

Yuhua Jiang

Tsinghua University

E-mail: jiangyh221600@gmail.com

Homepage: <https://yuhuaijiang2002.github.io>



EDUCATION

Graduated from Tsien Excellence in Engineering Program (Qian Xuesen Mechanics Class) **with honors** at Tsinghua University

- Academics: Overall GPA: **3.93/4.00**.
- Selected Coursework: Advanced Algebra and Geometry(1,2) (A+), University Physics(1) (A+), Quantum Mechanics (A+), Methods of Mathematical Physics (A+), Foundations of Scientific and Engineering Computing (A+), Students Research Training Project (A+)
- Honors: ***Presidential Scholarship of Tsinghua University (The highest honor for undergraduates of Tsinghua University, awarded to 10 undergraduates annually)***, Outstanding Graduate of Tsinghua University (2024), Honors bachelor's degree (2024) Comprehensive Excellent Scholarship of Tsinghua University (2021-2023)
- Awards: The first prize of the National Mathematics Competition for College Students (2022), The first prize of the National Physics Competition for College Students (2022), The first prize of National College Students Extracurricular Academic Science and Technology Works Competition Final (2022)

CONFERENCE PUBLICATIONS

- [1] **Yuhua Jiang**, Feifei Gao, Yimin Liu, Shi Jin, and Tie Jun Cui, "Near field computational imaging with RIS generated virtual masks", 2024 *IEEE Wireless Communications and Networking Conference (WCNC)*, Dubai, Apr. 2024 (**Best Paper Award**)
- [2] **Yuhua Jiang**, Wanmai Yuan, and Feifei Gao, "RIS design for CRB optimization in source localization with electromagnetic interference" , 2023 *IEEE/CIC International Conference on Communications in China (ICCC)*, Dalian, Aug. 2023 (oral presentation)

JOURNAL PUBLICATIONS

- [1] **Yuhua Jiang**, Feifei Gao, Shi Jin, and Tie Jun Cui, "Electromagnetic property sensing based on diffusion model in ISAC system." *IEEE Transactions on Wireless Communications*, Dec. 2024.
- [2] **Yuhua Jiang**, Feifei Gao, Shi Jin, and Tie Jun Cui, "Electromagnetic property sensing in ISAC with multiple base stations: Algorithm, pilot design, and performance analysis," *IEEE Transactions on Wireless Communications*, Jan. 2025.
- [3] **Yuhua Jiang**, Feifei Gao, and Shi Jin, "Electromagnetic property sensing: A new paradigm of integrated sensing and communication," *IEEE Transactions on Wireless Communications*, Oct. 2024.
- [4] **Yuhua Jiang**, Feifei Gao, Yimin Liu, Shi Jin, and Tie Jun Cui, "Near-field computational imaging with RIS generated virtual masks," *IEEE Transactions on Antennas and Propagation*, vol. 72, no. 5, pp. 4383–4398, Apr. 2024.
- [5] **Yuhua Jiang**, Feifei Gao, Mengnan Jian, Shun Zhang, and Wei Zhang, "Reconfigurable intelligent surface for near field communications: beamforming and sensing," *IEEE Transactions on Wireless Communications*, vol. 22, no. 5, pp. 3447–3459, May 2023.
- [6] **Yuhua Jiang** and Feifei Gao, "Electromagnetic channel model for near field MIMO systems in the half space," *IEEE Communications Letters*, vol. 27, no. 2, pp. 706–710, Feb. 2023.

MANUSCRIPTS UNDER REVIEW

- [1] **Yuhua Jiang**, Feifei Gao, and Shi Jin, "Electromagnetic property sensing and channel reconstruction based on diffusion Schrödinger bridge in ISAC." *arXiv preprint arXiv:2409.11651*.