Curriculum Vitae of Yuxin Fan

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Department of Mathematics
The Chinese University of Hong Kong
Hong Kong SAR, China

ACADEMIC BACKGROUND

PhD Student in Mathematics   since 09/2023
The Chinese University of Hong Kong
Advisor: Prof. Bangti Jin
Expected completion: June 2027

BSc (Hons) in Economics   09/2019–06/2023
School of Economics, Shanghai University of Finance and Economics, China
Graduated with **Highest Honors**, ranking **1st** in the Honors Experimental Program (1/12)
and **3rd** overall among Economics majors (3/187).

RESEARCH INTERESTS

Inverse problems for partial differential equations, Bayesian nonparametric statistics, uncertainty
quantification.

PUBLICATIONS / PREPRINTS

Y. Fan, J. Hong, and B. Jin.
*Solving inverse acoustic obstacle scattering problem from phaseless far-field measurements using
deep neural network surrogates.*
Inverse Problems **41** (2025), no. 9, 095011. Journal PDF

Y. Fan and B. Jin.
On the contraction rate of the posterior distribution for nonlinear PDE parameter identification.
Submitted to *SIAM/ASA Journal on Uncertainty Quantification.* arxiv:2601.17805

ACADEMIC ACTIVITIES

Summer Schools

Graduate Summer School in Pure Mathematics   July–August 2022
Soochow University, Jiangsu, China
Successfully completed and passed graduate-level courses in *Algebra*, *Topology*, and *Real Analysis*,
with final examinations.

Workshop on High Performance Computing   July 2023
Tianyuan Mathematical Center in Central China, Wuhan, China
Topics included the *minimax rate in machine learning.*

Conferences

The Second HKSIAM Biennial Conference   Aug. 28 – Sep. 1, 2023

The Chinese University of Hong Kong, Hong Kong SAR.

The Third HKSIAM Biennial Conference   July. 7 – July. 11, 2025
The Chinese University of Hong Kong, Hong Kong SAR.

UPCOMING TALKS

Contributed Talk, 10th Pacific Rim Conference on Mathematics   June 2026
Institute of Mathematics, Academia Sinica, Taipei, Taiwan.

TEACHING EXPERIENCE

Teaching Assistant
The Chinese University of Hong Kong (for Mathematics majors)
Undergraduate (Year 1): *University Mathematics.*
Undergraduate (Year 3): *Numerical Methods for Differential Equations.*
Master's level: *Econometric Principles and Data Analysis.*

Shanghai University of Finance and Economics
Undergraduate (Year 3): *Scientific Computations* (for Data Science majors).
Undergraduate (Year 3): *Corporate Finance* (for Finance majors).

SELECTED AWARDS

National Scholarship, Ministry of Education of China   2020–2021, 2021–2022
Awarded to top undergraduate students nationwide based on academic excellence.

First Prize, Chinese Mathematics Competitions for College Students (Shanghai Division)   2022, 2023
Provincial-level first prize in a nationwide mathematics competition.

Outstanding Graduate of Shanghai Municipality   2023
Awarded by the Shanghai Municipal Government to outstanding graduating students for academic excellence and overall achievement.