## Huaiyu Dai

## List of Publications by Year in Descending Order

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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.

2,916 146 25 50 h-index g-index papers citations 181 6.6 3,767 6.04 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
146	Communication Efficient Federated Learning with Energy Awareness over Wireless Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2022</b> , 1-1	9.6	3
145	Communication-Efficient Federated Learning via Predictive Coding. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2022</b> , 1-1	7.5	0
144	Multi-Stage Hybrid Federated Learning Over Large-Scale D2D-Enabled Fog Networks. <i>IEEE/ACM Transactions on Networking</i> , <b>2022</b> , 1-16	3.8	5
143	Precoder Design for Physical-Layer Security and Authentication in Massive MIMO UAV Communications. <i>IEEE Transactions on Vehicular Technology</i> , <b>2022</b> , 1-1	6.8	1
142	Hybrid Beamforming and Adaptive RF Chain Activation for Uplink Cell-Free Millimeter-Wave Massive MIMO Systems. <i>IEEE Transactions on Vehicular Technology</i> , <b>2022</b> , 1-1	6.8	2
141	Multi-Hop Task Offloading with On-The-Fly Computation for Multi-UAV Remote Edge Computing. <i>IEEE Transactions on Communications</i> , <b>2021</b> , 1-1	6.9	4
140	Physical Layer Security for NOMA Transmission in mmWave Drone Networks. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 3568-3582	6.8	4
139	Spectral Graph Theory Based Resource Allocation for IRS-Assisted Multi-Hop Edge Computing <b>2021</b> ,		4
138	Energy-Aware Stochastic UAV-Assisted Surveillance. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 2820-2837	9.6	8
137	Optimal Position Planning of UAV Relays in UAV-assisted Vehicular Networks 2021,		2
136	Accelerating Generalized Benders Decomposition for Wireless Resource Allocation. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 1233-1247	9.6	4
135	UAV-Aided Data Collection for Information Freshness in Wireless Sensor Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 2368-2382	9.6	27
134	Interference Analysis and Mitigation for Aerial IoT Considering 3D Antenna Patterns. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 490-503	6.8	1
133	Outage Analysis for Cooperative mmWave UAV Communications With Beam Training Overhead. <i>IEEE Wireless Communications Letters</i> , <b>2021</b> , 1-1	5.9	О
132	UAV Anti-Jamming Video Transmissions With QoE Guarantee: A Reinforcement Learning-Based Approach. <i>IEEE Transactions on Communications</i> , <b>2021</b> , 69, 5933-5947	6.9	5
131	Distributed ADMM With Synergetic Communication and Computation. <i>IEEE Transactions on Communications</i> , <b>2021</b> , 69, 501-517	6.9	1
130	Controlling Metastable Infection Patterns in Multilayer Networks via Interlink Design. <i>IEEE Transactions on Network Science and Engineering</i> , <b>2021</b> , 1-1	4.9	1

## (2020-2021)

129	Application of Deep Learning to Sphere Decoding for Large MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 1-1	9.6	10
128	Dynamic Interference Management for UAV-Assisted Wireless Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 1-1	9.6	2
127	Reinforcement Learning-Based Physical-Layer Authentication for Controller Area Networks. <i>IEEE Transactions on Information Forensics and Security</i> , <b>2021</b> , 16, 2535-2547	8	9
126	. IEEE Transactions on Network Science and Engineering, <b>2020</b> , 7, 1939-1952	4.9	2
125	Low-Resolution Limited-Feedback NOMA for mmWave Communications. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 19, 5433-5446	9.6	3
124	Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 19, 4054-4066	9.6	18
123	Minimizing the Age of Information in the Presence of Location Privacy-Aware Mobile Agents. <i>IEEE Transactions on Communications</i> , <b>2020</b> , 1-1	6.9	0
122	Physical Layer Security for UAV Communications <b>2020</b> , 373-397		2
121	Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 19, 1814-1824	9.6	21
120	Prevention and Mitigation of Catastrophic Failures in Demand-Supply Interdependent Networks. <i>IEEE Transactions on Network Science and Engineering</i> , <b>2020</b> , 7, 1710-1723	4.9	3
119	Allocation of Computation-Intensive Graph Jobs Over Vehicular Clouds in IoV. <i>IEEE Internet of Things Journal</i> , <b>2020</b> , 7, 311-324	10.7	13
118	Hybrid Precoding for mmWave Massive MIMO With One-Bit DAC. <i>IEEE Communications Letters</i> , <b>2020</b> , 24, 2941-2945	3.8	1
117	Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 19, 7033-7048	9.6	15
116	Deep Reinforcement Learning for Efficient Data Collection in UAV-Aided Internet of Things 2020,		13
115	Lifetime Maximization for UAV-assisted Data Gathering Networks in the Presence of Jamming <b>2020</b> ,		1
114	UAV-Aided Cellular Communications with Deep Reinforcement Learning Against Jamming. <i>IEEE Wireless Communications</i> , <b>2020</b> , 27, 48-53	13.4	31
113	2020,		5
112	Precoder Design for mmWave UAV Communications with Physical Layer Security 2020,		5

111	. IEEE Transactions on Parallel and Distributed Systems, <b>2020</b> , 31, 749-765	3.7	6
110	Maximization of Robustness of Interdependent Networks Under Budget Constraints. <i>IEEE Transactions on Network Science and Engineering</i> , <b>2020</b> , 7, 1441-1452	4.9	6
109	2019,		12
108	SLNR Based Precoding for One-Bit Quantized Massive MIMO in mmWave Communications <b>2019</b> ,		3
107	Reinforcement Learning for Interference Avoidance Game in RF-Powered Backscatter Communications <b>2019</b> ,		5
106	Dynamic Mobility-Aware Interference Avoidance for Aerial Base Stations in Cognitive Radio Networks <b>2019</b> ,		21
105	Smart Information Spreading for Opinion Maximization in Social Networks 2019,		8
104	QR-Decomposition-Aided Tabu Search Detection for Large MIMO Systems. <i>IEEE Transactions on Vehicular Technology</i> , <b>2019</b> , 68, 4857-4870	6.8	7
103	Multiplex Conductance and Gossip Based Information Spreading in Multiplex Networks. <i>IEEE Transactions on Network Science and Engineering</i> , <b>2019</b> , 6, 391-401	4.9	2
102	Camouflaging Mobile Primary Users in Database-Driven Cognitive Radio Networks. <i>IEEE Wireless Communications Letters</i> , <b>2019</b> , 8, 21-24	5.9	2
101	Deep Reinforcement Learning-Enabled Secure Visible Light Communication Against Eavesdropping. <i>IEEE Transactions on Communications</i> , <b>2019</b> , 67, 6994-7005	6.9	43
100	Principles of Effective and Robust Innate Immune Response to Viral Infections: A Multiplex Network Analysis. <i>Frontiers in Immunology</i> , <b>2019</b> , 10, 1736	8.4	19
99	Physical-Layer Assisted Privacy-Preserving Offloading in Mobile-Edge Computing <b>2019</b> ,		13
98	Energy Efficiency of RSMA and NOMA in Cellular-Connected mmWave UAV Networks 2019,		35
97	UAV-Enabled Age-Optimal Data Collection in Wireless Sensor Networks 2019,		23
96	Voltage Based Authentication for Controller Area Networks with Reinforcement Learning 2019,		4
95	On the Security-Privacy Tradeoff in Collaborative Security: A Quantitative Information Flow Game Perspective. <i>IEEE Transactions on Information Forensics and Security</i> , <b>2019</b> , 14, 3273-3286	8	5
94	A Two-Stage Auction Mechanism for Cloud Resource Allocation. <i>IEEE Transactions on Cloud Computing</i> , <b>2019</b> , 1-1	3.3	5

93	Interference Avoidance in UAV-Assisted Networks: Joint 3D Trajectory Design and Power Allocation <b>2019</b> ,		9
92	QoE-Aware Power Control for UAV-Aided Media Transmission with Reinforcement Learning 2019,		2
91	. IEEE Internet of Things Journal, <b>2019</b> , 6, 4547-4555	10.7	33
90	A Truthful Reverse-Auction Mechanism for Computation Offloading in Cloud-Enabled Vehicular Network. <i>IEEE Internet of Things Journal</i> , <b>2019</b> , 6, 4214-4227	10.7	40
89	Learning-Based Privacy-Aware Offloading for Healthcare IoT With Energy Harvesting. <i>IEEE Internet of Things Journal</i> , <b>2019</b> , 6, 4307-4316	10.7	101
88	Dynamic Games for Network Security. Springer Briefs in Electrical and Computer Engineering, 2018,	0.4	1
87	Leveraging Spatial Diversity for Privacy-Aware Location-Based Services in Mobile Networks. <i>IEEE Transactions on Information Forensics and Security</i> , <b>2018</b> , 13, 1524-1534	8	20
86	One-Bit Quantized Massive MIMO Detection Based on Variational Approximate Message Passing. <i>IEEE Transactions on Signal Processing</i> , <b>2018</b> , 66, 2358-2373	4.8	28
85	Mobile Crowdsensing Games in Vehicular Networks. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 1535-1545	6.8	74
84	Age-optimal trajectory planning for UAV-assisted data collection 2018,		81
83	Collaborative IDS Configuration: A Two-Layer Game-Theoretic Approach. <i>IEEE Transactions on Cognitive Communications and Networking</i> , <b>2018</b> , 4, 803-815	6.6	4
82	Dynamic Security Games with Extra Information. <i>Springer Briefs in Electrical and Computer Engineering</i> , <b>2018</b> , 25-42	0.4	
81	Reinforcement Learning-Based NOMA Power Allocation in the Presence of Smart Jamming. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 3377-3389	6.8	117
80	A Secure Mobile Crowdsensing Game With Deep Reinforcement Learning. <i>IEEE Transactions on Information Forensics and Security</i> , <b>2018</b> , 13, 35-47	8	103
79	Enhancing Physical Layer Security for NOMA Transmission in mmWave Drone Networks 2018,		13
78	. IEEE Communications Surveys and Tutorials, <b>2018</b> , 20, 3098-3130	37.1	370
77	A Leader Hollower Controlled Markov Stopping Game for Delay Tolerant and Opportunistic Resource Sharing Networks. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2017</b> , 35, 615-627	14.2	2
76	On the Tradeoff between Privacy and Utility in Collaborative Intrusion Detection Systems-A Game Theoretical Approach <b>2017</b> ,		10

75	On information spreading in multiplex networks with gossip mechanism <b>2017</b> ,		4
74	Towards Privacy-Aware Collaborative Security: A Game-Theoretic Approach 2017,		1
73	Game theoretic study of protecting MIMO transmissions against smart attacks 2017,		16
72	Options-based sequential auctions for dynamic cloud resource allocation 2017,		7
71	QoS-Based Interference Alignment With Similarity Clustering for Efficient Subchannel Allocation in Dense Small Cell Networks. <i>IEEE Transactions on Communications</i> , <b>2017</b> , 65, 5054-5066	6.9	14
70	Detection of Infections Using Graph Signal Processing in Heterogeneous Networks 2017,		3
69	Multiplex conductance and gossip based information spreading in multiplex networks 2017,		1
68	Designing Optimal Interlink Patterns to Maximize Robustness of Interdependent Networks Against Cascading Failures. <i>IEEE Transactions on Communications</i> , <b>2017</b> , 65, 3847-3862	6.9	31
67	A Mobile Offloading Game Against Smart Attacks. <i>IEEE Access</i> , <b>2016</b> , 4, 2281-2291	3.5	74
66	Relay Selection for Cooperative NOMA. <i>IEEE Wireless Communications Letters</i> , <b>2016</b> , 5, 416-419	5.9	370
65	Mobile Conductance in Sparse Networks and Mobility-Connectivity Tradeoff. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 2954-2965	9.6	3
64	Zero-determinant Strategies for Multi-player Multi-action Iterated Games. <i>IEEE Signal Processing Letters</i> , <b>2016</b> , 23, 311-315	3.2	15
63	Joint User Selection and Feedback Bit Allocation Based on Sparsity Constraint in MIMO Virtual Cellular Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 2069-2079	9.6	1
62	Estimation of Robustness of Interdependent Networks against Failure of Nodes 2016,		4
61	Cluster-Based Resource Allocation for Spectrum-Sharing Femtocell Networks. <i>IEEE Access</i> , <b>2016</b> , 4, 864	338656	i 17
60	Faster Learning and Adaptation in Security Games by Exploiting Information Asymmetry. <i>IEEE Transactions on Signal Processing</i> , <b>2016</b> , 64, 3429-3443	4.8	24
59	Delay Optimal Scheduling for Energy Harvesting Based Communications. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2015</b> , 33, 452-466	14.2	21
58	Single-Hop Transport Throughput of Secondary Networks in Spectrum Sharing Systems. <i>IEEE Transactions on Mobile Computing</i> , <b>2015</b> , 14, 1726-1736	4.6	1

57	Robust blind image watermarking based on chaotic mixtures. <i>Nonlinear Dynamics</i> , <b>2015</b> , 80, 1329-1355	5	23
56	A stochastic multi-channel spectrum access game with incomplete information 2015,		5
55	Optimal Resource Allocation in Random Access Cooperative Cognitive Radio Networks. <i>IEEE Transactions on Mobile Computing</i> , <b>2015</b> , 14, 1245-1258	4.6	12
54	Towards Optimal Link Patterns for Robustness of Interdependent Networks against Cascading Failures <b>2015</b> ,		4
53	Anti-Jamming Transmission Stackelberg Game With Observation Errors. <i>IEEE Communications Letters</i> , <b>2015</b> , 19, 949-952	3.8	112
52	Improving learning and adaptation in security games by exploiting information asymmetry 2015,		14
51	Dynamic Adaptive Anti-Jamming via Controlled Mobility. <i>IEEE Transactions on Wireless Communications</i> , <b>2014</b> , 13, 4374-4388	9.6	20
50	Mobile conductance in sparse networks and mobility-connectivity tradeoff <b>2014</b> ,		6
49	A Byzantine Attack Defender in Cognitive Radio Networks: The Conditional Frequency Check. <i>IEEE Transactions on Wireless Communications</i> , <b>2013</b> , 12, 2512-2523	9.6	39
48	Gossip-Based Information Spreading in Mobile Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2013</b> , 12, 5918-5928	9.6	16
47	HMM-Based Malicious User Detection for Robust Collaborative Spectrum Sensing. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2013</b> , 31, 2196-2208	14.2	40
46	On the Capacity Region of Cognitive Multiple Access over White Space Channels. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2013</b> , 31, 2517-2527	14.2	8
45	Mobile conductance and gossip-based information spreading in mobile networks 2013,		3
44	Structured Variational Methods for Distributed Inference in Networked Systems: Design and Analysis. <i>IEEE Transactions on Signal Processing</i> , <b>2013</b> , 61, 3827-3839	4.8	1
43	Ally Friendly Jamming: How to Jam Your Enemy and Maintain Your Own Wireless Connectivity at the Same Time <b>2013</b> ,		12
42	Communication Efficiency of Anti-Jamming Broadcast in Large-Scale Multi-Channel Wireless Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2012</b> , 60, 5281-5292	4.8	16
41	Packet spreading without relaying in mobile wireless networks <b>2012</b> ,		1
40	Opportunistic Decode-and-Forward Relaying With Beamforming in Two-Wave With Diffuse Power Fading. <i>IEEE Transactions on Vehicular Technology</i> , <b>2012</b> , 61, 3050-3060	6.8	10

39	Distributed Spectrum-Aware Clustering in Cognitive Radio Sensor Networks 2011,		16
38	On the throughput scaling of Cognitive Radio ad hoc networks <b>2011</b> ,		13
37	Transmission Throughput of Decentralized Overlaid Networks with Outage Constraints 2011,		2
36	Transport capacity and connectivity of Cognitive Radio networks with outage constraint 2010,		4
35	Architecture of Web-EDA system based on Cloud computing and application for project management of IC design <b>2010</b> ,		3
34	Distributed network decomposition: A probabilistic greedy approach <b>2010</b> ,		1
33	Collaborative Quickest Spectrum Sensing via Random Broadcast in Cognitive Radio Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2010</b> , 9, 2338-2348	9.6	29
32	. IEEE Transactions on Information Theory, <b>2010</b> , 56, 6208-6227	2.8	16
31	Structured variational methods for distributed inference in wireless ad hoc and sensor networks <b>2009</b> ,		3
30	Structured variational methods for distributed inference: Convergence analysis and performance-complexity tradeoff <b>2009</b> ,		1
29	Analysis on the diversity-multiplexing tradeoff for ordered MIMO SIC receivers. <i>IEEE Transactions on Communications</i> , <b>2009</b> , 57, 125-133	6.9	15
28	Collaborative Quickest Spectrum Sensing via Random Broadcast in Cognitive Radio Systems 2009,		9
27	Cluster-based distributed consensus. IEEE Transactions on Wireless Communications, 2009, 8, 28-31	9.6	11
26	Finding the K largest metrics in a noisy broadcast network <b>2008</b> ,		4
25	Energy-Efficient Distributed Detection Via Multihop Transmission in Sensor Networks. <i>IEEE Signal Processing Letters</i> , <b>2008</b> , 15, 265-268	3.2	7
24	Asynchronous interference mitigation in cooperative base station systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2008</b> , 7, 155-165	9.6	97
23	Distributed Detection in Wireless Sensor Networks Using A Multiple Access Channel. <i>IEEE Transactions on Signal Processing</i> , <b>2007</b> , 55, 822-833	4.8	71
22	Asymptotic Analysis on the Interaction Between Spatial Diversity and Multiuser Diversity in Wireless Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2007</b> , 55, 4271-4283	4.8	25

21	Cluster-Based Fast Distributed Consensus <b>2007</b> ,		3
20	Accelerating Distributed Consensus Via Lifting Markov Chains 2007,		9
19	Location-Aided Fast Distributed Averaging <b>2007</b> ,		2
18	Consensus Estimation via Belief Propagation 2007,		2
17	Dynamic Self-Calibration in Collaborative Wireless Networks Using Belief Propagation with Gaussian Particle Filtering <b>2007</b> ,		1
16	Energy-efficiency and transmission strategy selection in cooperative wireless sensor networks. <i>Journal of Communications and Networks</i> , <b>2007</b> , 9, 473-481	4.1	15
15	Joint antenna selection and link adaptation for MIMO systems. <i>IEEE Transactions on Vehicular Technology</i> , <b>2006</b> , 55, 243-255	6.8	30
14	On the Diversity Order of Spatial Multiplexing Systems With Transmit Antenna Selection: A Geometrical Approach. <i>IEEE Transactions on Information Theory</i> , <b>2006</b> , 52, 5297-5311	2.8	34
13	Joint Tomlinson-Harashima precoding and scheduling for multiuser MIMO with imperfect feedback <b>2006</b> ,		1
12	On the Diversity-Multiplexing Tradeoff for Ordered SIC Receivers Over MIMO Channels 2006,		8
11	Energy Efficient Distributed Detection via Multi-Hop Transmission in Sensor Networks 2006,		1
10	Distributed Detection of A Deterministic Signal in Correlated Gaussian Noise Over MAC <b>2006</b> ,		2
9	A Mimo Receiver SOC for CDMA Applications <b>2006</b> ,		1
8	Fast mimo transmit antenna selection algorithms: a geometric approach. <i>IEEE Communications Letters</i> , <b>2006</b> , 10, 754-756	3.8	12
7	Asymptotic Analysis on Spatial Diversity versus Multiuser Diversity in Wireless Networks 2006,		6
6	The impact of shadow fading on the outage capacity and multiuser scheduling gain of MIMO systems <b>2005</b> ,		3
5	A geometrical analysis on transmit antenna selection for spatial multiplexing systems with linear receivers <b>2005</b> ,		1
4	Asymptotic spectral efficiency of multicell MIMO systems with frequency-flat fading. <i>IEEE Transactions on Signal Processing</i> , <b>2003</b> , 51, 2976-2988	4.8	33

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4.8 3 14 Transactions on Signal Processing, 2002, 50, 2116-2127 Distributed Versus Co-Located Mimo Systems with Correlated Fading and Shadowing Fast transmit antenna selection algorithms for MIMO systems with fading correlation

Iterative space-time processing for multiuser detection in multipath CDMA channels. IEEE