Chongwen Huang

List of Publications by Year
in descending order

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76 papers	6,099 citations	218592 26 h-index	214721 47 g-index
76 all docs	76 docs citations	76 times ranked	2540 citing authors

#	Article	IF	Citations
1	Reconfigurable Intelligent Surfaces for Energy Efficiency in Wireless Communication. IEEE Transactions on Wireless Communications, 2019, 18, 4157-4170.	6.1	2,003
2	Holographic MIMO Surfaces for 6G Wireless Networks: Opportunities, Challenges, and Trends. IEEE Wireless Communications, 2020, 27, 118-125.	6.6	699
3	Reconfigurable Intelligent Surface Assisted Multiuser MISO Systems Exploiting Deep Reinforcement Learning. IEEE Journal on Selected Areas in Communications, 2020, 38, 1839-1850.	9.7	495
4	Channel Estimation for RIS-Empowered Multi-User MISO Wireless Communications. IEEE Transactions on Communications, 2021, 69, 4144-4157.	4.9	336
5	Energy Efficient Multi-User MISO Communication Using Low Resolution Large Intelligent Surfaces. , 2018, , .		221
6	Achievable Rate Maximization by Passive Intelligent Mirrors. , 2018, , .		204
7	Multi-Hop RIS-Empowered Terahertz Communications: A DRL-Based Hybrid Beamforming Design. IEEE Journal on Selected Areas in Communications, 2021, 39, 1663-1677.	9.7	202
8	Indoor Signal Focusing with Deep Learning Designed Reconfigurable Intelligent Surfaces. , 2019, , .		176
9	Reconfigurable intelligent surfaces for wireless communications: Overview of hardware designs, channel models, and estimation techniques. Intelligent and Converged Networks, 2022, 3, 1-32.	3.2	132
10	Iterative Channel Estimation Using LSE and Sparse Message Passing for MmWave MIMO Systems. IEEE Transactions on Signal Processing, 2019, 67, 245-259.	3.2	109
11	User Activity Detection and Channel Estimation for Grant-Free Random Access in LEO Satellite-Enabled Internet of Things. IEEE Internet of Things Journal, 2020, 7, 8811-8825.	5.5	81
12	Parallel Factor Decomposition Channel Estimation in RIS-Assisted Multi-User MISO Communication. , 2020, , .		71
13	Intelligent Task Offloading for Heterogeneous V2X Communications. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 2226-2238.	4.7	71
14	Gaussian Message Passing for Overloaded Massive MIMO-NOMA. IEEE Transactions on Wireless Communications, 2019, 18, 210-226.	6.1	70
15	Beamforming Design for Multiuser Transmission Through Reconfigurable Intelligent Surface. IEEE Transactions on Communications, 2021, 69, 589-601.	4.9	65
16	Energy Efficient Reconfigurable Intelligent Surface Enabled Mobile Edge Computing Networks With NOMA. IEEE Transactions on Cognitive Communications and Networking, 2021, 7, 427-440.	4.9	59
17	Reconfigurable Intelligent Surface-Assisted Aerial-Terrestrial Communications via Multi-Task Learning. IEEE Journal on Selected Areas in Communications, 2021, 39, 3035-3050.	9.7	57
18	RIS-Assisted Multi-User MISO Communications Exploiting Statistical CSI. IEEE Transactions on Communications, 2021, 69, 6781-6792.	4.9	55

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19	Robust Max-Min Energy Efficiency for RIS-Aided HetNets With Distortion Noises. IEEE Transactions on Communications, 2022, 70, 1457-1471.	4.9	55
20	DNN-Aided Block Sparse Bayesian Learning for User Activity Detection and Channel Estimation in Grant-Free Non-Orthogonal Random Access. IEEE Transactions on Vehicular Technology, 2019, 68, 12000-12012.	3.9	53
21	Joint Channel Estimation and Signal Recovery for RIS-Empowered Multiuser Communications. IEEE Transactions on Communications, 2022, 70, 4640-4655.	4.9	49
22	Multi-User Holographic MIMO Surfaces: Channel Modeling and Spectral Efficiency Analysis. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 1112-1124.	7.3	45
23	Dense Small Satellite Networks for Modern Terrestrial Communication Systems: Benefits, Infrastructure, and Technologies. IEEE Wireless Communications, 2020, 27, 96-103.	6.6	44
24	Intelligent Spectrum Learning for Wireless Networks With Reconfigurable Intelligent Surfaces. IEEE Transactions on Vehicular Technology, 2021, 70, 3920-3925.	3.9	43
25	RIS-Enhanced WPCNs: Joint Radio Resource Allocation and Passive Beamforming Optimization. IEEE Transactions on Vehicular Technology, 2021, 70, 7980-7991.	3.9	43
26	Joint Multi-User Communication and Sensing Exploiting Both Signal and Environment Sparsity. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1409-1422.	7.3	42
27	Robust Resource Allocation Algorithm for Energy-Harvesting-Based D2D Communication Underlaying UAV-Assisted Networks. IEEE Internet of Things Journal, 2021, 8, 17161-17171.	5.5	37
28	Hybrid Beamforming for RIS-Empowered Multi-hop Terahertz Communications: A DRL-based Method. , 2020, , .		35
29	AI-Assisted MAC for Reconfigurable Intelligent-Surface-Aided Wireless Networks: Challenges and Opportunities. IEEE Communications Magazine, 2021, 59, 21-27.	4.9	32
30	Reconfigurable-Intelligent-Surface-Assisted MAC for Wireless Networks: Protocol Design, Analysis, and Optimization. IEEE Internet of Things Journal, 2021, 8, 14171-14186.	5.5	32
31	Gaussian Message Passing Iterative Detection for MIMO-NOMA Systems with Massive Access. , 2016, , .		29
32	Communication and Computing Resource Optimization for Connected Autonomous Driving. IEEE Transactions on Vehicular Technology, 2020, 69, 12652-12663.	3.9	28
33	A Robust Deep Learning-Based Beamforming Design for RIS-Assisted Multiuser MISO Communications With Practical Constraints. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 694-706.	4.9	26
34	RIS-Aided Wireless Communications: Extra Degrees of Freedom via Rotation and Location Optimization. IEEE Transactions on Wireless Communications, 2022, 21, 6656-6671.	6.1	25
35	Asymptotically Optimal Estimation Algorithm for the Sparse Signal With Arbitrary Distributions. IEEE Transactions on Vehicular Technology, 2018, 67, 10070-10075.	3.9	24
36	A LSE and Sparse Message Passing-Based Channel Estimation for mmWave MIMO Systems. , 2016, , .		23

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37	Electromagnetic Effective Degree of Freedom of an MIMO System in Free Space. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 446-450.	2.4	22
38	A New Insight Into GAMP and AMP. IEEE Transactions on Vehicular Technology, 2019, 68, 8264-8269.	3.9	20
39	Massive Access of Static and Mobile Users via Reconfigurable Intelligent Surfaces: Protocol Design and Performance Analysis. IEEE Journal on Selected Areas in Communications, 2022, 40, 1253-1269.	9.7	20
40	Deep Reinforcement Learning Based on Location-Aware Imitation Environment for RIS-Aided mmWave MIMO Systems. IEEE Wireless Communications Letters, 2022, 11, 1493-1497.	3.2	18
41	Multiple Residual Dense Networks for Reconfigurable Intelligent Surfaces Cascaded Channel Estimation. IEEE Transactions on Vehicular Technology, 2022, 71, 2134-2139.	3.9	17
42	Time-Varying Channel Prediction for RIS-Assisted MU-MISO Networks via Deep Learning. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 1802-1815.	4.9	17
43	Robust Beamforming for RIS-Assisted Wireless Communications With Discrete Phase Shifts. IEEE Wireless Communications Letters, 2021, 10, 2619-2623.	3.2	15
44	Converged Reconfigurable Intelligent Surface and Mobile Edge Computing for Space Information Networks. IEEE Network, 2021, 35, 42-48.	4.9	15
45	Concentrative Intelligent Reflecting Surface Aided Computational Imaging via Fast Block Sparse Bayesian Learning. , 2021, , .		14
46	Safeguarding NOMA Networks via Reconfigurable Dual-Functional Surface Under Imperfect CSI. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 950-966.	7.3	13
47	Spectrum-Learning-Aided Reconfigurable Intelligent Surfaces for â€œGreenâ€•6G Networks. IEEE Network, 2021, 35, 20-26.	4.9	12
48	Reconfigurable Intelligent Surface-Aided 6G Massive Access: Coupled Tensor Modeling and Sparse Bayesian Learning. IEEE Transactions on Wireless Communications, 2022, 21, 10145-10161.	6.1	12
49	Channel Estimation for Full-Duplex RIS-assisted HAPS Backhauling with Graph Attention Networks. , 2021, , .		11
50	Joint Deployment and Resource Management for VLC-Enabled RISs-Assisted UAV Networks. IEEE Transactions on Wireless Communications, 2023, 22, 746-760.	6.1	10
51	Environment Sensing Considering the Occlusion Effect: A Multi-View Approach. IEEE Transactions on Signal Processing, 2022, 70, 3598-3615.	3.2	10
52	Joint Channel Estimation and Signal Recovery in RIS-Assisted Multi-User MISO Communications. , 2021, , .		9
53	Optimal Control for Full-Duplex Communications with Reconfigurable Intelligent Surface. , 2021, , .		9
54	Energy Efficient Intelligent Reflecting Surface Assisted Terahertz Communications. , 2021, , .		9

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55	C-GRBFnet: A Physics-Inspired Generative Deep Neural Network for Channel Representation and Prediction. IEEE Journal on Selected Areas in Communications, 2022, 40, 2282-2299.	9.7	9
56	Sparse Vector Recovery: Bernoulli-Gaussian Message Passing. , 2017, , .		8
57	A Bayesian Tensor Approach to Enable RIS for 6G Massive Unsourced Random Access. , 2021, , .		8
58	Federated Spectrum Learning for Reconfigurable Intelligent Surfaces-Aided Wireless Edge Networks. IEEE Transactions on Wireless Communications, 2022, 21, 9610-9626.	6.1	8
59	Average Rate Approximation and Maximization for RIS-Assisted Multi-User MISO System. IEEE Wireless Communications Letters, 2022, 11, 173-177.	3.2	6
60	Performance analysis for reconfigurable intelligent surface assisted downlink NOMA networks. IET Communications, 2022, 16, 1593-1605.	1.5	5
61	Robust Design for STAR-RIS Secured Internet of Medical Things. , 2022, , .		4
62	DNN-Aided Message Passing Based Block Sparse Bayesian Learning for Joint User Activity Detection and Channel Estimation. , 2019, , .		3
63	Energy-Efficient Resource Allocation with Imperfect CSI in NOMA-based D2D Networks with SWIPT. , 2021, , .		3
64	Over-the-air Learning Rate Optimization for Federated Learning. , 2021, , .		3
65	GPAE-LSTMnet: A Novel Learning Structure for Mobile MIMO Channel Prediction. , 2021, , .		3
66	Joint AMC and Resource Allocation for Mobile Wireless Networks Based on Distributed MARL. , 2022, , .		3
67	A high-precision all-digital automatic gain control algorithm for broadband real-time spectrum analyzer. , 2013, , .		2
68	Optimal Resource Management for NOMA-Based Visible Light Communication Systems With Shot Noise. IEEE Transactions on Green Communications and Networking, 2022, 6, 2015-2031.	3.5	2
69	Multi-User Wireless Communications with Holographic MIMO Surfaces: A Convenient Channel Model and Spectral Efficiency Analysis. , 2022, , .		2
70	RIS-aided Wireless Power Transfer for Unmanned Aerial Vehicles. , 2021, , .		1
71	Channel Prediction Based on A Novel Physics-Inspired Generative Learning Structure. , 2021, , .		1
72	Bidirectional Approximate Message Passing for RIS-Assisted Multi-User MISO Communications. , 2021, , .		1

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73	Intelligent Reflecting Surface Aided Computational Imaging Exploiting Reed-Muller Sequences. , 2021, , .		1
74	Device Selection of Distributed Primal-Dual Algorithms Over Wireless Networks. , 2021, , .		1
75	Uplink Ergodic Capacity of Reconfigurable Intelligent Surface-Aided Multi-User MISO Communications With Statistical CSI. , 2021, , .		1
76	Resource Allocation for Multi-Task Federated Learning Algorithm over Wireless Communication Networks. , 2022, , .		0