

# 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: Prof. Zhiguo Ding (FIEEE) <a href="#">🔗</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 <ul style="list-style-type: none"><li>• Research on the optimization process edge computing in the cell-free and massive MIMO networks.</li></ul>	London, UK Nov. 2024 – Now
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## 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>[J3] Energy-Efficiency Maximization in Backscatter Communication Based Non-Orthogonal Multiple Access System: Dinkelbach and Successive Convex Approximation Approaches</b> <i>Dingjia Lin</i> , Tianqi Wang, Kaidi Wang, Zhiguo Ding <i>in IET Signal Processing</i> , 2024, 4107801, 12 pages <a href="https://doi.org/10.1049/2024/4107801">doi: 10.1049/2024/4107801</a> <a href="#">🔗</a>	Aug 2024
<b>[C1] Uplink Data Rate Maximization with Channel Uncertainties in BackCom NOMA System</b> <i>Dingjia Lin</i> , Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding <i>2024 International Symposium on Wireless Communication Systems (ISWCS)</i> , Rio de Janeiro, Brazil, 2024, pp. 1-6 <a href="https://doi.org/10.1109/ISWCS61526.2024.10639114">doi: 10.1109/ISWCS61526.2024.10639114</a> <a href="#">🔗</a>	Jul 2024
<b>[J2] Uplink Data Rate Maximization in Multi-Cell BackCom NOMA Systems</b> <i>Dingjia Lin</i> , Kaidi Wang, Tianqi Wang, Zhiguo Ding <i>in IEEE Open Journal of the Communications Society</i> , vol. 5, pp. 526-539, 2024 <a href="https://doi.org/10.1109/OJCOMS.2023.3349277">doi: 10.1109/OJCOMS.2023.3349277</a> <a href="#">🔗</a>	Jan 2024

### [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] EE Maximization with Imperfect CSI at Transmitter in BackCom NOMA System

Submitted

**Dingjia Lin**, Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding

in *IEEE Transactions on Vehicular Technology*

### [P2] Power Minimization in FAS Assisted NOMA Networks

in Preparation

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

### [P3] 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. 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)