Shiming Yu

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Education

The Hong Kong Polytechnic University	*Aug 2022 – Now*
Ph.D. Candidate in Computer Science (Advisor: Prof. Yuanqing Zheng)	
University of Electronic Science and Technology of China	*Aug 2018 – Jul 2022*
B.E. in Communication Engineering (GPA: 3.8/4.0)	

Research Interest

My research interests include Low Power Wide Area Networks (LPWANs) and Wireless Networking.

Publications

First-author papers:

[C1] Are LoRa Logical Channels Really Orthogonal? Practically Orthogonalizing Massive Logical Channels   **MobiSys 2025**   *Acceptance ratio: 18.03%*

Shiming Yu, Ziyue Zhang, Xianjin Xia, Yuanqing Zheng, Jiliang Wang

The 23rd ACM International Conference on Mobile Systems, Applications, and Services

[C2] Revolutionizing LoRa Gateway with XGate: Scalable Concurrent Transmission across Massive Logical Channels   **MobiCom 2024**   *Acceptance ratio: 20.85%*

Shiming Yu, Xianjin Xia, Ningning Hou, Yuanqing Zheng, Tao Gu

The 30th Annual International Conference on Mobile Computing and Networking

[C3] FDLoRa: Tackling Downlink-Uplink Asymmetry with Full-duplex LoRa Gateways   **SenSys 2024**   *Acceptance ratio: 18.53%*

Shiming Yu, Xianjin Xia, Ziyue Zhang, Ningning Hou, Yuanqing Zheng

The 22nd ACM Conference on Embedded Networked Sensor Systems

[J1] XGate: Scaling LoRa Communications to Massive Logical Channels

Shiming Yu, Xianjin Xia, Ningning Hou, Yuanqing Zheng, Tao Gu

IEEE/ACM Transactions on Networking, 2025

Other papers:

[C4] From Interference Mitigation to Toleration: Pathway to Practical Spatial Reuse in LPWANs   **MobiCom 2025**   *Acceptance ratio: 17.08%*

Ruonan Li, Ziyue Zhang, Xianjin Xia, Ningning Hou, Wenchang Chai, Shiming Yu, Yuanqing Zheng, Tao Gu

The 31st Annual International Conference on Mobile Computing and Networking

[C5] MoLoRa: Intelligent Mobile Antenna System for Enhanced LoRa Reception in Urban Environments   **SenSys 2025**   *Acceptance ratio: 18.78%*

Ningning Hou, Yifeng Wang, Xianjin Xia, Shiming Yu, Yuanqing Zheng, Tao Gu

The 23rd ACM Conference on Embedded Networked Sensor Systems

Professional Services

Program Committee Member
- ○ ACM MobiCom Artifact Evaluation Committee — 2024-25
- ○ ACM MobiSys Artifact Evaluation Committee — 2024-25

Invited Reviewer
- ○ ACM Transactions on Sensor Networks — 2023,2025
- ○ IEEE Transactions on Wireless Communications — 2023
- ○ IEEE Internet of Things Journal — 2024
- ○ Computer Networks — 2023

Awards

- ○ Student Travel Grant, ACM MobiCom — 2024
- ○ Best Oral Presentation Award, PolyU CRSC — 2024
- ○ Full Ph.D. Scholarship, PolyU — 2024
- ○ Outstanding Student Scholarship (Top 15%) — 2022-Now
- ○ National Encouragement Scholarship — 2020
- ○ Outstanding Student Scholarship (Top 15%) — 2019