

# He Entong July 26, 2003

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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 - Advisor: 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-advised by Dr. Connor Paddock.
- HKU Summer Research Programme 2023 - Advisor: 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-advised 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 - Advisor: 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).