Honggang Zhang

List of Publications by Year in Descending Order

174 papers	3,462 citations	29 h-index	55 g-index
219 ext. papers	4,482 ext. citations	5.4 avg, IF	5.78 L-index

#	Paper	IF	Citations
174	Trustable Policy Collaboration Scheme for Multi-Agent Stigmergic Reinforcement Learning. *IEEE Communications Letters*, **2022**, 1-1	3.8	0
173	Information Freshness-Aware Task Offloading in Air-Ground Integrated Edge Computing Systems. *IEEE Journal on Selected Areas in Communications*, **2022**, 40, 243-258	14.2	9
172	Semantic Communication with Adaptive Universal Transformer. *IEEE Wireless Communications Letters*, **2021**, 1-1	5.9	5
171	RAN Information-assisted TCP Congestion Control Using Deep Reinforcement Learning with Reward Redistribution. *IEEE Transactions on Communications*, **2021**, 1-1	6.9	0
170	Persistent Homology-Based Topological Analysis on the Gestalt Patterns during Human Brain Cognition Process. *Journal of Healthcare Engineering*, **2021**, 2021, 2334332	3.7	0
169	RAN Information-assisted TCP Congestion Control via DRL with Reward Redistribution **2021**,		1
168	. *IEEE Transactions on Mobile Computing*, **2021**, 20, 2254-2268	4.6	1
167	Stigmergic Independent Reinforcement Learning for Multiagent Collaboration. *IEEE Transactions on Neural Networks and Learning Systems*, **2021**, PP,	10.3	5
166	Neurophysiological Assessment of Image Quality from EEG Using Persistent Homology of Brain Network **2021**,		1
165	Graph Attention Network-Based Multi-Agent Reinforcement Learning for Slicing Resource Management in Dense Cellular Network. *IEEE Transactions on Vehicular Technology*, **2021**, 1-1	6.8	4
164	Neural evidence for image quality perception based on algebraic topology.. *PLoS ONE*, **2021**, 16, e0261223	3.7	0
163	The Collective Advantage for Advancing Communications and Intelligence. *IEEE Wireless Communications*, **2020**, 27, 96-102	13.4	7
162	The LSTM-Based Advantage Actor-Critic Learning for Resource Management in Network Slicing With User Mobility. *IEEE Communications Letters*, **2020**, 24, 2005-2009	3.8	28
161	Resource Awareness In Unmanned Aerial Vehicle-Assisted Mobile-Edge Computing Systems **2020**,		10
160	Evaluation Mechanism of Collective Intelligence for Heterogeneous Agents Group. *IEEE Access*, **2020**, 8, 28385-28394	3.5	3
159	Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *IEEE Transactions on Wireless Communications*, **2020**, 19, 2268-2281	9.6	58
158	Evolving Deep Convolutional Neural Network for Intrusion Detection Based on NEAT **2020**,		1

157	Graph Convolutional Multi-Agent Reinforcement Learning for UAV Coverage Control **2020**,		3
156	GAN-Powered Deep Distributional Reinforcement Learning for Resource Management in Network Slicing. *IEEE Journal on Selected Areas in Communications*, **2020**, 38, 334-349	14.2	58
155	Deep Learning Based Traffic and Mobility Prediction **2020**, 119-136		0
154	Study on Base Station Topology in National Cellular Networks: Take Advantage of Alpha Shapes, Betti Numbers, and Euler Characteristics. *IEEE Systems Journal*, **2020**, 14, 2202-2213	4.3	
153	Multi-Tenant Cross-Slice Resource Orchestration: A Deep Reinforcement Learning Approach. *IEEE Journal on Selected Areas in Communications*, **2019**, 37, 2377-2392	14.2	66
152	Brain-Inspired Stigmergy Learning. *IEEE Access*, **2019**, 7, 54410-54424	3.5	4
151	Deep Learning with Long Short-Term Memory for Time Series Prediction. *IEEE Communications Magazine*, **2019**, 57, 114-119	9.1	139
150	. *IEEE Access*, **2019**, 7, 101441-101452	3.5	34
149	Multicast scheduling for delay-energy trade-off under bursty request arrivals in cellular networks. *IET Communications*, **2019**, 13, 1696-1701	1.3	0
148	Deep Reinforcement Learning With Discrete Normalized Advantage Functions for Resource Management in Network Slicing. *IEEE Communications Letters*, **2019**, 23, 1337-1341	3.8	33
147	Decentralized Deep Reinforcement Learning for Delay-Power Tradeoff in Vehicular Communications **2019**,		2
146	GAN-Based Deep Distributional Reinforcement Learning for Resource Management in Network Slicing **2019**,		7
145	Fundamentals on Base Stations in Urban Cellular Networks: From the Perspective of Algebraic Topology. *IEEE Wireless Communications Letters*, **2019**, 8, 612-615	5.9	4
144	AI-Based Two-Stage Intrusion Detection for Software Defined IoT Networks. *IEEE Internet of Things Journal*, **2019**, 6, 2093-2102	10.7	76
143	The Stochastic Geometry Analyses of Cellular Networks With $alpha$ -Stable Self-Similarity. *IEEE Transactions on Communications*, **2019**, 67, 2487-2503	6.9	12
142	Optimized Computation Offloading Performance in Virtual Edge Computing Systems Via Deep Reinforcement Learning. *IEEE Internet of Things Journal*, **2019**, 6, 4005-4018	10.7	262
141	Wireless Resource Scheduling in Virtualized Radio Access Networks Using Stochastic Learning. *IEEE Transactions on Mobile Computing*, **2018**, 17, 961-974	4.6	30
140	Wireless big data in cellular networks: the cornerstone of smart cities. *IET Communications*, **2018**, 12, 1517-1523	1.3	5

#	Title	IF	Citations
139	Green Communications and Computing Networks **2018**, 56, 138-139		1
138	Deep Learning-Based Intelligent Dual Connectivity for Mobility Management in Dense Network **2018**,		15
137	Traffic Prediction Based on Random Connectivity in Deep Learning with Long Short-Term Memory **2018**,		13
136	Performance Optimization in Mobile-Edge Computing via Deep Reinforcement Learning **2018**,		64
135	Characterizing and Learning the Mobile Data Traffic in Cellular Network **2018**, 453-498		
134	Evaluation of LTP-Based DTN for Deep Space Communication **2018**,		1
133	Deep Reinforcement Learning for Resource Management in Network Slicing. *IEEE Access*, **2018**, 6, 74429-74441	3.5	110
132	Energy-Efficient Event Detection by Participatory Sensing Under Budget Constraints. *IEEE Systems Journal*, **2017**, 11, 2490-2501	4.3	21
131	Architecture and Application of SDN/NFV-enabled Space-Terrestrial Integrated Network. *Communications in Computer and Information Science*, **2017**, 244-255	0.3	
130	Green Communications and Computing Networks **2017**, 55, 160-161		
129	Adapting Downlink Power in Fronthaul-Constrained Hierarchical Software-Defined RANs **2017**,		7
128	The Emergence of Scaling Law, Fractal Patterns and Small-World in Wireless Networks. *IEEE Access*, **2017**, 5, 3121-3130	3.5	7
127	Intelligent 5G: When Cellular Networks Meet Artificial Intelligence. *IEEE Wireless Communications*, **2017**, 24, 175-183	13.4	293
126	The Learning and Prediction of Application-Level Traffic Data in Cellular Networks. *IEEE Transactions on Wireless Communications*, **2017**, 16, 3899-3912	9.6	58
125	On the Emerging of Scaling Law, Fractality and Small-World in Cellular Networks **2017**,		1
124	A revisiting to queueing theory for mobile instant messaging with keep-alive mechanism in cellular networks **2017**,		2
123	Cooperation-Based Probabilistic Caching Strategy in Clustered Cellular Networks. *IEEE Communications Letters*, **2017**, 21, 2029-2032	3.8	19
122	Decision making policy for RF energy harvesting enabled cognitive radios in decentralized wireless networks **2017**, 60, 33-45		6

121	An intelligent honeynet architecture based on software defined security **2017**,		2
120	Cooperate Caching with Multicast for Mobile Edge Computing in 5G Networks **2017**,		7
119	Joint computation offloading and data caching with delay optimization in mobile-edge computing systems **2017**,		17
118	Green Communications and Computing Networks **2017**, 55, 12-13		3
117	Network slicing as a service: enabling enterprisesTown software-defined cellular networks **2016**, 54, 146-153		164
116	On the dependence between base stations deployment and traffic spatial distribution in cellular networks **2016**,		3
115	A reality check of Base Station Spatial Distribution in mobile networks **2016**,		2
114	What is the Best Spatial Distribution to Model Base Station Density? A Deep Dive into Two European Mobile Networks. *IEEE Access*, **2016**, 4, 1434-1443	3.5	21
113	Game-Theoretic Multi-Channel Multi-Access in Energy Harvesting Wireless Sensor Networks. *IEEE Sensors Journal*, **2016**, 16, 4587-4594	4	14
112	Green communications and computing networks [Series Editorial] **2016**, 54, 106-107		10
111	Characterizing and Modeling Social Mobile Data Traffic in Cellular Networks **2016**,		4
110	Optimizing routing and server selection in intelligent SDN-based CDN **2016**,		7
109	Latency analysis of cooperative caching with multicast for 5G wireless networks **2016**,		9
108	ISD-WiFi: An intelligent SDN based solution for enterprise WLANs **2016**,		4
107	A transfer learning framework for energy efficient Wi-Fi networks and performance analysis using real data **2016**,		3
106	Energy-Efficient User Association and Downlink Power Allocation in Software Defined HetNet **2016** ,		2
105	Energy-Efficiency Oriented Traffic Offloading in Wireless Networks: A Brief Survey and a Learning Approach for Heterogeneous Cellular Networks. *IEEE Journal on Selected Areas in Communications*, **2015**, 33, 627-640	14.2	170
104	Optimal Base Station Sleeping in Green Cellular Networks: A Distributed Cooperative Framework Based on Game Theory. *IEEE Transactions on Wireless Communications*, **2015**, 14, 4391-4406	9.6	57

103	Reconfigurable Filter Bank With Complete Control Over Subband Bandwidths for Multistandard Wireless Communication Receivers. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2015**, 23, 1772-1782	2.6	11
102	On the limits of predictability in real-world radio spectrum state dynamics: from entropy theory to 5G spectrum sharing **2015**, 53, 178-183		79
101	Reciprocally opportunistic spectrum access. *Transactions on Emerging Telecommunications Technologies*, **2015**, 26, 1073-1085	1.9	2
100	Understanding the Traffic Nature of Mobile Instantaneous Messaging in Cellular Networks: A Revisiting to $alpha$ -Stable Models. *IEEE Access*, **2015**, 3, 1416-1422	3.5	11
99	Energy Efficiency Analysis of Heterogeneous Cellular Networks with Downlink and Uplink Decoupling **2015**,		9
98	Green communications and computing networks [Series Editorial] **2015**, 53, 214-215		2
97	On the $alpha$-Stable Distribution of Base Stations in Cellular Networks. *IEEE Communications Letters*, **2015**, 19, 1750-1753	3.8	22
96	Large-Scale Spatial Distribution Identification of Base Stations in Cellular Networks. *IEEE Access*, **2015**, 3, 2987-2999	3.5	29
95	A learning approach for traffic offloading in stochastic heterogeneous cellular networks **2015**,		8
94	On the Spatial Distribution of Base Stations and Its Relation to the Traffic Density in Cellular Networks. *IEEE Access*, **2015**, 3, 998-1010	3.5	38
93	Foresighted resource scheduling in software-defined radio access networks **2015**,		5
92	Green communications and computing networks [Series Editorial] **2015**, 53, 148-149		5
91	An efficient policy for D2D communications and energy harvesting in cognitive radios: Go Bayesian! **2015**,		18
90	Low complexity and efficient dynamic spectrum learning and tunable bandwidth access for heterogeneous decentralized cognitive radio networks **2015**, 37, 13-23		13
89	Spatial modeling of the traffic density in cellular networks. *IEEE Wireless Communications*, **2014**, 21, 80-88	3.4	121
88	TACT: A Transfer Actor-Critic Learning Framework for Energy Saving in Cellular Radio Access Networks. *IEEE Transactions on Wireless Communications*, **2014**, 13, 2000-2011	9.6	75
87	Adaptive multi-task compressive sensing for localisation in wireless local area networks. *IET Communications*, **2014**, 8, 1736-1744	1.3	16
86	Predicting Spectrum Occupancies Using a Non-Stationary Hidden Markov Model. *IEEE Wireless Communications Letters*, **2014**, 3, 333-336	5.9	22

85	Energy savings scheme in radio access networks via compressive sensing-based traffic load prediction. *Transactions on Emerging Telecommunications Technologies*, **2014**, 25, 468-478	1.9	26
84	The prediction analysis of cellular radio access network traffic: From entropy theory to networking practice **2014**, 52, 234-240		59
83	An adaptive scheme for data forwarding in software defined network **2014**,		7
82	A game-theoretic approach for optimal base station sleeping in green cellular networks **2014**,		5
81	SoftMobile: control evolution for future heterogeneous mobile networks. *IEEE Wireless Communications*, **2014**, 21, 70-78	13.4	41
80	Two-tier spatial modeling of base stations in cellular networks **2014**,		12
79	Characterizing spatial patterns of base stations in cellular networks **2014**,		18
78	Toward 5G: when explosive bursts meet soft cloud. *IEEE Network*, **2014**, 28, 12-17	11.4	18
77	Green communications and computing networks [Series Editoral] **2014**, 52, 102-103		2
76	An approximate algorithm of controller configuration in multi-domain SDN architecture **2014**,		4
75	Understanding the Nature of Social Mobile Instant Messaging in Cellular Networks. *IEEE Communications Letters*, **2014**, 18, 389-392	3.8	20
74	Efficient decentralized dynamic spectrum learning and access policy for multi-standard multi-user cognitive radio networks **2014**,		1
73	On the cooperation between cognitive radio users and femtocell networks for cooperative spectrum sensing and self-organization **2013**,		1
72	Efficient spectrum sensing for green cognitive radio using low complexity reconfigurable fast filter bank **2013**,		1
71	Downlink interference minimization in cooperative cognitive LTE-femtocell networks. *Eurasip Journal on Wireless Communications and Networking*, **2013**, 2013,	3.2	3
70	Combined learning for energy efficiency in heterogeneous cellular networks **2013**,		1
69	Human Mobility Patterns in Cellular Networks. *IEEE Communications Letters*, **2013**, 17, 1877-1880	3.8	26
68	Blind wireless standard identification for green radio communications **2013**,		3

#	Title		
49	Reinforcement Learning-Based Cognitive Radio for Open Spectrum Access **2012**, 195-230		
48	Regulatory Policy and Economics of Cognitive Radio for Secondary Spectrum Access **2012**, 283-317		
47	CMOS RF Transceiver Considerations for DSA **2012**, 417-464		
46	A pilot-aided channel estimation method for FBMC/OQAM communications system **2012**,		1
45	Adaptive Bayesian Compressed Sensing based localization in wireless networks **2012**,		3
44	The predictability of cellular networks traffic **2012**,		24
43	Exploration vs exploitation for distributed channel access in cognitive radio networks: A multi-user case study **2011**,		2
42	Compressed sensing for efficient random routing in multi-hop wireless sensor networks. *International Journal of Communication Networks and Distributed Systems*, **2011**, 7, 275	0.4	15
41	Energy efficiency in communications: part II [Guest Editorial] **2011**, 49, 28-29		5
40	Energy efficiency in communications: Part III **2011**, 49, 52-54		4
39	Network energy saving technologies for green wireless access networks. *IEEE Wireless Communications*, **2011**, 18, 30-38	13.4	150
38	Equalization of rotationally variant signals. *Optoelectronics, Instrumentation and Data Processing*, **2011**, 47, 253-263	0.6	
37	Reinforcement Learning Enhanced Iterative Power Allocation in Stochastic Cognitive Wireless Mesh Networks. *Wireless Personal Communications*, **2011**, 57, 89-104	1.9	4
36	Energy efficient data gathering based on distributed iLT coding **2011**,		1
35	Collaborative spectrum sharing based on information pooling for cognitive radio networks with channel heterogeneity **2011**,		1
34	Distributed anomaly event detection in wireless networks using compressed sensing **2011**,		3
33	Dynamic energy savings in heterogeneous cellular networks based on traffic prediction using compressive sensing **2011**,		5
32	A Novel Control Channel Management in CogMesh Networks **2011**,		2

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List of Publications

#	Publication		Citations
13	Improving spectrum sensing by counting rules for cognitive radio **2008**,		1
12	Decision Fusion of Cooperative Spectrum Sensing for Cognitive Radio under Bandwidth Constraints **2008**,		8
11	Ultra-Wideband Cognitive Radio for Dynamic Spectrum Accessing Networks **2008**, 353-382		
10	Transmit Power Allocation among Orthogonal Pulse Wavelets for BER Performance Improvement in Cognitive UWB Radio **2007**,		1
9	CogMesh: A Cluster-Based Cognitive Radio Network **2007**,		149
8	CogMesh: A Cluster Based Cognitive Radio Mesh Network **2007**, 657-678		13
7	**2006**,		2
6	Transmit Power Allocation among PSWF-based Pulse Wavelets in Cognitive UWB Radio **2006**,		4
5	Multiple signal waveforms adaptation in cognitive ultra-wideband radio evolution. *IEEE Journal on Selected Areas in Communications*, **2006**, 24, 878-884	14.2	44
4	Research advances in cognitive ultra wide band radio and their application to sensor networks. *Mobile Networks and Applications*, **2006**, 11, 487-499	2.9	7
3	Energy-saving techniques in cellular wireless base stations190-208		0
2	Nomadic sensor networks		7
1	The Implementation of Asynchronous Advantage Actor-Critic with Stigmergy in Network-assisted Multi-agent System		0