

**Name:** Ziqiang Wang

**Birth Date:** 1994.10.15

**Nationality:** China

**Mail:** [ziqiangwang518@163.com](mailto:ziqiangwang518@163.com)

**Google scholar:** [https://scholar.google.com/citations?user=9c\\_bt5kAAAAJ&hl=en](https://scholar.google.com/citations?user=9c_bt5kAAAAJ&hl=en)

**Homepage:** <https://zqiang-wang.github.io/>



## Education

- **Visiting Scholar**, Major in Integrated Sensing and Communication, co-supervised by **Prof. Mikko Valkama**, Tampere Wireless Research Center, Tampere University, Tampere, Finland, 2022.10-2024.05.
- **MSc. and PhD.**, Major in Information and Communication Engineering, supervised by **Prof. Qun Wan**, Radar and Positioning Group, UESTC, Chengdu, China, 2017-2019-2024.06.
- **B.E.**, Major in Electronic and Information Engineering, UESTC, Chengdu, China, 2012-2016.

## Research Interests

- **Direct position determination**, Indoor positioning, Array signal processing, Joint angle and delay estimation, Quantized signal processing, Deep unfolding technique, Near-field localization and sensing

## Publications

- **(First Author)**: Ziqiang Wang, Bo Tan, Elena Simona Lohan, Lihua Ni, Mikko Valkama, Qun Wan. "Majorization–Minimization Based Direct Localization Using One-Bit Channel Measurements." **IEEE Wireless Communications Letters** (2024).
- **(First Author)**: Ziqiang Wang, Yimao Sun, Lei Xie, Ning Liu, Qun Wan "An Iterative Direct Position Determination Approach Based on Doppler Frequency Shifts." **IEEE Transactions on Vehicular Technology** (2023).
- **(First Author)**: Ziqiang Wang, Lei Xie, Qun Wan "Beamspace Joint Azimuth, Elevation and Delay Estimation for Large-Scale MIMO-OFDM System" **IEEE Transactions on Instrumentation and Measurement** (2023).
- **(First Author)**: Ziqiang Wang, Yimao Sun, Qun Wan, Lei Xie, Ning Liu "A Modest Power Consumption Maximum Likelihood Direct Position Determination Approach for Multiple Targets with Moving Sensor Arrays." **IEEE Sensors Journal** (2022).
- **(First Author)**: Ziqiang Wang, Kegang Hao, Yimao Sun, Lei Xie, Qun Wan "A Computationally Efficient Direct Position Determination Algorithm Based on OFDM System." **IEEE Communications Letters** (2022).
- **(Third Author)**: Lihua Ni, Di Zhang, Ziqiang Wang, Jing Liang, Jie Zhuang, Qun Wan "Fast copula-based fusion of correlated decisions for distributed radar detection." **Signal Processing** (2022).

## Representative Project

- 5G high accuracy indoor position project using channel state information, 2019.9-2020.9

**Target:** TDOA localization assisted by angle information, the position estimation error of 90% real data  $\leq 20\text{cm}$

**Solution:** direction position determination and optimal beam selection to mitigate the impact of multipath

## Award

- The National First Prize of the Fifteenth National Post-Graduate Mathematical Contest in Modeling, 2018.11

## Skill

- Matlab, Python, Pytorch, Linux