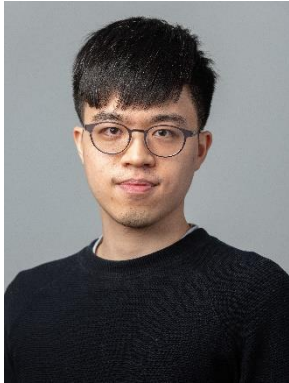


HAO-CHENG, WENG

Bristol, United Kingdom | Hsinchu, Taiwan | haocheng.weng@bristol.ac.uk



EDUCATION

- | | |
|---|------------------------|
| PhD in Physics and Quantum Engineering | 2022 – 2026 (expected) |
| - The QET Labs and the University of Bristol, Bristol, United Kingdom | |
| Master of Science in Physics | 2022 |
| - National Tsing Hua University, Hsinchu, Taiwan | |
| Bachelor of Science in Physics | 2019 |
| - National Tsing Hua University, Hsinchu, Taiwan | |

RESEARCH

PhD Research at QET Labs, University of Bristol

2022 – now

- Journal Publication (first-author):
 - Hao-Cheng Weng, John G. Rarity, Krishna C. Balram, and Joe A. Smith, *Crosstalk-Mitigated Microelectronic Control for Optically-Active Spins*, under review, [arXiv:2404.04075](https://arxiv.org/abs/2404.04075).
 - Hao-Cheng Weng, Jorge Monroy-Ruz, Jonathan C. F. Matthews, John G. Rarity, Krishna C. Balram, and Joe A. Smith, *Heterogeneous Integration of Solid-State Quantum Systems with a Foundry Photonics Platform*, [ACS Photonics 2023 10 \(9\), 3302-3309](https://doi.org/10.1364/PHOTONICS.2023.10.3302).
- Conference Publication (selected):
 - Weng, Hao-Cheng, et al., *Heterogeneous Integration of Solid-state Quantum Systems with Silicon Foundry Microelectronics*, [In CLEO: Science and Innovations \(pp. STh4R-2\). Optica Publishing Group 2024](https://doi.org/10.1364/CLEO.2024.STh4R-2).
 - Weng, Hao-Cheng, et al., *Nitrogen-Vacancy Centres Integrated with Foundry Silicon Nitride Photonics*, [2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference \(CLEO/Europe-EQEC\). IEEE, 2023](https://doi.org/10.1109/ECCE52922.2023.10398888).
- Patent:
 - Hao-Cheng Weng, Krishna C. Balram, and Joe A. Smith, *Crosstalk-Mitigated Microelectronic Control for Optically-Active Spins*, [UK patent application No. GB 2404816.7](https://www.patent.gov.uk/gov/ukpatent/24048167).

Master's Research at qplab, National Tsing Hua University

2020 – 2022

- Journal Publication (selected):
 - Huan-Yu Ku, Hao-Cheng Weng, Yen-An Shih, Po-Chen Kuo, Neill Lambert, Franco Nori, Chih-Sung Chuu, and Yueh-Nan Chen, *Hidden Nonmacrorealism: Reviving the Leggett-Garg Inequality with Stochastic Operations*, [Phys. Rev. Research 3, 043083 \(2021\)](https://doi.org/10.1103/PhysRevResearch.3.043083).
 - Hao-Cheng Weng and Chih-Sung Chuu, *Implementation of Shor's algorithm with a single photon in 32 dimensions*, [Physical Review Applied 22.3 \(2024\): 034003](https://doi.org/10.1103/PhysRevApplied.22.034003). [Press coverage](#).

- Conference Publication (selected):

1. Hao-Cheng Weng, Chen-Yeh Wei, Huan-Yu Ku, Shin-Liang Chen, Yueh-Nan Chen, and Chih-Sung Chuu, *Experimental Observation of Hierarchy in Temporal Quantum Correlations*, [APS Division of Atomic, Molecular and Optical Physics Meeting Abstracts \(Vol. 2020, pp. D03-005\)](#).

PRIZES AND AWARDS

- 2024 M4QN Lab exchange award.
- Taiwan Ministry of Education Scholarship (2024-2026).
- 2024 Bristol Quantum Information Technologies Workshop Best Poster Prize: Crosstalk-Mitigated Microelectronic Control for Optically-Active Spins.
- 2023 Hon Hai Technology Award: awarded for pioneer research on heterogeneous integration of solid-state quantum systems with a foundry photonics platform, [link](#).
- University of Bristol Fully Funded PhD Studentship (2022-2026): awarded for researching large scale spin-photon integrated circuit for quantum information applications.
- 2022 Postgraduates Student Thesis Award, Physical Society of Taiwan: Hierarchy and Revival of Temporal Quantum Correlations.