

# He Entong July 26, 2003

entong\_he@conncet.hku.hk • +852 6582 3909 / +86 188 2316 1675  
The University of Hong Kong • Pokfulam, Hong Kong SAR • China

## Experience

- The University of Hong Kong

Pokfulam, Hong Kong SAR, China
- Mitacs Globalink Research Internship - Supervisor: Prof. Anne Broadbent

2024/5/27 - 2024/8/20

Research focus: computational examples for Boolean constraint system algebras and non-local games. The project was co-supervised by Dr. Connor Paddock.
- HKU Summer Research Programme 2023 - Supervisor: Prof. Chenshu Wu

2023/5/29 - 2023/8/10

Focused on sensing techniques with quantum metrology and the sensor localization model it introduces. The project was co-supervised by Prof. Yuxiang Yang
- Student Teaching Assistant - Supervisor: Prof. Takwing Chim / Dr. Failung Tsang

2022-2023

Helped with (1) problem-solving session for COMP2113/ENGG1340 - Programming technologies, (2) conducting example classes for MATH1851/1853 - Introduction to calculus/linear algebra.
- Research Assistant - Supervisor: Prof. Daniel Zhuoyu, Long @ CUHK

2022/7/1 - 2022/9/1

Assisted the mathematical proof of theorems and programming in robust optimization. Promoted the proof of the submodularity property of revenue function defined by a variant of the HJB equation.

## Awards

- HKU Presidential PhD Scholarship (2025 intake) - Conditional Offer

Hong Kong SAR, China
- HKU SRP 2023 Research Scholarship

Hong Kong SAR, China
- C.V. Starr Scholarship

Hong Kong SAR, China
- 2021-2022, 2022-2023 Dean's Honour List Award - HKU Faculty of Engineering

Hong Kong SAR, China
- 36<sup>th</sup> & 37<sup>th</sup> Chinese Physics Olympiad - Second Prize

Guangdong, China

## Publications

- Topics in Non-local Games: Synchronous Algebras, Algebraic Graph Identities, and Quantum NP-hardness Reductions

Entong He

Preprint. Research conducted as a Mitacs visiting research student at the uOttawa QUASAR group.  
arXiv link: <https://arxiv.org/pdf/2408.10114>
- QuERLoc: Towards Next-Generation Localization with Quantum-Enhanced Ranging

Entong He, Yuxiang Yang, Chenshu Wu

Preprint, under review for INFOCOM 2025.  
arXiv link: <https://arxiv.org/pdf/2404.16895>
- Quantum Ranging Enhanced TDoA Localization

Entong He, Yuxiang Yang, Chenshu Wu\*

In proceedings of 2024 IEEE International Conference on Acoustics, Speech and Signal Processing.  
doi: 10.1109/ICASSP48485.2024.10446684

## Service

Reviewer for 2025 IEEE International Conference on Acoustics, Speech and Signal Processing.

## Education

- The University of Hong Kong

Pokfulam, Hong Kong SAR, China
- Bachelor of engineering in computer science (in progress).

2021 - present

Major GPA: 4.05/4.3 (WES 3.88/4) || Cumulative GPA: 3.85/4.3 (WES 3.81/4) - top 15.
- National University of Singapore

Singapore
- Exchange student @ NUS School of Computing.

2024 Jan-May

Courses: quantum computing, stochastic operations research, game theory, Bayesian statistics.  
Semester GPA: 4.75/5
- Shenzhen Senior High School

Shenzhen, Guangdong, China
- 2021 NJCEE participant (Subjects: Physics, Chemistry, Biology).

2018 Sep - 2021 Jun

## Skills

- Technical specialties:

(1) **Mathematical Skills:** calculus, linear algebra, measure theory-based probability, design and analysis of algorithms. (2) **Programming Skills:** C, C++, Python, Mathematica.
- Natural languages:

Mandarin (native); English (IELTS: 7.5; TOEFL: 107, 25 in speaking); Cantonese (fluent).