

Xingguang (Ray) JIN

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Education

- 2022.07 – 2026.07 (Expect) 📖 **The Chinese University of Hong Kong, Hong Kong**
Ph.D. in Computational Mathematics.
Supervisor: *Prof. Eric Chung*.
Visting Oxford Machine Learning × Finance Summer School
- 2019.07 – 2021.07 📖 **The Chinese University of Hong Kong, Hong Kong**
M.Sc. in Computational Mathematics.
Dean's List.
Exchange at School of Economics, Fudan University, China.
- 2014.07 – 2018.07 📖 **Chongqing Normal University, China**
B.Sc. in Mathematics.
Excellent Graduate.
Summer school at Imperial College London, UK.

Research Interests

Numerical Analysis, Scientific Computing, Deep Learning, Uncertainty Quantification

Employment History

- 2024 – Now 📖 **President**, SIAM CUHK Student Chapter, The Chinese University of Hong Kong.
- 2022 – Now 📖 **Teaching Assistant**, Mathematics Department, The Chinese University of Hong Kong.
- 2021 – 2022 📖 **Research Assistant**, Mathematics Department, Hong Kong Baptist University.
Supervisor: *Prof. Andrew Lam*.

Research Publications


Work in progress

- 1 **X. G. Jin**, C. Q. Ye, and E. T. Chung, "*multiscale methods for wave propagation in materials with sign-changing coefficients*", 2024.

Journal Articles

- 1 **X. G. Jin**, L. Liu, X. Zhong, and E. T. Chung, "Efficient numerical method for the schrödinger equation with high-contrast potentials," *submitted to SIAM Multiscale modeling & Simulation*, 2025.
- 2 **X. G. Jin**, K. F. Lam, and C. Q. Ye, "Numerical analysis of a FE/SAV scheme for a caginalp phase field model with mechanical effects in stereolithography," *accepted in Interfaces and Free Boundaries*, 2024.
- 3 **X. G. Jin**, C. Q. Ye, and E. T. Chung, "Robust Multiscale Methods for Helmholtz equations in high contrast heterogeneous media," *submitted to Computers and Mathematics with Applications*, 2024.
- 4 C. Q. Ye, **X. G. Jin**, P. Ciarlet, and E. T. Chung, "Multiscale modeling for a class of high-contrast heterogeneous sign-changing problems," *submitted to Numerische Mathematik*, 2024.








Conference Proceedings

- 1 W. jiahao, **X. G. Jin**, W. Yuan, Z. Luo, and Z. Yu, "Deep neural network for melanoma classification in dermoscopic images," in *2021 IEEE International Conference on Consumer Electronics and Computer Engineering (ICCECE)*, 2021, pp. 666–669.  DOI: 10.1109/ICCECE51280.2021.9342158.

Conferences & Workshops

- Speaker  Applied Mathematics Freshman Seminar, Nov 2-4, 2024, Kyoto University, Kyoto, Japan.
 Hong Kong-Taiwan Joint Conference on Applied Mathematics and Related Topics, May 23-25, 2024, Chung Cheng University, Chiayi, Taiwan.
- Organizer  CUHK SIAM Student Annual Workshop, March 23, 2024, CUHK, Hong Kong.
- Helper  International Workshop on Multiscale Model Reduction and Scientific Machine Learning, Dec 4-6, 2023, CUHK, Hong Kong.
 HKSIAM Biennial Conference, August 28 - September 1, 2023, CUHK, Hong Kong.
- Participant  Oxford Machine Learning & Finance Summer School, July, 2022, Oxford, UK.

Teaching




- CUHK Master Level  2024 Fall MMAT 5320. Computational Mathematics. Tutor/Grader.
 2022 Fall MMAT5270. Introduction to inverse problems. Tutor/Grader.
- CUHK Bachelor Level  2025 Spring MATH3240. Numerical Methods for Differential Equations. Tutor/Grader
 2024 Summer SAYT 1034. Complex Numbers and Analytic Geometry. Tutor/Grader.
 2024 Spring MATH3240. Numerical Methods for Differential Equations. Tutor/Grader.
 2023 Fall MATH2040A. Linear Algebra. Grader.
 2023 Spring MATH3290. Mathematical Modeling. Tutor/Grader.

Skills





- Languages  English, Mandarin, Cantonese, Japanese.
Coding  Python, Matlab, \LaTeX .

Miscellaneous Experience

Awards and Achievements

- 2022–2026  **Postgraduate Studentship**, The Chinese University of Hong Kong.
2021  **Department Scholarship for Outstanding Msc. Student**, The Chinese University of Hong Kong.
2018  **National Scholarship**, China Education ministry.

Services

- 2024  **President**: CUHK SIAM Student Chapter.
 **Vice President**: CUHK Postgraduate Association.
- 2023  **Treasurer**: CUHK SIAM Student Chapter.
- 2022  **Membership**: CUHK SIAM Student Chapter Treasurer, HKSIAM.