

Cunxin Huang, PhD Student

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Education

- 2022 – today 📖 **PhD student, 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.

Research Interests

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

Publications

- 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). Accepted for publication.
- 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.

Honors


Fellowships

- 2022 📖 **Hong Kong PhD Fellowship Scheme (HKPFS)**, supported by Research Grants Committee (RGC) of Hong Kong, ref. PF21-56718.
- 2020, 2021 📖 **First Class Scholarship**, awarded by Jilin University.
- 2020 📖 **Zhao-Yue Scholarship**, awarded by School of Mathematics, Jilin University.
- 2019 📖 **National Scholarship**, awarded by Ministry of Education, China.

Competition Awards





- 2021 📖 **Finalist Award of Mathematical Contest in Modeling**, awarded by Society for Industrial and Applied Mathematics (SIAM).

Honors (continued)




- 2020  **First Prize of National College Students Mathematical Competition**, awarded by Chinese Mathematical Society (CMS).

Miscellaneous Experience




Student Affairs

- 2021 – 2022  **Academic Mentor for Freshmen**, School of Mathematics, Jilin University.
Guiding and monitoring the study of freshmen in School of Mathematics.
- 2020 – 2021  **President of Student Union**, School of Mathematics, Jilin University.
Coordinating all departments of student union and organizing various activities.
-  **Teaching Assistant**, School of Mathematics, Jilin University.
Conducting seminars on Mathematical Analysis and Advanced Linear Algebra for freshmen in School of Mathematics.
- 2019 – 2021  **Assistant Counselor**, School of Mathematics, Jilin University.
Giving freshmen useful guidance on study and life.

Extra-Curricular Activities

- 2021  **Interdisciplinary Training Program**, Jilin University.
Research on efficient numerical methods to solve put option pricing under regime-switching model.
- 2020  **Academic Exchange Program**, Cambridge & Jilin University.
Two-week online courses, awarded “Best Group Leader”.
- 2019  **Poverty Alleviation Research**, Si-Yuan Program.
Two-week field research on: development of the wine industry for poverty alleviation in Hongsipu, and analysis of its future opportunities and challenges.

Skills

- Languages  Native speaker for Mandarin, and level B2 for English.
- Coding  Python, C, MATLAB, Git, \LaTeX .
- Misc.  Basketball, table tennis, calligraphy.