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## HONORS

- Outstanding Paper Award, China Association for Science and Technology, 2022.
- Outstanding Doctoral Dissertation Award, Anhui Province, 2025.

## SERVICES

**TPC Member:** IEEE Global Communications Conference (GLOBECOM 2024, 2025); International Wireless Communications & Mobile Computing Conference (IWCMC 2025).

**Session Chair:** The International Conference on Wireless Communications and Signal Processing (WC&SP), 2024.

**Reviewer:** IEEE Network, IEEE JSAC, China Communications, IEEE TNSM, IEEE/ACM ToN, IEEE Computational Intelligence Magazine, Quantum Information Processing, IET Quantum Communications.

## INTERESTS

Quantum Networking, Distributed Quantum Computing, Quantum Artificial Intelligence.

## BIOGRAPHY

I am currently an Associate Professor at the School of Electronic and Information Engineering, Anhui University. I received my Ph.D degree from the School of Cyber Science and Technology, University of Science and Technology of China (USTC) in 2023, supervised by [Prof. Kaiping Xue](#). From 2023 to 2025, I served as a postdoctoral researcher at the School of Information Science and Technology, USTC. My current research interests include quantum networking, distributed quantum computing, and quantum artificial intelligence. So far, I have published more than 20 papers in international journals or conferences such as IEEE Communications Surveys & Tutorials, IEEE/ACM Transactions on Networking (ToN), IEEE Network, IEEE Transactions on Network and Service Management (TNSM). Besides, I have been invited many times to be a reviewer for international journals such as China Communications, IEEE Network, IEEE TNSM, IEEE/ACM ToN.

## EXPERIENCES

**Anhui University** 2025–Now  
School of Electronic and Information Engineering, Associate Professor.

**University of Science and Technology of China** 2023–2025  
School of Information Science and Technology, Post-Doctoral Researcher.

**University of Science and Technology of China** 2018–2023  
School of Cyber Science and Technology, Ph.D

**University of Electronic Science and Technology of China** 2014–2018  
School of Information and Software Engineering, Bachelor.

## PROJECTS

**National Natural Science Foundation of China** 2025.01–2027.12  
Research on Key Technologies for End-to-End Entanglement Delivery in Future Large-Scale Quantum Information Networks, ongoing, PI.

**Anhui Provincial Natural Science Foundation** 2024.09–2026.08  
Research on Key Network Technologies for Data Qubit Transmission in Entanglement-assisted Quantum Communication Networks, ongoing, PI,

## SELECTED PUBLICATIONS

- **Zhonghui Li**, Kaiping Xue\*, Jian Li, Nenghai Yu, David S. L. Wei, Ruidong Li. “[Connection-oriented and Connectionless Remote Entanglement Distribution Strategies in Quantum Networks](#),” *IEEE Network*, vol. 36, no. 6, pp. 150-156, 2022.
- **Zhonghui Li**, Kaiping Xue\*, Jian Li, Lutong Chen, Ruidong Li, Zhaoying Wang, Nenghai Yu, David S. L. Wei, Qibin Sun, Jun Lu. “[Entanglement-Assisted Quantum Networks: Mechanics, Enabling Technologies, Challenges, and Research Directions](#),” *IEEE Communications Surveys and Tutorials*, vol. 25, no. 4, pp. 2133-2189, 2023.
- **Zhonghui Li**, Kaiping Xue\*, Jian Li, Nenghai Yu, David S. L. Wei, Ruidong Li. “[Efficient Remote Entanglement Distribution in Quantum Networks: A Segment-based Method](#),” *IEEE Transactions on Network and Service Management*, vol. 21, no. 1, pp. 249-265, 2024.
- **Zhonghui Li**, Jian Li\*, Kaiping Xue\*, Lutong Chen, Nenghai Yu, Qibin Sun, Jun Lu. “[NarrowGap: Reducing Bottlenecks for End-to-End Entanglement Distribution in Quantum Networks](#),” *IEEE/ACM Transactions on Networking*, vol. 33, no. 1, pp. 162-177, 2025.
- Jian Li, Peng Zheng, **Zhonghui Li\***, Yuqi Yang, Nenghai Yu, Qibin Sun, Jun Lu. “[Decentralized Key Management and Service in Quantum Key Distribution Networks: An Experimental Implementations](#),” accepted by *IEEE Journal on Selected Areas in Communications*, 2025.