# DR. LIN GAO

## CONTACT INFORMATION

Department of EIE, Harbin Institute of Technology, Shenzhen

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### EDUCATION AND WORKING

• Professor (2023–Now), Associate Professor (2015–2022)

2015.09 - Now

Electronics and Information Engineering (EIE), Harbin Institute of Technology, Shenzhen, China Research Topic: "Edge/Crowd/Cloud Computing, Game Theory, and Machine Learning"

2010.08 - 2015.08

• Postdoc Fellow

Information Engineering (IE), The Chinese University of Hong Kong, Shatin, Hong Kong

Research Topic: "Network Optimizations and Economics"

• Doctor of Philosophy (Ph.D.)

2006.09 - 2010.07

Electronic Engineering (EE), Shanghai Jiao Tong University, Shanghai, China

Thesis: "Dynamic Spectrum Sharing in Cognitive Radio Networks: A Game-Theoretical Approach"

• Master of Engineering (M.E.)

2004.09 - 2007.01

Electronic Engineering (EE), Shanghai Jiao Tong University, Shanghai, China

- Thesis: "Research on Adaptive Resource Allocation for MIMO-OFDM Systems"

• Bachelor of Engineering (B.E.)

1998.09 - 2002.07

Information Engineering (IE), Nanjing University of Posts and Telecommunications, Nangjing, China

# Research Interest

### • Artificial General Intelligence and Game Theory

- AI-Generated Content and Large Language Model
- Deep Reinforcement Learning and Federated Learning
- Game-Theoretic Analysis and Incentive Mechanism Design

## • Mobile Computing and Networking

- Edge Computing, Caching, and Networking
- Mobile Crowdsensing and Crowd Computing
- Cognitive Networking and Network Intelligence

### Research Awards

- IEEE ComSoc Asia-Pacific Outstanding Young Researcher Award, IEEE ComSoc, 2016
- Best Paper Award, IEEE WCNC, 2019
- Best Paper Award, IEEE WiOPT, 2014
- Best Paper Award, IEEE WiOPT, 2013
- Best Paper Award Finalist, IEEE INFOCOM, 2016
- Best Student Paper Award, IEEE WiOPT, 2015

# TEACHING EXPERIENCES

- "Stochastic Network Optimization," 32 hours (in English), Graduate Course in the School of Electronics and Information Engineering, Harbin Institute of Technology, Shenzhen 2016 - Now
- "Communication Circuit Design", 80 hours, Undergraduate Course in the School of Electronics and Information Engineering, Harbin Institute of Technology, Shenzhen
- "Experiments for Communication Principles", 48 hours, Undergraduate Course in the School of Electronics and Information Engineering, Harbin Institute of Technology, Shenzhen 2018 - Now
- "Networks: Technology, Economics, and Social Interactions (IERG 3280)", Guest Lecture in the Department of Information Engineering, The Chinese University of Hong Kong 2013
- "Network Economics (IERG 6280)", Guest Lecture in the Department of Information Engineering, The Chinese University of Hong Kong 2011

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### RESEARCH GRANTS

- PI, "Intelligent and Collaborative Optimizations for Mobile Edge Networks," Shenzhen Science and Technology Program, 2020–2023, RMB 300k
- PI, "Multi-Dimensional Resource Optimization and Management for Edge Networks," National Natural Science Foundation of China (NSFC), 2020–2023, RMB 600k
- PI, "Multi-Dimensional Spectrum Resource Sharing Principle and Incentive," National Natural Science Foundation of China (NSFC), 2018.01–2018.12, RMB 160k
- PI, "Dynamic Spectrum Sharing and Spectrum Big Data," Research Foundation for Advanced Talents, Shenzhen, China, 2017–2019, RMB 3000k
- PI, "TV White Space Ecosystem," Scientific Research Innovation Fund, Harbin Institute of Technology, Harbin, China, 2017–2019, RMB 100k
- PI, "TV White Space Network Optimizations and Economics," Startup Research Fund, Harbin Institute of Technology, Shenzhen, China, 2015–2017, RMB 200k

### Professional Activities

#### Membership

- Senior Member, IEEE & IEEE Communications Society

#### • Editorship

- Associate Editor, IEEE Transactions on Network Science and Engineering, 2021-Now
- Associate Editor, IEEE Open Journal of the Communications Society, 2021-Now
- Editor, China Communications, 2016-Now
- Editor, Journal of Communications and Information Networks, 2017–2020
- Guest Editor, IEEE Journal on Selected Areas in Communications, 2019
- Guest Editor, Journal of Mobile Information Systems, 2015

#### • Chairing

- Vice Chair, IEEE Technical Committee on Cognitive Networks (TCCN), 2020-2022
- TPC Co-Chairs, IEEE/IFIP WiOpt 2023, Singapore, August 2023
- Tutorial Co-Chairs, IEEE/CIC ICCC 2023, Dalian, China, August 2023
- Track Chair, IEEE VTC-Fall 2022 (Track of "Wireless Networks: Protocols, Security and Services"), London/Beijing, September 2022
- Symposium Chair, IEEE ICC 2020 (Symposium of "Mobile and Wireless Networks"), Virtual Conference, May 2020
- TPC Vice Chair, IEEE/IFIP WiOpt 2018, Shanghai, China, May 2018
- Publicity & Social Media Chair, EAI GameNets 2017, Tennessee, USA, May 2017
- Publicity Chair, IEEE GSNC 2016, San Francisco, USA, April 2016
- Publicity Chair, IEEE SDP 2015, Hong Kong, April 2015
- Symposium Chair, EAI GameNets 2014 (Symposium of "Pricing and Network Optimization"), Beijing, China, Nov 2014

## • Technical Program Committee (TPC) Members

- IEEE International Conference on Computer Communications (INFOCOM), 2017-Now
- IEEE International Conference on Communications (ICC), 2012–Now
- IEEE Global Communications Conference (GLOBECOM), 2013-Now
- Asia-Pacific Conference on Communications (APCC), 2013–Now
- International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt), 2013–Now

#### • Technical Reviewers

- IEEE Journal on Selected Areas in Communications (JSAC)
- IEEE Transactions on Mobile Computing (TMC)
- IEEE/ACM Transactions on Networking (TON)
- IEEE Transactions on Wireless Communications (TWC)
- IEEE Transactions on Communications (TCOM)
- IEEE Transactions on Vehicular Technology (TVT)
- IEEE Communications Magazine
- Conferences: ACM MobiHoc, IEEE INFOCOM, ICC, GLOBECOM, DySPAN, WCNC, WiOpt

#### Google Scholar Citations (Feb 2023)

- Total Citations: **4250** (H-index: **29**, i10-index: **71**)
- Citations of the Most Cited Paper: 399
- url: https://scholar.google.com/citations?user=41wcJi4AAAAJ&hl=en

#### Book

- [1] G. Iosifidis, <u>Lin Gao</u>, J. Huang, and L. Tassiuals, "Incentive Schemes for User-Provided Fog Infrastructure," chapter in *Fog and Fogonomics: Challenges and Practices of Fog Computing, Communication, Networking, Strategy, and Economics* (Editor-in-Chief: Yang Yang), Wiley, 2020.
- [2] <u>Lin Gao</u>, L. Duan, S. Gong, and Q. Zhang, "Matching for Cooperative Spectrum Sharing", chapter in *Encyclopedia of Wireless Networks* (Editor-in-Chief: Sherman Shen), Springer, 2018
- [3] <u>Lin Gao</u>, X. Wang, Y. Xu, and Q. Zhang, "Contract-Based Secondary Spectrum Trading", chapter in *Handbook of Cognitive Radio: Cognitive Radio Resource Management* (Editor-in-Chief: Wei Zhang, Section Editors: Jianwei Huang and Xu Chen), Springer, 2017
- [4] Y. Luo, <u>Lin Gao</u>, and J. Huang, *Economics of Database-Assisted Spectrum Sharing*, Springer Briefs (Series Editor: Sherman Shen), Springer, 2016 (ISBN: 9783319432304, Page Number: 100)
- [5] J. Huang and <u>Lin Gao</u>, Wireless Network Pricing, Synthesis Lectures on Communication Networks (Series Editor: Jean Walrand), Morgan & Claypool Publishers, July 2013 (ISBN: 9781608459759, Page Number: 176)
- [6] Y. Xu, D. Li, W. Zhong, and <u>Lin Gao</u>, Resource Management of Cognitive Radio Networks: Game Theoretic Modeling and Performance Analysis (in Chinese), Publishing House of Electronics Industry, Beijing, China, October 2013 (ISBN: 9787121212420, Page Number: 256)

Journal (name\* denotes corresponding author, and name<sup>†</sup> denotes student that I supervise/co-supervise.)

Summary: 31 out of 63 journal papers are published in CCF A journals, and 61 out of 63 journal papers are published in JCR Q1 journals.

- Q. Ma, Y. Qin, C. Zhu, <u>Lin Gao</u>, and X. Chen, "Joint Resource Trading and Task Scheduling in Edge-Cloud Computing Networks," *IEEE/ACM Transactions on Networking (TON)*, Early Access, 2024 (IF:3.7, JCR Q1, CCF A)
- [2] J. Wu<sup>†</sup>, J. Luo<sup>\*</sup>, C. Jiang, and <u>Lin Gao</u><sup>\*</sup>, "A Multi-Agent Deep Reinforcement Learning Approach for Multi-UAV Cooperative Search in Multi-layered Aerial Computing Networks," *IEEE Internet of Things Journal* (*IOT*), Early Access, 2024 (IF:10.6, JCR Q1, CCF C)
- [3] J. Wu<sup>†</sup>, T. Tang, C. Jiang, <u>Lin Gao</u>\*, and B. Cao\*, "Cloud-Edge-End Collaborative Task Offloading in Vehicular Edge Networks: A Multilayer Deep Reinforcement Learning Approach," *IEEE Internet of Things Journal (IOT)*, vol.11, no.22, pp.36272-36290, Nov 2024 (IF:10.6, JCR Q1, CCF C)
- [4] C. Jiang, <u>Lin Gao</u>\*, F. Hou, and J. Li, "Economic Analysis of Edge Caching Enabled Mobile Internet Ecosystem," *IEEE Transactions on Mobile Computing (TMC)*, vol.23, no.11, pp.10647-10664, Nov 2024 (IF:7.9, JCR Q1, **CCF A**)
- [5] C. Jiang, Z. Luo, <u>Lin Gao</u>\*, and J. Li, "A Truthful Incentive Mechanism for Movement-Aware Task Offloading in Crowdsourced Mobile Edge Computing Systems," *IEEE Internet of Things Journal (IOT)*, vol.11, no.10, pp.18292-18305, May 2024 (IF:10.6, JCR Q1, CCF C)
- [6] B. Shi<sup>†</sup>, C. She, F.-C. Zheng, <u>Lin Gao</u>, and G. Li, "Puncturing-Based Resource Allocation for URLLC and eMBB Services via Matching Theory and Unsupervised Deep Learning," *IEEE Transactions on Vehicular Technology (TVT)*, vol.73, no.9, pp.13396-13411, Sep 2024 (IF:6.8, JCR Q1)
- [7] H. Wu<sup>†</sup>, X. Tang, Y. Zhang, and <u>Lin Gao</u>, "Incentive Mechanism for Federated Learning with Random Client Selection," *IEEE Transactions on Network Science and Engineering (TNSE)*, vol.11, no.2, pp.1922-1933, April 2024 (IF:6.6, JCR Q1)
- [8] Z. Chen<sup>†</sup>, Q. Ma, <u>Lin Gao</u>, and X. Chen, "Price Competition in Multi-Server Edge Computing Networks under SAA and SIQ Models," *IEEE Transactions on Mobile Computing (TMC)*, vol.23, no.1, pp.754-768, Jan 2024 (IF:7.9, JCR Q1, CCF A)

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- [9] N. Ding<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Optimal Pricing Design for Coordinated and Uncoordinated IoT Networks," *IEEE Transactions on Mobile Computing (TMC)*, vol.22, no.12, pp.7121-7137, December 2023 (IF:7.9, JCR Q1, CCF A)
- [10] C, Jiang, <u>Lin Gao</u>\*, J. Luo, P. Zhou, and J. Li, "A Game-Theoretic Analysis of Joint Mobile Edge Caching and Peer Content Sharing," *IEEE Transactions on Network Science and Engineering (TNSE)*, vol.10, no.3, pp.1445-1461, June 2023 (IF:6.6, JCR Q1)
- [11] A. Wang, Z. Qin, L. Zheng, D. Li, and <u>Lin Gao</u>, "Distributed Robust Bandits With Efficient Communication," *IEEE Transactions on Network Science and Engineering (TNSE)*, vol.10, no.3, pp.1586-1598, June 2023 (IF:6.6, JCR Q1)
- [12] J. Liu, D. Li, H. Zhao, and <u>Lin Gao</u>, "Robust Discriminant Subspace Clustering With Adaptive Local Structure Embedding," *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol.34, no.5, pp.2466-2479, May 2023 (IF:10.4, JCR Q1)
- [13] G. Zhang<sup>†</sup>, F. Hou, <u>Lin Gao</u>, G. Yang, and L. X. Cai, "Nondeterministic-Mobility-Based Incentive Mechanism for Efficient Data Collection in Crowdsensing," *IEEE Internet of Things Journal (IOT)*, vol.9, no.23, pp.23626-23638, December 2022 (IF:10.6, JCR Q1, CCF C)
- [14] Z. Wang<sup>†</sup>, <u>Lin Gao</u>\*, T. Wang, and J. Luo, "Monetizing Edge Service in Mobile Internet Ecosystem," *IEEE Transactions on Mobile Computing (TMC)*, vol.21, no.5, pp.1751-1765, May 2022 (IF:7.9, JCR Q1, **CCF A**)
- [15] J. Luo, J. Song, F. Zheng, <u>Lin Gao</u>, and T. Wang, "User-Centric UAV Deployment and Content Placement in Cache-Enabled Multi-UAV Networks," *IEEE Transactions on Vehicular Technology (TVT)*, vol.71, no.5, pp.5656-5660, May 2022 (IF:6.8, JCR Q1)
- [16] T. Wang, Y. Shen, <u>Lin Gao</u>\*, Y. Jiang, X. Zhu, and F. Zheng, "Long-Term Energy Consumption and Transmission Delay Tradeoff in Wireless-Powered Body Area Networks," *IEEE Internet of Things Journal* (*IOT*), vol.9, no.6, pp.4051-4064, March 2022 (IF:10.6, JCR Q1, CCF C)
- [17] Z. Wang<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Location-Flexible Mobile Data Service in Overseas Market," *IEEE Transactions on Mobile Computing (TMC)*, vol.21, no.2, pp.629-643, February 2022 (IF:7.9, JCR Q1, **CCF A**)
- [18] T. Wang, Y. Shen, <u>Lin Gao</u>\*, Y. Jiang\*, T. Ma, and X. Zhu, "Energy Consumption Minimization with Throughput Heterogeneity in Wireless-Powered Body Area Networks," *IEEE Internet of Things Journal (IOT)*, vol.8, no.5, pp.3369-3383, March 2021 (IF:10.6, JCR Q1, CCF C)
- [19] T. Wang, X. Yang, F. Deng, <u>Lin Gao</u>, Y. Jiang, and Z. Yang, "Joint Power and Duty-Cycle Design Using Alternating Optimization Algorithm under Energy Harvesting Architectures," *China Communications*, vol.17, no.12, pp.139-155, December 2020 (IF:4.1, JCR Q2)
- [20] C. Liu, Y. Zhang, T. Zhang, X. Wu, <u>Lin Gao</u>, and Q. Zhang, "High Throughput Vehicle Coordination Strategies at Road Intersections," *IEEE Transactions on Vehicular Technology (TVT)*, vol.69, no.12, pp.14341-14354, December 2020 (IF:6.8, JCR Q1)
- [21] T. Wang, Z. Yan, <u>Lin Gao</u>\*, Y. Jiang\*, T. Ma, and Z. Yang, "A Novel Graphics-Based Multi-Epoch Power Adjustment Strategy for WPCNs," *IEEE Transactions on Vehicular Technology (TVT)*, vol.69, no.11, pp.14093- 14098, November 2020 (IF:6.8, JCR Q1)
- [22] C. Jiang, <u>Lin Gao</u>\*, T. Wang, Y. Jiang, and J. Li, "Crowd-MECS: A Novel Crowdsourcing Framework for Mobile Edge Caching and Sharing," *IEEE Internet of Things Journal (IOT)*, vol.7, no.10, pp.9426-9440, October 2020 (IF:10.6, JCR Q1, CCF C)
- [23] Z. Wang<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Multi-Cap Optimization for Wireless Data Plans with Time Flexibility," IEEE Transactions on Mobile Computing (TMC), vol.19, no.9, pp.2145-2159, September 2020 (IF:7.9, JCR Q1, CCF A)
- [24] Z. Wang<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Duopoly Competition for Mobile Data Plans with Time Flexibility," *IEEE Transactions on Mobile Computing (TMC)*, vol.19, no.6, pp.1286-1298, June 2020 (IF:7.9, JCR Q1, **CCF A**)
- [25] M. Tang<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Communication, Computation, and Caching Resource Sharing for Internet-of-Things," *IEEE Communications Magazine*, vol.58, no.4, pp.75-80, April 2020 (IF:11.2, JCR Q1)
- [26] Z. Wang $^{\dagger}$ , <u>Lin Gao</u>, J. Huang, and B. Shou, "Toward Flexible Wireless Data Services," *IEEE Communications Magazine*, vol.57, no.12, pp.25-30, December 2019 (IF:11.2, JCR Q1)
- [27] S. Gong, <u>Lin Gao</u>, J. Xu, Y. Guo, D.T. Hoang, and D. Niyato, "Exploiting Backscatter-Aided Relay Communications With Hybrid Access Model in Device-to-Device Networks," *IEEE Transactions on Cognitive Communications and Networks* (*TCCN*), vol.5, no.4, pp.835-848, December 2019 (IF:8.6, JCR Q1)

Dr. Lin Gao – 4 – Curriculum Vitae

- [28] Z. Wang<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Exploring Time Flexibility in Wireless Data Plans," *IEEE Transactions on Mobile Computing (TMC)*, vol.18, no.9, pp.2048-2061, September 2019 (IF:7.9, JCR Q1, **CCF A**)
- [29] M. Zhang<sup>†</sup>, <u>Lin Gao</u>, J. Huang, and M. Honig, "Hybrid Pricing for Mobile Collaborative Internet," IEEE/ACM Transactions on Networking (TON), vol.27, no.3, pp.986-999, June 2019 (IF:3.7, JCR Q1, CCF A)
- [30] D. Li, <u>Lin Gao</u>, X. Sun, F. Hou, and S. Gong, "A Cellular Backhaul Virtualization Market Design for Green Small-Cell Networks," *IEEE Transactions on Green Communications and Networking (TGCN)*, vol.3, no.2, pp.468-482, June 2019 (IF:4.8, JCR Q1)
- [31] Y. Wei<sup>†</sup>, J. Yu<sup>†</sup>, T. M. Lok, and <u>Lin Gao</u>\*, "A Novel Mobile Data Contract Design with Time Flexibility," IEEE Transactions on Mobile Computing (TMC), vol.18, no.5, pp.986-999, May 2019 (IF:7.9, JCR Q1, CCF A)
- [32] T. Wang, F. Long, T. Ma, <u>Lin Gao</u>\*, Y. Jiang, and L. Chang, "Low-complexity Matrix-based Conjugate Gradient Channel Estimation for Cooperative Wireless Sensor Networks," *IEEE Transactions on Vehicular Technology (TVT)*, vol.68, no.4, pp.4078-4083, April 2019 (IF:6.8, JCR Q1)
- [33] <u>Lin Gao</u>, M. Tang, H. Pang, J. Huang, and L. Sun, "Multi-User Cooperative Mobile Video Streaming: Performance Analysis and Online Mechanism Design," *IEEE Transactions on Mobile Computing (TMC)*, vol.18, no.2, pp.376-389, February 2019 (IF:7.9, JCR Q1, CCF A)
- [34] J. Xu, Y. Zou, S. Gong, <u>Lin Gao</u>, D. Niyato, and W. Cheng, "Robust Transmissions in Wireless Powered Multi-Relay Networks with Channel Interference Constraints," *IEEE Transactions on Communications* (*TCOM*), vol.67, no.2, pp.973-987, February 2019 (IF:8.3, JCR Q1, CCF B)
- [35] L. Sun, H. Pang<sup>†</sup>, and <u>Lin Gao</u>, "Joint Sponsor Scheduling in Cellular and Edge Caching Networks for Mobile Video Delivery," *IEEE Transactions on Multimedia (TMM)*, vol.20, no.12, pp.3414-3427, December 2018 (IF:7.3, JCR Q1, **CCF B**)
- [36] M. Tang<sup>†</sup>, <u>Lin Gao</u>\*, and J. Huang, "Enabling Edge Cooperation in Tactile Internet via 3C Resource Sharing," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol.36, no.11, pp.2444-2454, November 2018 (IF:16.4, JCR Q1, **CCF A**)
- [37] M. Tang<sup>†</sup>, H. Pang<sup>†</sup>, S. Wang<sup>†</sup>, <u>Lin Gao</u>, J. Huang, and L. Sun, "Multi-Dimensional Auction Mechanisms for Crowdsourced Mobile Video Streaming," *IEEE/ACM Transactions on Networking (TON)*, vol.26, no.5, pp.2062-2075, October 2018 (IF:3.7, JCR Q1, CCF A)
- [38] Q. Ma<sup>†</sup>, <u>Lin Gao</u>\*, Y.F. Liu, and J. Huang, "Incentivizing Wi-Fi Network Crowdsourcing: A Contract Theoretic Approach," *IEEE/ACM Transactions on Networking (TON)*, vol.26, no.3, pp.1035-1048, June 2018 (IF:3.7, JCR Q1, CCF A)
- [39] C. Jiang<sup>†</sup>, <u>Lin Gao</u>, L. Duan, and J. Huang, "Data-Centric Mobile Crowdsensing," *IEEE Transactions on Mobile Computing* (*TMC*), vol.17, no.6, pp.1275-1288, June 2018 (IF:7.9, JCR Q1, CCF A)
- [40] C. Jiang<sup>†</sup>, <u>Lin Gao</u>, L. Duan, and J. Huang, "Scalable Mobile Crowdsensing via Peer-to-Peer Data Sharing," IEEE Transactions on Mobile Computing (TMC), vol.17, no.4, pp.898-912, April 2018 (IF:7.9, JCR Q1, CCF A)
- [41] X. Chen, L. Pu, <u>Lin Gao</u>\*, W. Wu, and D. Wu, "Exploiting Massive D2D Collaboration for Energy-Efficient Mobile Edge Computing," *IEEE Wireless Communications*, vol.24, no.4, pp.64-71, August 2017 (IF:12.9, JCR Q1; Google Scholar Citations: **54**, **ESI Highly Cited Paper**)
- [42] H. Yu<sup>†</sup>, M.H. Cheung, G. Iosifidis, <u>Lin Gao</u>, L. Tassiulas, and J. Huang, "Mobile Data Offloading for Green Wireless Networks," *IEEE Wireless Communications*, vol.24, no.4, pp.31-37, August 2017 (IF:12.9, JCR Q1)
- [43] H. Yu<sup>†</sup>, M.H. Cheung, <u>Lin Gao</u>, and J. Huang, "Public Wi-Fi Monetization via Advertising," *IEEE/ACM Transactions on Networking (TON)*, vol.25, no.4, pp.2110-2121, August 2017 (IF:3.7, JCR Q1, **CCF A**)
- [44] Q. Ma<sup>†</sup>, <u>Lin Gao</u>\*, Y.F. Liu, and J. Huang, "Economic Analysis of Crowdsourced Wireless Community Networks," *IEEE Transactions on Mobile Computing* (*TMC*), vol.16, no.7, pp.1856-1869, July 2017 (IF:7.9, JCR Q1, **CCF A**)
- [45] G. Iosifidis, <u>Lin Gao</u>, J. Huang, and L. Tassiulas, "Efficient and Fair Collaborative Mobile Internet Access," IEEE/ACM Transactions on Networking (TON), vol.25, no.3, pp.1386-1400, June 2017 (IF:3.7, JCR Q1, CCF A)
- [46] M. Tang<sup>†</sup>, <u>Lin Gao</u>, H. Pang, J. Huang, and L. Sun, "Optimizations and Economics of Crowdsourced Mobile Streaming," *IEEE Communications Magazine*, vol.55, no.4, pp.21-27, April 2017 (IF:11.2, JCR Q1)

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- [47] <u>Lin Gao</u>, L. Duan, and J. Huang, "Two-Sided Matching Based Cooperative Spectrum Sharing," *IEEE Transactions on Mobile Computing (TMC)*, vol.16, no.2, pp.538-551, February 2017 (IF:7.9, JCR Q1, CCF A; Google Scholar Citations: 30, ESI Highly Cited Paper)
- [48] <u>Lin Gao</u>, B. Shou, Y. Chen, and J. Huang, "Combining Spot and Futures Markets: A Hybrid Market Approach to Dynamic Spectrum Access," *Operations Research (OR)*, vol.64, no.4, pp.794–821, July 2016 (IF:3.924, JCR Q2, A<sup>+</sup> Journal in the area of Management Science & Operations Research)
- [49] Y. Luo<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "An Integrated Spectrum and Information Market for Green Cognitive Communications," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol.34, no.12, pp.3326-3338, December 2016 (IF:16.4, JCR Q1, CCF A)
- [50] Y. Luo<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "MINE GOLD to Deliver Green Cognitive Communications," *IEEE Journal on Selected Areas in Communications* (*JSAC*), vol.33, no.12, pp.2749-2760, December 2015 (IF:16.4, JCR Q1, CCF A)
- [51] Y. Luo<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Spectrum Reservation Contract Design in TV White Space Networks," IEEE Transactions on Cognitive Communications and Networks (TCCN) (Invited Paper), vol.1, no.2, pp.147-160, November 2015 (IF:8.6, JCR Q1)
- [52] Y. Luo<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Business Modeling for TV White Space Networks," *IEEE Communications Magazine*, vol.53, no.5, pp.82-88, May 2015 (IF:11.2, JCR Q1)
- [53] <u>Lin Gao</u>, G. Iosifidis, J. Huang, L. Tassiulas, and D. Li, "Bargaining-based Mobile Data Offloading," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol.32, no.6, pp.1114-1125, June 2014 (IF:16.4, JCR Q1, CCF A; Google Scholar Citations: 105)
- [54] Y. Luo<sup>†</sup>, <u>Lin Gao</u>, and J. Huang, "Price and Inventory Competition in Oligopoly TV White Space Markets," IEEE Journal on Selected Areas in Communications (JSAC), vol.33, no.5, pp.1002-1013, Oct 2014 (IF:16.4, JCR Q1, CCF A; Google Scholar Citations: 34)
- [55] G. Iosifidis, <u>Lin Gao</u>, J. Huang, and L. Tassiulas, "A Double Auction Mechanism for Mobile Data Offloading Markets," *IEEE/ACM Transactions on Networking (TON)*, vol.23, no.5, pp.1634-1647, Sept 2014 (IF:3.7, JCR Q1, CCF A; Google Scholar Citations: 122)
- [56] G. Iosifidis, <u>Lin Gao</u>, J. Huang, and L. Tassiulas, "Incentive Mechanisms for User-Provided Networks," *IEEE Communications Magazine*, vol.52, no.9, pp.20-27, September 2014 (IF:11.2, JCR Q1; Google Scholar Citations: 49)
- [57] L. Duan, <u>Lin Gao</u>, and J. Huang, "Cooperative Spectrum Sharing: A Contract-Based Approach," *IEEE Transactions on Mobile Computing (TMC)*, vol.13, no.1, pp.174-187, January 2014 (IF:7.9, JCR Q1, **CCF A**; Google Scholar Citations: **173**, **ESI Highly Cited Paper**)
- [58] <u>Lin Gao</u>, J. Huang, Y. Chen, and B. Shou, "An Integrated Contract and Auction Design for Secondary Spectrum Trading," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol.31, no.3, pp.581-592, March 2013 (IF:16.4, JCR Q1, CCF A; Google Scholar Citations: 71)
- [59] <u>Lin Gao</u>, X. Wang, Y. Xu, and Q. Zhang, "Spectrum Trading in Cognitive Radio Networks: A Contract-Theoretic Modeling Approach," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol.29, no.4, pp.843-855, April 2011 (IF:16.4, JCR Q1, CCF A; Google Scholar Citations: 295)
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- [61] L. Qian, F. Ye, <u>Lin Gao</u>, X. Gan, T. Chu, X. Tian, X. Wang, and M. Guizani, "Spectrum Trading in Cognitive Radio Networks: An Agent-Based Model under Demand Uncertainty," *IEEE Transactions on Communications* (*TCOM*), vol.59, no.11, pp.3192-3203, October 2011 (IF:8.3, JCR Q1, CCF B; Google Scholar Citations: 43)
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