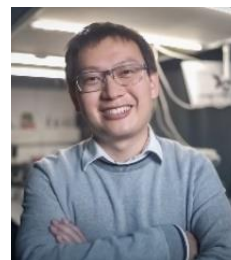


Curriculum vitae

Dr Haoran Ren

School of Physics and Astronomy, Monash University

Email: haoran.ren@monash.edu. Webpage: <https://rengroupnano.com/>



RESEARCH MOTIVATION

Our nanophotonics research exploits the full potential (multi-dimensions) of light and its enabled light-matter interactions at nanoscale, creating new nanotechnology platforms for impactful applications.

CAREER HISTORY

- 2022 – ARC DECRA Fellow (Lecturer) at Monash University.
The group research focuses on the development of integrated meta-optic systems for advanced light shaping, classic and quantum imaging processing, optical sensing, and nonlinear photonics.
- 2020 – 2022 MQ Research Fellow at Macquarie University (mentor: Prof. Judith Dawes).
2019 – 2020 Humboldt Research Fellow at LMU Munich (advisor: Prof. Stefan Maier).
2016 – 2018 Postdoctoral Fellow at RMIT University (advisor: Prof. Min Gu).

ACADEMIC QUALIFICATIONS

- February 2017 PhD, Centre for Micro-Photonics, Swinburne University of Technology.
Supervisor: Prof. Min Gu. Thesis title: “Nanophotonic manipulation of angular momentum of light for information optics”
- July 2012 Master of Science, Ocean University of China.
July 2010 Bachelor of Science, Ocean University of China.

COMPETITIVE RESEARCH FUNDING AND FELLOWSHIPS

- 2022 Monash Uplift grant (Lead Chief Investigator, \$20k)
2022 Macquarie Acceleration Scheme (co-Chief Investigator, >\$50k).
2022 ARC DP (Lead Chief Investigator, >\$350k).
2022/2020 MQ Research Infrastructure Schemes (co-Chief Investigator, >\$400k).
2022 ARC DECRA (Chief Investigator, >\$400k).
2021 Macquarie University Research Fellowship (Chief Investigator, >\$350k).
2020 Centre for NanoScience seed funding at LMU Munich (co-Chief Investigator, >\$20k).
2019 Humboldt Research Fellowship (Chief Investigator, >\$200k).

AWARDS AND RESEARCH HIGHLIGHTS

- 2022 [Emerging Leaders 2022 – Journal of Optics](#).
2022 [ANZOS Geoff Opat Early Career Researcher Prize](#).
2022 [MQ Research Spotlight](#).
2018 [World Technology Awards – Winner of Communications Technology](#).
2017 [Victoria Fellowship](#).
2016 [Chinese Government Prize for Outstanding Self-financed Students Abroad](#) (Special Prize).
2015 [OSA Robert S. Hilbert Student Travel Grant](#).

SPECIAL RECOGNITIONS

- 2022-2023 Associated Investigator, The ARC TMOS Centre of Excellence.
2021-2022, Secretary at The OPTICA (formerly OSA) Sydney Local Section.
2022-2027 Honorary Research Fellow, Macquarie University.

PROFESSIONAL ENGAGEMENT

EDITORIAL

- 2022- *APL Photonics* Early Career Editorial Advisory Board.
2021 Guest Editor, special issue on “Advances in Metasurfaces for Photonic Devices” in *Frontiers in Nanotechnology*.

CONFERENCE/WORKSHOP ORGANISING COMMITTEE

- 2023 Optica Advanced Photonics Congress (subcommittee in novel materials).
2022 Panelist in iCANX Talks.
2022 Workshop on 3D Printing of Photonics Materials (AIP Conference).
2022 The OPTICA (formerly OSA) Latin America Optics and Photonics Conference.
2021 WILEY Photonics & Advanced Intelligent Systems International Conference.
2021 The OPTICA (formerly OSA) Sydney Local Section Seminars.
2021/2022 MQ Photonics Seminars.
2021 ANZCOP Conference.
2018 The CUDOS Workshop on Frontiers in Nanoplasmonics.
2017 The Selby Public Lecture at RMIT University.

REGULAR REVIEW

Reviewer for the ARC Grants, MQ ECR Enabling Scheme.

Reviewer for top tier international journals including *Nature*, *Science Advances*, *Nature Photonics*, *Nature Nanotechnology*, *Nature Communications*, *Nature Electronics*, *Light Science & Applications*, *Communications Physics*, *eLight*, *Optica*, *Optics Letters*, *Optics Express*, *Nano Letters*, *ACS Photonics*, *ACS Applied Nano Materials*, *APL Photonics* and *Nanophotonics*.

MEMBERSHIP

Member of OPTICA (formerly OSA), SPIE, Elected Secretary of the OPTICA Sydney Local Section (2021), Elected event officer in the executive committee of the OSA Photonics Metamaterials Technical Group (2020).

SUPERVISION AND MENTORING

- 2022 School of Mathematical and Physical Sciences, Macquarie University
Supervising a summer vocational scholarship holder on the topic of metasurface measuring structured light in turbulence.
2019-2022 Chair in Hybrid Nanosystems – Hybrid Nanophotonics & Plasmonic Chemistry
Co-supervising PhD, Master and visiting students on the topics of flat optics, holography and metafiber optics.
2017-2018 School of Science, RMIT University
Mentoring PhD students and visiting students on the topics of structured light and nanophotonic chips.

OUTREACH

- 2021 *Macquarie University ECR Showcase* – “Metafiber optics”.
2020 *Behind the paper* – “Twisted light for a metasurface holographic video display”, Nature Research Ecology & Evolution Community.
2020 *Podcasts* – “Holographische Videos: bald nicht mehr nur bei Star Wars”.

PATENTS

J. M. Dawes and H. Ren, “Orbital angular momentum multiplexer and demultiplexer”, AU2021902309 (2022).
M. Gu, Y. Cao, Z. Gan, X. Li, B. Mashford, H. Ren and Q. Zhang, “Media, systems and methods for optical data storage” PCT/CN2016/100832 (2016).

SCIENTIFIC OUTPUTS

35 peer reviewed journal publications with over **2500** citations ([Google Scholar](#)).

Top journal publications include: 4 Science and family journals, 11 Nature family journals.

Invited commentaries/perspectives:

- Aigner, J. Dawes, S. A. Maier, and H. Ren, “Nanophotonics shines light on hyperbolic metamaterials”, *Light: Sci. & Appl.* (2022).
- H. Ren, “A light-programmable metasurface”, *Nat. Electron.* (2020).

50 conference proceedings, **15** invited conference talks at major international conferences including SPIE, CLEO US, ANZCOP, META, PIERS, and AIP Conferences. More than **20** invited seminar talks at various universities including LMU Munich, University of Melbourne, UNSW, ANU and POSTECH.