

# Dingjia Lin

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🔗 <https://dingjia-lin.github.io/>    in Dingjia Lin    📄 Dingjia Lin    📺 Dingjia Lin

## Education

<b>PhD</b>	<b>University of Manchester, UK</b> <ul style="list-style-type: none"><li>Supervisor: <a href="#">Prof. Zhiguo Ding (FIEEE)</a> 📄</li><li>Department of Electrical and Electronic Engineering</li></ul>	03/2021 – 01/2025
<b>MSC</b>	<b>University of Southampton, UK</b> <ul style="list-style-type: none"><li>School of Electronics and Computer Science</li><li>Mobile Communication and Smart Networking</li></ul>	09/2019 – 12/2020
<b>MSC</b>	<b>University of Sheffield, UK</b> <ul style="list-style-type: none"><li>Department of Electronic and Electrical Engineering</li><li>Wireless Communication System</li></ul>	09/2017 – 12/2018
<b>BEng</b>	<b>Chongqing University of Posts and Telecommunications, China</b> <ul style="list-style-type: none"><li>College of Communication and Information Engineering</li><li>Communication Engineering</li></ul>	09/2013 – 06/2017

## Experience

<b>King's College London</b> , Research Associate	London, UK
<ul style="list-style-type: none"><li>Research on the optimization process edge computing in the cell-free and massive MIMO networks. (Supervisor: <a href="#">Prof. Toktam Mahmoodi</a> 📄)</li></ul>	Nov. 2024 – Mar. 2025

## Research Interests

Non-Orthogonal Multiple Access (NOMA), Backscatter Communication (BackCom), Convex Optimization, Non-Convex Optimization, Matching Theory, Cognitive Radio, Fluid Antenna System (FAS), Cell-Free, Massive MIMO, Edge Computing, Visible Light Communication (VLC)

## Publications

<b>[J4] EE Maximization with Imperfect CSI at Transmitter in BackCom NOMA System</b> <b>Dingjia Lin</b> , Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding <i>in IEEE Transactions on Vehicular Technology (Early Access)</i> doi: <a href="https://doi.org/10.1109/TVT.2025.3557244">10.1109/TVT.2025.3557244</a> 📄	Apr 2025
<b>[J3] Energy-Efficiency Maximization in Backscatter Communication Based Non-Orthogonal Multiple Access System: Dinkelbach and Successive Convex Approximation Approaches</b> <b>Dingjia Lin</b> , Tianqi Wang, Kaidi Wang, Zhiguo Ding <i>in IET Signal Processing</i> , 2024, 4107801, 12 pages doi: <a href="https://doi.org/10.1049/2024/4107801">10.1049/2024/4107801</a> 📄	Aug 2024
<b>[C1] Uplink Data Rate Maximization with Channel Uncertainties in BackCom NOMA System</b> <b>Dingjia Lin</b> , Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding <i>2024 International Symposium on Wireless Communication Systems (ISWCS), Rio de Janeiro, Brazil, 2024, pp. 1-6</i> doi: <a href="https://doi.org/10.1109/ISWCS61526.2024.10639114">10.1109/ISWCS61526.2024.10639114</a> 📄	Jul 2024

**[J2] Uplink Data Rate Maximization in Multi-Cell BackCom NOMA Systems**

Jan 2024

**Dingjia Lin**, Kaidi Wang, Tianqi Wang, Zhiguo Ding

in *IEEE Open Journal of the Communications Society*, vol. 5, pp. 526-539, 2024

doi: [10.1109/OJCOMS.2023.3349277](https://doi.org/10.1109/OJCOMS.2023.3349277) 

**[J1] Beamforming Design for BackCom Assisted NOMA Systems**

May 2023

**Dingjia Lin**, Kanapathippillai Cumanan, Zhiguo Ding

in *IEEE Wireless Communications Letters*, vol. 12, no. 9, pp. 1494-1498, Sept. 2023

doi: [10.1109/LWC.2023.3279668](https://doi.org/10.1109/LWC.2023.3279668) 

## Publications (Submitted and in Preparation)

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**[P1] Power Minimization in FAS Assisted NOMA Networks**

in Preparation

**Dingjia Lin**, Kaidi Wang, Tianqi Wang, Zhiguo Ding

**[P2] Cell-Free Networks Versus Massive MIMO: Optimizing Power Efficiency and Task Offloading**

in Preparation

**Dingjia Lin**, Stefano Buzzi, Toktam Mahmoodi

## Additional Skills

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**IT Skills:** Python, MATLAB,  $\text{\LaTeX}$ , MS Office, Photoshop, Lightroom.

**Languages:** English – fluent, Chinese – native.

**Interests:** Photography; Reading; Astronomical Observation; Writing

## Referee

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**Prof. Toktam Mahmoodi:** Department of Engineering, Faculty of Natural, Mathematical & Engineering Sciences, King's College London, London, WC2R 2LS, UK. Email: [toktam.mahmoodi@kcl.ac.uk](mailto:toktam.mahmoodi@kcl.ac.uk)

**Prof. Zhiguo Ding:** School of Electrical and Electronic Engineering, The University of Manchester, Manchester, M13 9PL, UK. Email: [zhiguo.ding@manchester.ac.uk](mailto:zhiguo.ding@manchester.ac.uk)

**Prof. Mohammed El-Hajjar:** School of Electronics and Computer Science, Faculty of Engineering and Physical Sciences, University of Southampton, Southampton, SO17 1BJ, UK. Email: [meh@ecs.soton.ac.uk](mailto:meh@ecs.soton.ac.uk)