Yongtai Yin

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Research Interests

Optimization for Signal Processing, Deep Learning (Generative Models), Wireless Sensing

Education

The Chinese University of Hong Kong (CUHK) — **Hong Kong SAR**
Ph.D. Student in Electronic Engineering — *2024 – Present*
- Supervisor: Wing-Kin Ma

Northwestern Polytechnical University (NWPU) — **Xi'an, China**
M.Eng. in Information and Communication Engineering — *2021 – 2024*
- Supervisors: Ling Wang and Yuexian Wang

Northwestern Polytechnical University (NWPU) — **Xi'an, China**
B.Eng. in Communication Engineering — *2017 – 2021*

Publications

- **Y. Yin**, J. Liu, W.-K. Ma*, "Error Bound Based Exact Penalization for Cardinality-Constrained Clustering," in *Proc. Int. Conf. Acoust. Speech Signal Process. (ICASSP)*, 2026
- **Y. Yin**, Y. Wang*, T. Dai, et al. "DOA Estimation Based on Smoothed Sparse Reconstruction with Time-Modulated Linear Arrays," *Signal Process.*, 2024 **[DOI]**
- **Y. Yin**, Y. Wang*, Y. Gong, et al. "Joint Multipath Channel Estimation and Array Channel Inconsistency Calibration for Massive MIMO Systems," *IEEE Internet Things J.*, 2024 **[DOI]**
- Y. Wang, M. S. Obaidat, **Y. Yin**, et al. "Robust Sparse Direct Localization of Smart Vehicle With Partly Calibrated Time Modulated Arrays," *IEEE Trans. Intell. Transp. Syst.*, 2023 **[DOI]**
- **Y. Yin**, Y. Wang*, Y. Gong, et al. "Biquaternion-Based DOA Estimation of Noncircular Signals with Time-Modulated Antenna Arrays," *AEU Int. J. Electron. Commun.*, 2023 **[DOI]**

Technical Skills

Expertise	Matrix Analysis, Optimization, Statistical & Array Signal Processing
Programming	Python (PyTorch, NumPy, SciPy), MATLAB, C/C++
Tools	Git, Linux/Shell, LaTeX

Honors & Awards

- **Postgraduate Studentship**, CUHK, 2024 – Present
- **Outstanding Master's Thesis**, NWPU, 2024
- **Outstanding Graduates** (Postgraduates & Undergraduates), NWPU, 2024 & 2021