ming.sun@kaust.edu.sa https://mingsun-kaust.github.io

Ming Sun

EDUCATION

King Abdullah University of Science and Technology (KAUST)

Saudi Arabia

Ph.D. in Electrical and Computer Engineering

2022 - 2027 (expected)

- Advisor: Prof. Wolfgang Heidrich
- Research area: Computational microscopy

Harbin Institute of Technology (HIT)

China

M.Eng. in Instrument Science and Technology

2020 - 2022

- Rank: 1/133.
- Advisor: Prof. Zhen-gang Lu
- Research area: Defect detection

China

Harbin Institute of Technology (HIT)

B.Eng. in Opto-Electronics Information Science and Engineering

2016 - 2020

- Rank: 1/45.
- Advisor: Prof. Zhengjun Liu
- Research area: Fourier ptychography

Research Interests

Computational imaging; Microscopy system; End-to-End learning; Phase retrieval

Journal Publications

- 1. **M. Sun**, K. Wang, Y. N. Mishra, S. Qiu, W. Heidrich. Space-time Fourier Ptychography for in vivo Quantitative Phase Imaging. *Optica*, 2024. [Link]
- 2. H. Qin, M. Sun, Z. Lu, J. Tan. Metallic Mesh Defect Detection Based on Low-Rank Decomposition via Schatten Capped p Norm. *IEEE Trans. Instrum. Meas.*, 2024. [Link]
- 3. Y. Li, X. Wen, M. Sun, X. Zhou, Y. Ji, G. Huang, K. Zhou, S. Liu, Z. Liu. Spectrum sampling optimization for quantitative phase imaging based on Kramers-Kronig relations. *Opt. Lett.*, 2022. [Link]
- 4. Y. Li, C. Shen, J. Tan, X. Wen, M. Sun, G. Huang, S. Liu, Z. Liu. Fast quantitative phase imaging based on Kramers-Kronig relations in space domain. *Opt. Express*, 2021. [Link]
- 5. M. Sun, Y. Li, G. Huang, J. Wang, J. Tan, S. Liu, B. Gao, Z. Liu. Self-adapting search algorithm for Fourier ptychographic microscopy. *Opt. Quantum Electron.*, 2021. [Link]

Conference Publications

1. M. Sun, K. Wang, Y. N. Mishra, S. Qiu, W. Heidrich. Space-time Fourier Ptychography for in vivo Quantitative Phase Imaging. *Computational Optical Sensing and Imaging* (COSI), 2024. [Link]

Awards and Honors

- Best poster shortlist & Spotlight poster (ICCP 2024) 2024.07
- KAUST PhD Program Fellowship 2022.08
- Kwang-Hua Scholarship 2021.11
- First-class Academic Scholarship 2020.09, 2021.09
- Excellent Graduate of Harbin Institute of Technology 2020.06
- National Scholarship 2018.11
- First-class People's Scholarship 2018.05, 2018.11, 2020.06

Programming: Matlab, Python, Pytorch, C.

SKILLS

Computer design software: Adobe Illustrate

Computer design software: Adobe Illustrator, Blender, 3ds Max, Solidworks.

Reviewers for: Optics Express

Academic Services

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