






# Cunxin Huang, PhD Candidate

✉ [huangcunxin@outlook.com](mailto:huangcunxin@outlook.com)    [OptHuang](https://github.com/OptHuang)  
 <https://orcid.org/0000-0001-7523-6980>  
 <https://opthuang.github.io>  
 [Google Scholar](#)



## Education

- 2022 – today    **PhD candidate, Department of Applied Mathematics, The Hong Kong Polytechnic University.**  
Applied Optimization and Optimal Control.  
Supervised by Dr. Zaikun Zhang and co-supervised by Prof. Xiaojun Chen.  
Supported under the Hong Kong PhD Fellowship Scheme (HKPFS).
- 2018 – 2022    **BSc, School of Mathematics, Jilin University.**  
Information and Computing Science (Computational Mathematics).

## Research Interests



-  **Derivative-Free Optimization (DFO)**
-  **Randomized Methods**

## Publications

### Journal Articles


- [1] **C. Huang**, H. Song, J. Yang, and B. Zhou. “Error Analysis of Finite Difference Scheme for American Option Pricing under Regime-Switching with Jumps”. In: *J. Comput. Appl. Math.* (2023). DOI: 10.1016/j.cam.2023.115484.
- [2] Z. Gao, **C. Huang**, H. Song, and B. Zhou. “Projection and Contraction Method for Pricing American Option under Regime-Switching Model”. In: *Journal of Jilin University (Science Edition)* 60 (2022), pp. 1090–1096.

## Presentations

- 2024    **The 25th International Symposium on Mathematical Programming**
- Montréal, Canada.
  - Minisymposium: Derivative-free and Simulation-based Optimization.
  - Non-convergence of Probabilistic Direct Search
  - Invited-session talk.
-  **The 2nd Derivative-Free Optimization Symposium**
- Padova, Italy.
  - Non-convergence of Probabilistic Direct Search
  - Invited-session talk.


## Presentations (continued)

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- 2023     **The 9th Graduate Forum of The Mathematical Programming Branch of ORSC**
- Chongqing, China.
- Non-convergence of Probabilistic Direct Search
- Contributed talk (Outstanding Presentation Award).

## Teaching

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- 2024     **The Hong Kong Polytechnic University**
- Operations Research Methods
- Tutorials (20 hours).
  - Bachelor level.