Access on Unmanned Aerial Vehicle. IEEE Journal on Selected Areas in Communications, 2018, 36, 2071-2086.	9.7	27
16	Effective Static and Adaptive Carrier Sensing for Dense Wireless CSMA Networks. IEEE Transactions on Mobile Computing, 2017, 16, 355-366.	3.9	24
17	Symbol Misalignment Estimation in Asynchronous Physical-Layer Network Coding. IEEE Transactions on Vehicular Technology, 2017, 66, 2844-2852.	3.9	16
18	Complex Linear Physical-Layer Network Coding. IEEE Transactions on Information Theory, 2017, 63, 4949-4981.	1.5	21

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19	Network-Coded Multiple Access with High-Order Modulations. IEEE Transactions on Vehicular Technology, 2017, 66, 9776-9792.	3.9	11
20	Phase Asynchronous Physical-Layer Network Coding: Decoder Design and Experimental Study. IEEE Transactions on Wireless Communications, 2017, 16, 2708-2720.	6.1	14
21	Practical Power-Balanced Non-Orthogonal Multiple Access. IEEE Journal on Selected Areas in Communications, 2017, 35, 2312-2327.	9.7	49
22	Asynchronous Physical-Layer Network Coding: Symbol Misalignment Estimation and Its Effect on Decoding. IEEE Transactions on Wireless Communications, 2017, 16, 6881-6894.	6.1	28
23	Reliable Physical-Layer Network Coding Supporting Real Applications. IEEE Transactions on Mobile Computing, 2017, 16, 2334-2350.	3.9	18
24	Optimal symbol misalignment estimation in asynchronous physical-layer network coding. , 2017, , .		1
25	Physical-layer network coding: A random coding error exponent perspective. , 2017, , .		11
26	Design of Distributed Protograph LDPC Codes for Multi-Relay Coded-Cooperative Networks. IEEE Transactions on Wireless Communications, 2017, 16, 7235-7251.	6.1	49
27	On the Subtleties of -PAM Linear Physical-Layer Network Coding. IEEE Transactions on Information Theory, 2016, 62, 2520-2544.	1.5	25
28	The Feasibility of Mobile Physical-Layer Network Coding with BPSK Modulation. IEEE Transactions on Vehicular Technology, 2016, , 1-1.	3.9	9
29	Physical-layer network coding: A high performance PHY-layer decoder. , 2016, , .		6
30	Bandwidth-Efficient Coded Modulation Schemes for Physical-Layer Network Coding with High-Order Modulations. IEEE Transactions on Communications, 2016, , 1-1.	4.9	28
31	Optimal coefficients for channel-coded linear physical layer network coding. , 2016, , .		1
32	Physical-Layer Network Coding in Two-Way Heterogeneous Cellular Networks With Power Imbalance. IEEE Transactions on Vehicular Technology, 2016, 65, 9072-9084.	3.9	10
33	Frequency-Asynchronous Multiuser Joint Channel-Parameter Estimation, CFO Compensation, and Channel Decoding. IEEE Transactions on Vehicular Technology, 2016, 65, 9732-9746.	3.9	10
34	Network-Coded Multiple Access with Higher-Order Modulations. , 2015, , .		8
35	Network-Coded Multiple Access II: Toward Real-Time Operation With Improved Performance. IEEE Journal on Selected Areas in Communications, 2015, 33, 264-280.	9.7	31
36	Mitigating Doppler effects on physical-layer network coding in VANET. , 2015, , .		9

#	ARTICLE	IF	CITATIONS
37	Coding for network-coded slotted ALOHA. , 2015, , .		9
38	A Primer on Physical-Layer Network Coding. Synthesis Lectures on Communication Networks, 2015, 8, 1-218.	6.3	22
39	The Capacity of Known Interference Channel. IEEE Journal on Selected Areas in Communications, 2015, 33, 1241-1252.	9.7	16
40	Asynchronous Convolutional-Coded Physical-Layer Network Coding. IEEE Transactions on Wireless Communications, 2015, 14, 1380-1395.	6.1	39
41	An Optimal Decoding Strategy for Physical-Layer Network Coding Over Multipath Fading Channels. IEEE Transactions on Vehicular Technology, 2015, 64, 4365-4372.	3.9	8
42	Breakthroughs in Photonics 2014: Optical Physical-Layer Network Coding, Recent Developments, and Challenges. IEEE Photonics Journal, 2015, 7, 1-6.	1.0	18
43	Optical physical-layer network coding — Another dimension to increase network capacity?. , 2014, , .		0
44	Joint phase tracking and channel decoding for OFDM PNC. , 2014, , .		4
45	Optimal decoding of convolutional-coded physical-layer network coding. , 2014, , .		4
46	Network-Coded Multiple Access. IEEE Transactions on Mobile Computing, 2014, 13, 2853-2869.	3.9	55
47	Common-Channel Optical Physical-Layer Network Coding. IEEE Photonics Technology Letters, 2014, 26, 1340-1343.	1.3	16
48	Feasibility study of physical-layer network coding in 802.11p VANETs. , 2014, , .		15
49	Network-Coded Multiple Access with Higher-Order Modulations. , 2014, , .		0
50	Implementation of physical-layer network coding. Physical Communication, 2013, 6, 74-87.	1.2	72
51	Real-time implementation of physical-layer network coding. , 2013, , .		41
52	Physical-layer network coding: Tutorial, survey, and beyond. Physical Communication, 2013, 6, 4-42.	1.2	274
53	Markov Approximation for Combinatorial Network Optimization. IEEE Transactions on Information Theory, 2013, 59, 6301-6327.	1.5	143
54	Wireless MIMO Switching with Zero Forcing and Network Coding. IEEE Journal on Selected Areas in Communications, 2012, 30, 1452-1463.	9.7	22

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55	Asynchronous Physical-Layer Network Coding. IEEE Transactions on Wireless Communications, 2012, 11, 819-831.	6.1	163
56	Applications of Belief Propagation in CSMA Wireless Networks. IEEE/ACM Transactions on Networking, 2012, 20, 1276-1289.	2.6	75
57	Implementation of physical-layer network coding. , 2012, , .		54
58	Interference minimum network topologies for ad hoc networks. Wireless Communications and Mobile Computing, 2012, 12, 529-544.	0.8	0
59	Wireless MIMO switching with zero-forcing relaying. , 2011, , .		9
60	Capacity of Large-Scale CSMA Wireless Networks. IEEE/ACM Transactions on Networking, 2011, 19, 893-906.	2.6	20
61	Optimal Decoding Algorithm for Asynchronous Physical-Layer Network Coding. , 2011, , .		35
62	Applying Physical-Layer Network Coding in Wireless Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	1.5	35
63	Effective Carrier Sensing in CSMA Networks under Cumulative Interference. , 2010, , .		33
64	Physical Layer Network Coding with Multiple Antennas. , 2010, , .		67
65	Sustainable Throughput of Wireless LANs with Multipacket Reception Capability under Bounded Delay-Moment Requirements. IEEE Transactions on Mobile Computing, 2010, 9, 1226-1241.	3.9	19
66	Back-of-the-Envelope Computation of Throughput Distributions in CSMA Wireless Networks. IEEE Transactions on Mobile Computing, 2010, 9, 1319-1331.	3.9	103
67	Capacity of large-scale CSMA wireless networks. , 2009, , .		38
68	Performance of VoIP over Multiple Co-Located IEEE 802.11 Wireless LANs. IEEE Transactions on Mobile Computing, 2009, 8, 1063-1076.	3.9	15
69	Bounded-Mean-Delay Throughput and Nonstarvation Conditions in Aloha Network. IEEE/ACM Transactions on Networking, 2009, 17, 1606-1618.	2.6	10
70	Proportional Fairness in Multi-Channel Multi-Rate Wireless Networks-Part I: The Case of Deterministic Channels with Application to AP Association Problem in Large-Scale WLAN. IEEE Transactions on Wireless Communications, 2008, 7, 3446-3456.	6.1	36
71	Improving Throughput and Fairness by Reducing Exposed and Hidden Nodes in 802.11 Networks. IEEE Transactions on Mobile Computing, 2008, 7, 34-49.	3.9	126
72	Proportional Fairness in Multi-Channel Multi-Rate Wireless Networks - Part II: The Case of Time-Varying Channels with Application to OFDM Systems. IEEE Transactions on Wireless Communications, 2008, 7, 3457-3467.	6.1	33

#	Article	IF	Citations
73	Soft network coding in wireless two-way relay channels. Journal of Communications and Networks, 2008, 10, 371-383.	1.8	28
74	Physical Layer Network Coding Schemes over Finite and Infinite Fields. , 2008, , .		115
75	Impact of Power Control on Performance of IEEE 802.11 Wireless Networks. IEEE Transactions on Mobile Computing, 2007, 6, 1245-1258.	3.9	43
76	Throughput Analysis of IEEE802.11 Multi-Hop Ad Hoc Networks. IEEE/ACM Transactions on Networking, 2007, 15, 309-322.	2.6	220
77	Hidden-Node Removal and Its Application in Cellular WiFi Networks. IEEE Transactions on Vehicular Technology, 2007, 56, 2641-2654.	3.9	33
78	Hot topic. , 2006, , .		1,064
79	Multipacket Reception in Wireless Local Area Networks. , 2006, , .		64
80	A performance evaluation framework for IEEE 802.11 ad-hoc networks. , 2004, , .		6
81	Proportional fairness in wireless LANs and ad hoc networks. , 0, , .		54