

# Dr. Jingwen Tong

Postdoctoral Fellow

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## Work Experience

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### Postdoctoral Fellow

Jun. 2022 - Present

Department of Electronic and Computer Engineering (ECE)

*The Hong Kong University of Science and Technology (HKUST)*

Room 3112A, Academic Building, HKUST, Clear Water Bay, Kowloon, NT, Hong Kong

**Research Supervisor:** Prof., Jun Zhang and Prof. Khaled B. Letaief

## Biography

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### Ph.D. Degree, Dept. of Informatics and Communication Engineering

Sep. 2018 - Jun. 2022

*Xiamen University*, Xiamen, China

**Research Supervisor:** Professor, Liqun Fu

### Visiting Scholar, Dept. of Electrical and Computer Engineering

Oct. 2019 - Nov. 2020

*University of Houston*, Houston, USA

**Research Supervisor:** Professor, Zhu Han

### M.S. Degree, Communication and Information System

Sep. 2015 - Jun. 2018

*Ningbo University*, Ningbo, China

**Research Supervisor:** Professor, Ming Jin

### B.S., Degree, Communication Engineering

Sep. 2011 - Jun. 2015

*China Jiliang University*, Hangzhou, China

## Journals

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1. **Jingwen Tong**, Liqun Fu, Jun Zhang, and Khaled Letaief. A Federated Online Restless Bandit Framework for Cooperative Resource Allocation [J], *IEEE Transactions on Mobile Computing*, (Dec. 2023, Submitted).
2. Liqun Fu, **Jingwen Tong**, Tongtong Lin, and Jun Zhang. Online Resource Allocation for User Experience Improvement in Mobile Edge Clouds [J], *IEEE Transactions on Wireless Communications*, (Minor Revision).
3. **Jingwen Tong**, Zhenzhen Chen, Liqun Fu, Jun Zhang, and Zhu Han. From Learning to Analytics: Improving Model Efficacy with Goal-Directed Client Selection [J], *IEEE Transactions on Mobile Computing*, To appear, 2024.
4. Minghui Min, Haopeng Zhu, Shuang Yang, Junhuai Xu, **Jingwen Tong**, and Jiangang Shu. Geo-Perturbation for Task Allocation in 3D Mobile Crowdsourcing: An A3C-based Approach [J]. *IEEE Internet of Things Journal*, Vol. 11, No. 2, pp. 1854-1865, Oct. 2023.
5. **Jingwen Tong**, Liqun Fu, Yizhe Wang, and Zhu Han. Model-Based Thompson Sampling for Frequency and Rate Selection in Underwater Acoustic Communications [J], *IEEE Transactions on Wireless Communications*, Vol. 22, No. 10, pp. 6846-6961, Oct. 2023.

6. **Jingwen Tong**, Liqun Fu, and Zhu Han. Age-of-Information Oriented Scheduling for Multi-Channel IoT Systems with Correlated Sources [J], *IEEE Transactions on Wireless Communications*, vol. 21, no. 11, pp. 9775-9790, Jun. 2022.
7. **Jingwen Tong**, Hongliang Zhang, Liqun Fu, Amir Leshem, and Zhu Han. Two-Stage Resource Allocation in Reconfigurable Intelligent Surface Assisted Hybrid Networks via Multi-Player Bandits [J], *IEEE Transactions on Communications*, vol. 70, no. 5, pp. 3526-3541, May 2022.
8. **Jingwen Tong**, Liqun Fu, and Zhu Han. Throughput Enhancement of Full-Duplex CSMA Networks Using Multi-Player Bandits [J], *IEEE Internet of Things Journal*, 2021, Mar. 3, 15(8):11807-11821.
9. **Jingwen Tong**, Ming Jin, Qinghua Guo, and Youming Li. Cooperative Spectrum Sensing: A Blind and Soft Fusing Detector [J], *IEEE Transactions on Wireless Communications*, 2018, Apr. 4, 17(4):2726-2737.
10. **Jingwen Tong**, Ming Jin, Qinghua Guo, and Long Qu. Energy Detection under Interference Power Uncertainty [J], *IEEE Communications Letters*, 2017, Aug. 1, 21(8):1887-1890.

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## Conferences

1. Weiya Ni, **Jingwen Tong**, Liqun Fu, and Jun Zhang. HetU-ORA: Online Resource Allocation in Mobile Edge Clouds with Heterogeneous Users [C], *IEEE Global Communications Conference (GLOBECOM)*, 2024, Submitted.
2. Shumin Lian, **Jingwen Tong**, Liqun Fu, and Jun Zhang. IEEE 802.11be Multi-Link Operation: Best Arm Identification-Enabled MCTS Method [C], *IEEE Global Communications Conference (GLOBECOM)*, 2024, Submitted.
3. Zhenzhen Chen, **Jingwen Tong**, Liqun Fu, and Zhu Han. Over-the-Air Computing Aided Federated Learning and Analytics via Belief Propagation Based Stochastic Bandits [C], *IEEE International Conference on Communications (ICC)*, 2022, May, Seoul, Korea.
4. **Jingwen Tong**, Shuyue Lai, Liqun Fu, and Zhu Han. Optimal Frequency and Rate Selection Using Unimodal Objective Based Thompson Sampling Algorithm [C], *IEEE International Conference on Communications (ICC)*, 2020, Jun. 7, Dublin, Ireland.
5. **Jingwen Tong**, Liqun Fu, and Zhu Han. Throughput Enhancement of Full-Duplex CSMA Networks via Adversarial Multi-Player Multi-Armed Bandit [C], *IEEE Global Communications Conference (GLOBECOM)*, 2019, Dec. 9, Waikoloa, HI, USA.

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## Research Interests

- Multi-Armed Bandit (MAB), Optimization
- Resource Allocation in Wireless Communications
- Security and Privacy in Large Language Model (LLM)
- Foundation Model for Wireless Communications

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## Service

### Conference Chair:

- IEEE/CIC International Conference on Communications in China (ICCC), Session chair, Xiamen, Jul. 2021

- Huawei-HKUST Joint Workshop on Theory for Future Wireless, Organization Co-chairs, Hong Kong, Sept. 2022
- IEEE Hong Kong 6G Wireless Summit (HK6GWS), Webmaster Chair, Hong Kong, Sept. 2023
- IEEE Hong Kong 6G Wireless Summit (HK6GWS), Webmaster Chairs, Hong Kong, Upcoming, 2024

#### Technical Program Committee:

- IEEE Global Telecommunications Conference (Globecom), 2023
- IEEE Wireless Communications and Networking Conference (WCNC Workshop WS-15), 2024
- IEEE International Conference on Communications (ICC Workshop WS06), 2024

#### Review for:

- IEEE Transaction on Wireless Communications
- IEEE Transaction on Communications
- IEEE Transaction on Vehicular Technology
- IEEE Transaction on Cognitive Communications and Networking
- IEEE Communications Magazine
- IEEE Transactions on Mobile Computing
- IEEE Journal on Selected Areas in Communications
- IEEE Communications Letters
- IEEE Wireless Communications Letters
- Journal of Communications and Information Networks
- Conferences: ICC, GLOBECOM, INFOCOM, VTC, WCNC

#### Awards and Honors

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<b>Excellent doctoral dissertation</b> , Xiamen University	<i>2022</i>
<b>Outstanding Graduate</b> , Xiamen University	<i>2022</i>
<b>Wande scholarship</b> , Xiamen University	<i>2022</i>
<b>IEEE ComSoc Student Travel Grant</b> , IEEE ComSoc	<i>2020</i>
<b>The Chinese Government Scholarship</b> , China Scholarship Council	<i>2019</i>
<b>First-class Scholarship</b> , Ningbo University	<i>2018</i>
<b>Outstanding Graduate</b> , Ningbo University	<i>2018</i>
<b>Ningbo Graduate Academic Festival</b> , Gold Award, Ningbo City	<i>2017</i>
<b>National Graduate Mathematical Contest in Modeling</b> , Second Prize, Ministry of Education	<i>2017</i>
<b>National Graduate Mathematical Contest in Modeling</b> , Second Prize, Ministry of Education	<i>2016</i>
<b>National Inspirational Scholarship</b> (2/80), Chinese Government	<i>2013</i>
<b>National Undergraduate Electronic Design Competition</b> , Second Prize, Ministry of Education	<i>2013</i>