

# DR. LIN GAO

## CONTACT INFORMATION

Department of EIE, Harbin Institute of Technology, Shenzhen  
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## EDUCATION AND WORKING

- **Associate Professor** 2015.09 – Now  
*Electronics and Information Engineering (EIE), Harbin Institute of Technology, Shenzhen, China*  
– Research Topic: “Mobile Crowd/Edge Computing and Machine Learning”
- **Postdoc Fellow** 2010.08 – 2015.08  
*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, Nanjing, China*

## RESEARCH INTEREST

- **Game Theory and Machine Learning**
  - Network Game Modelling and Analysis
  - Incentive Mechanism Design and Optimization
  - Deep Reinforcement Learning and Federated Learning
- **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 2018 – Now
- “**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

## RESEARCH GRANTS

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- **PI**, “Intelligent and Collaborative Optimizations for Mobile Edge Networks,” *Shenzhen Science and Technology Program*, 2020.06.01–2023.05.31, RMB **300k**
- **PI**, “Multi-Dimensional Resource Optimization and Management for Edge Networks,” *National Natural Science Foundation of China (NSFC)*, 2020.01.01–2023.12.31, RMB **600k**
- **PI**, “Multi-Dimensional Spectrum Resource Sharing Principle and Incentive,” *National Natural Science Foundation of China (NSFC)*, 2018.01.01–2018.12.31, RMB **160k**
- **PI**, “Dynamic Spectrum Sharing and Spectrum Big Data,” *Research Foundation for Advanced Talents*, Shenzhen, China, 2017.01.01–2019.12.31, RMB **3000k**
- **PI**, “TV White Space Ecosystem,” *Scientific Research Innovation Fund*, Harbin Institute of Technology, Harbin, China, 2017.01.01–2019.12.31, RMB **100k**
- **PI**, “TV White Space Network Optimizations and Economics,” *Startup Research Fund*, Harbin Institute of Technology, Shenzhen, China, 2015.09.06–2017.12.31, RMB **200k**

## PROFESSIONAL ACTIVITIES

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- **Membership**
  - Senior Member, IEEE & IEEE Communications Society
- **Editorship**
  - Associate Editor, IEEE Transactions on Network Science and Engineering, 2021–Now
  - Associate Editor, China Communications, 2016–Now
  - Associate 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 of IEEE Technical Committee on Cognitive Networks (TCCN), 2020–2022
  - Symposium Chair (Mobile and Wireless Networks) of IEEE ICC 2020, Virtual Conference, May 2020
  - TPC Vice Chair of WiOpt 2018, Shanghai, China, May 2018
  - Publicity & Social Media Chair of GameNets 2017, Tennessee, USA, May 2017
  - Publicity Chair of GSNC 2016, San Francisco, USA, April 2016
  - Publicity Chair of SDP 2015, Hong Kong, April 2015
  - Symposium Chair (Pricing and Network Optimization) of GameNets 2014, 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

## PUBLICATIONS

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### Google Scholar Citations (Dec 2020)

- Total Citations: **3345** (H-index: **26**, i10-index: **58**)
- Citations of the Most Cited Paper: **349**
- url: <https://scholar.google.com/citations?user=41wcJi4AAAAJ&hl=en>

### Book

- [1] G. Iosifidis, **Lin Gao**, J. Huang, and L. Tassiulas, "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] **Lin Gao**, 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] **Lin Gao**, 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, **Lin Gao**, 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 **Lin Gao**, *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 **Lin Gao**, *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: 27 of 52 journal papers are published in CCF A journals, and 50 of 52 journal papers are published in JCR Q1 journals.**

- [1] J. Luo, J. Song, F. Zheng, **Lin Gao**, and T. Wang, "User-Centric UAV Deployment and Content Placement in Cache-Enabled Multi-UAV Networks," *IEEE Transactions on Vehicular Technology (TVT)*, 2022, forthcoming (IF:5.379, JCR Q1)
- [2] Z. Wang<sup>†</sup>, **Lin Gao**<sup>\*</sup>, T. Wang, and J. Luo, "Monetizing Edge Service in Mobile Internet Ecosystem," *IEEE Transactions on Mobile Computing (TMC)*, 2020, forthcoming (IF:5.112, JCR Q1, CCF A)
- [3] T. Wang, Y. Shen, **Lin Gao**<sup>\*</sup>, 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, August 2021 (IF:9.936, JCR Q1)
- [4] T. Wang, Y. Shen, **Lin Gao**<sup>\*</sup>, Y. Jiang<sup>\*</sup>, 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:9.936, JCR Q1)
- [5] C. Liu, Y. Zhang, T. Zhang, X. Wu, **Lin Gao**, 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:5.379, JCR Q1)
- [6] T. Wang, Z. Yan, **Lin Gao**<sup>\*</sup>, Y. Jiang<sup>\*</sup>, 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:5.379, JCR Q1)
- [7] C. Jiang, **Lin Gao**<sup>\*</sup>, 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:9.936, JCR Q1)
- [8] Z. Wang<sup>†</sup>, **Lin Gao**, and J. Huang, "Location-Flexible Mobile Data Service in Overseas Market," *IEEE Transactions on Mobile Computing (TMC)*, vol.21, no.2, pp.629-643, August 2020 (IF:5.112, JCR Q1, CCF A)
- [9] M. Tang<sup>†</sup>, **Lin Gao**, 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:11.052, JCR Q1)

- [10] T. Wang, X. Yang, F. Deng, **Lin Gao**, 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:2.688, JCR Q3)
- [11] C. Zhang, H. Pang, **Lin Gao**, Q. Ding, Y. Yang, and L. Sun, "Incentivizing Mobile Video Users With Data Sponsoring and Edge Caching," *IEEE Access*, vol.8, pp.9640-9654, January 2020 (IF:3.745, JCR Q1)
- [12] Z. Wang<sup>†</sup>, **Lin Gao**, J. Huang, and B. Shou, "Towards Flexible Wireless Data Services," *IEEE Communications Magazine*, vol.57, no.12, pp.25-30, December 2019 (IF:11.052, JCR Q1)
- [13] Z. Wang<sup>†</sup>, **Lin Gao**, 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, June 2019 (IF:5.112, JCR Q1, CCF A)
- [14] Z. Wang<sup>†</sup>, **Lin Gao**, 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, April 2019 (IF:5.112, JCR Q1, CCF A)
- [15] M. Zhang<sup>†</sup>, **Lin Gao**, J. Huang, and M. Honig, "Hybrid Pricing for Mobile Collaborative Internet," *IEEE/ACM Transactions on Networking (TON)*, vol.27, no.3, pp.986-999, April 2019 (IF:3.315, JCR Q1, CCF A)
- [16] S. Gong, **Lin Gao**, 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, June 2019 (IF:4.574, JCR Q1)
- [17] F. Long<sup>†</sup>, T. Wang, T. Ma, **Lin Gao\***, 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, February 2019 (IF:5.379, JCR Q1)
- [18] Z. Wang<sup>†</sup>, **Lin Gao**, and J. Huang, "Exploring Time Flexibility in Wireless Data Plans," *IEEE Transactions on Mobile Computing (TMC)*, vol.18, no.9, pp.2048-2061, September 2018 (IF:5.112, JCR Q1, CCF A)
- [19] Y. Wei<sup>†</sup>, J. Yu<sup>†</sup>, T. M. Lok, and **Lin Gao\***, "A Novel Mobile Data Contract Design with Time Flexibility," *IEEE Transactions on Mobile Computing (TMC)*, vol.18, no.5, pp.986-999, July 2018 (IF:5.112, JCR Q1, CCF A)
- [20] M. Tang<sup>†</sup>, **Lin Gao\***, 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, October 2018 (IF:11.420, JCR Q1, CCF A)
- [21] J. Xu, Y. Zou, S. Gong, **Lin Gao**, 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, October 2018 (IF:5.646, JCR Q1, CCF B)
- [22] M. Tang<sup>†</sup>, H. Pang<sup>†</sup>, S. Wang<sup>†</sup>, **Lin Gao**, 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, August 2018 (IF:3.315, JCR Q1, CCF A)
- [23] **Lin Gao**, 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, May 2018 (IF:5.112, JCR Q1, CCF A)
- [24] L. Sun, H. Pang<sup>†</sup>, and **Lin Gao**, "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, May 2018 (IF:6.051, JCR Q1, CCF B)
- [25] Q. Ma<sup>†</sup>, **Lin Gao\***, 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, April 2018 (IF:3.315, JCR Q1, CCF A)
- [26] D. Li, P. Deng, Y. Xu, **Lin Gao**, and G. Zhang, "Joint Access Spectrum and Backhaul Energy Allocation for Green Cognitive Heterogeneous Networks," *IEEE Access*, vol.6, pp.24793-24808, January 2018 (IF:3.745, JCR Q1)
- [27] C. Jiang<sup>†</sup>, **Lin Gao**, L. Duan, and J. Huang, "Data-Centric Mobile Crowdsensing," *IEEE Transactions on Mobile Computing (TMC)*, vol.17, no.6, pp.1275-1288, October 2017 (IF:5.112, JCR Q1, CCF A)
- [28] C. Jiang<sup>†</sup>, **Lin Gao**, 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, August 2017 (IF:5.112, JCR Q1, CCF A)

- [29] M. Tang<sup>†</sup>, **Lin Gao**, 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:11.052, JCR Q1)
- [30] X. Chen, L. Pu, **Lin Gao**<sup>\*</sup>, 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:11.391, JCR Q1; Google Scholar Citations: **54**, **ESI Highly Cited Paper**)
- [31] H. Yu<sup>†</sup>, M.H. Cheung, G. Iosifidis, **Lin Gao**, 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:11.391, JCR Q1)
- [32] D. Li, H. Zhao, **Lin Gao**, and H. Zhu, "M2M Access With Dynamic Cognitive Virtual Operators: A Data Aggregator's Perspective," *IEEE Access*, vol.5, pp.5662-5677, April 2017 (IF:3.745, JCR Q1)
- [33] H. Yu<sup>†</sup>, M.H. Cheung, **Lin Gao**, and J. Huang, "Public Wi-Fi Monetization via Advertising," *IEEE/ACM Transactions on Networking (TON)*, vol.25, no.4, pp.2110-2121, March 2017 (IF:3.315, JCR Q1, **CCF A**)
- [34] G. Iosifidis, **Lin Gao**, 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, January 2017 (IF:3.315, JCR Q1, **CCF A**)
- [35] **Lin Gao**, 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:5.112, JCR Q1, **CCF A**; Google Scholar Citations: **30**, **ESI Highly Cited Paper**)
- [36] **Lin Gao**, 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:2.430, JCR Q2, **A<sup>+</sup> Journal** in the area of Management Science & Operations Research)
- [37] Q. Ma<sup>†</sup>, **Lin Gao**<sup>\*</sup>, 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, September 2016 (IF:5.112, JCR Q1, **CCF A**)
- [38] Y. Luo<sup>†</sup>, **Lin Gao**, 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:11.420, JCR Q1, **CCF A**)
- [39] Y. Luo<sup>†</sup>, **Lin Gao**, 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:11.420, JCR Q1, **CCF A**)
- [40] Y. Luo<sup>†</sup>, **Lin Gao**, 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:4.574, JCR Q1)
- [41] Y. Luo<sup>†</sup>, **Lin Gao**, and J. Huang, "Business Modeling for TV White Space Networks," *IEEE Communications Magazine*, vol.53, no.5, pp.82-88, May 2015 (IF:11.052, JCR Q1)
- [42] **Lin Gao**, 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:11.420, JCR Q1, **CCF A**; Google Scholar Citations: **105**)
- [43] Y. Luo<sup>†</sup>, **Lin Gao**, 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:11.420, JCR Q1, **CCF A**; Google Scholar Citations: **34**)
- [44] G. Iosifidis, **Lin Gao**, 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:3.315, JCR Q1, **CCF A**; Google Scholar Citations: **122**)
- [45] G. Iosifidis, **Lin Gao**, J. Huang, and L. Tassiulas, "Incentive Mechanisms for User-Provided Networks," *IEEE Communications Magazine*, vol.52, no.9, pp.20-27, September 2014 (IF:11.052, JCR Q1; Google Scholar Citations: **49**)
- [46] L. Duan, **Lin Gao**, 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:5.112, JCR Q1, **CCF A**; Google Scholar Citations: **173**, **ESI Highly Cited Paper**)
- [47] **Lin Gao**, 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:11.420, JCR Q1, **CCF A**; Google Scholar Citations: **71**)



- [48] **Lin Gao**, 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:11.420, JCR Q1, **CCF A**; Google Scholar Citations: **295**)
- [49] **Lin Gao**, Y. Xu, and X. Wang, "MAP: Multi-Auctioneer Progressive Auction for Dynamic Spectrum Access," *IEEE Transactions on Mobile Computing (TMC)*, vol.10, no.8, pp.1144-1161, November 2011 (IF:5.112, JCR Q1, **CCF A**; Google Scholar Citations: **211**)
- [50] L. Qian, F. Ye, **Lin Gao**, 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:5.646, JCR Q1, **CCF B**; Google Scholar Citations: **43**)
- [51] H. Yu, **Lin Gao**, Z. Li, X. Wang, and E. Hossain, "Pricing for Uplink Power Control in Cognitive Radio Networks," *IEEE Transactions on Vehicular Technology (TVT)*, vol.59, no.4, pp.1769-1778, Jan 2010 (IF:5.379, JCR Q1; Google Scholar Citations: **119**)
- [52] **Lin Gao**, X. Wang, and Y. Xu, "Multiradio Channel Allocation in Multihop Wireless Networks," *IEEE Transactions on Mobile Computing (TMC)*, vol.8, no.11, pp.1454-1468, May 2009 (IF:5.112, JCR Q1, **CCF A**; Google Scholar Citations: **39**)

**Conference** (name<sup>†</sup> denotes student that I supervise/co-supervise.)

**Summary: 46 of 70 conference papers are published in CCF A/B/C conference proceedings.**

- [53] Z. Wang<sup>†</sup>, **Lin Gao**, and J. Huang, "Socially-Optimal Mechanism Design for Incentivized Online Learning," *IEEE International Conference on Computer Communications (INFOCOM)*, Online, May 2022 (**CCF A**, Acceptance Rate: **20%**)
- [54] N. Ding<sup>†</sup>, **Lin Gao**, J. Huang, X. Li, and X. Chen, "Optimal Pricing Under Vertical and Horizontal Interaction Structures for IoT Networks," *IEEE International Conference on Computer Communications (INFOCOM)*, Online, May 2022 (**CCF A**, Acceptance Rate: **20%**)
- [55] J. Wu<sup>†</sup>, H. Lin, H. Liu, and **Lin Gao**<sup>\*</sup>, "A Deep Reinforcement Learning Approach for Collaborative Mobile Edge Computing," *IEEE International Conference on Communications (ICC)*, Seoul, South Korea, May 2022 (**CCF C**)
- [56] M. Li<sup>†</sup>, C. Jiang, **Lin Gao**<sup>\*</sup>, T. Wang, and Y. Jiang, "Incentivizing Mobile Edge Caching and Sharing: An Evolutionary Game Approach," *IEEE Global Communications Conference (GLOBECOM)*, Madrid, Spain, December 2021 (**CCF C**)
- [57] Z. Chen, Q. Ma, **Lin Gao**, and X. Chen, "Edgeconomics: Price Competition and Selfish Computation Offloading in Multi-Server Edge Computing Networks," *International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt)*, Online, October 2021
- [58] Z. Wang<sup>†</sup>, **Lin Gao**, and J. Huang, "Taming Time-Varying Information Asymmetry in Fresh Status Acquisition," *IEEE International Conference on Computer Communications (INFOCOM)*, Online, May 2021 (**CCF A**, Acceptance Rate: **20%**)
- [59] W. He<sup>†</sup>, **Lin Gao**<sup>\*</sup>, and J. Luo, "A Multi-Layer Offloading Framework for Dependency-Aware Tasks in MEC," *IEEE International Conference on Communications (ICC)*, Montreal, Canada, June 2021 (**CCF C**)
- [60] T. Nie<sup>†</sup>, J. Luo, **Lin Gao**, F.-C. Zheng, and L. Yu, "Joint Service Scheduling and Content Caching Over Unreliable Channels," *IEEE Global Communications Conference (GLOBECOM)*, Taipei, Taiwan, December 2020 (**CCF C**)
- [61] Z. Wang<sup>†</sup>, **Lin Gao**, and J. Huang, "Travel with Your Mobile Data Plan: A Location-Flexible Data Service," *IEEE International Conference on Computer Communications (INFOCOM)*, Toronto, Canada, July 2020 (**CCF A**, Acceptance Rate: **20%**)
- [62] Y. Pan<sup>†</sup>, **Lin Gao**<sup>\*</sup>, J. Luo, T. Wang, and J. Luo, "A Multi-Dimensional Resource Crowdsourcing Framework for Mobile Edge Computing," *IEEE International Conference on Communications (ICC)*, Dublin, Ireland, June 2020 (**CCF C**)
- [63] C. Jiang, **Lin Gao**<sup>\*</sup>, T. Wang, J. Luo and F. Hou, "On Economic Viability of Mobile Edge Caching," *IEEE International Conference on Communications (ICC)*, Dublin, Ireland, June 2020 (**CCF C**)
- [64] L. Zhang<sup>†</sup>, J. Luo, **Lin Gao**, and F.-C. Zheng, "Learning-Based Computation Offloading for Edge Networks with Heterogeneous Resources," *IEEE International Conference on Communications (ICC)*, Dublin, Ireland, June 2020 (**CCF C**)

- [65] Z. Wang<sup>†</sup>, **Lin Gao**, J. Huang, and B. Shou, “Economic Viability of Data Trading with Rollover,” *IEEE International Conference on Computer Communications (INFOCOM)*, Paris, France, May 2019 (CCF A, Acceptance Rate: **20%**)
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