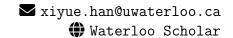
# Xiyue Han

• M3 4134, 200 University Ave W, Waterloo, Ontario, N2L 3G1



#### ACADEMIC APPOINTMENTS

Postdoctoral Fellow	University of Waterloo
Supervisors: Alexander Schied and Ruodu Wang	October 2024 - September 2025

### **EDUCATION**

•	Ph.D. in Quantitative Finance and Actuarial Science Supervisor: Alexander Schied	University of Waterloo May 2019 - August 2024
•	MMath in Actuarial Science Supervisor: Alexander Schied	University of Waterloo September 2017 - January 2019

B.Sc. in Actuarial Science
University of Hong Kong
Advisor: Jae Kyung Woo
September 2013 - May 2017

#### Research Interests

Financial Mathematics and Applied Probability

## PREPRINTS

- Han, X. & Schied, A. Estimating the roughness exponent of stochastic volatility from discrete observations of the realized variance. arXiv: 2307.02582.
- Han, X. & Schied, A. On laws absolutely continuous with respect to fractional Brownian motion. arXiv: 2306.11824.
- Han, X. & Schied, A. Robust Faber–Schauder approximation based on discrete observations of an antiderivative. arXiv: 2211.11907.
- Han, X. & Schied, A. The roughness exponent and its model-free estimation. arXiv: 2111.10301.

## **PUBLICATIONS**

- Han, X. & Schied, A. (2022) Step roots of Littlewood polynomials and the extrema of functions in the Takagi class. *Mathematical Proceedings of the Cambridge Philosophical Society*, 173, 591-618.
- Han, X., Schied, A. & Zhang, Z. (2022) A limit theorem for Bernoulli convolutions and the Φ-variation of functions in the Takagi class. *Journal of Theoretical Probability*, 35, 2853–2878.
- Han, X., Schied, A. & Zhang, Z. (2022) A probabilistic approach to the Φ-variation of classical fractal functions with critical roughness. Statistics & Probability Letters, 168, 108920.
- Han, X. (2021) A Gladyshev theorem for trifractional Brownian motion and n-th order fractional Brownian motion. Electronic Communications in Probability, 26, 1-12.

#### Professional Certification

#### Society of Actuaries

P, FM, LTAM, STAM, IFM, SRM, PA and VEE exams

#### VOLUNTARY SERVICE

#### Co-chair of SAS Student Seminar Series

## Awards

Student Research Presentation Award, Statistical Society of Canada Thesis Completion Award, University of Waterloo James C. Hickman Scholar, Society of Actuaries Sprott Scholarship, University of Waterloo Teaching Assistant Award, University of Waterloo Senate Graduate Scholarship, University of Waterloo International Doctoral Student Award, University of Waterloo Best Presentation Award in Waterloo Student Conference, University International Master Student Award, University of Waterloo Statistics and Actuarial Science Chair Award, University of Waterloo	2024 2023 2022 - 2023 2022 2022 2022 2019 - 2023 of Waterloo 2019 2017 - 2018 2017 - 2023
Presentations	
Estimating the roughness exponent of stochastic volatility $Financial\ Mathematics\ Seminar$	University of Michigan February 2024
The roughness exponent and its application in finance $Departmental\ Seminar$ Indian	a University Indianapolis February 2024
Estimating the roughness exponent of stochastic volatility $Departmental\ Seminar$	New York University  January 2024
Estimating the roughness exponent of stochastic volatility $Departmental\ Seminar$	Imperial College London  January 2024
Estimating the roughness exponent of stochastic volatility  The 4th Waterloo Student Conference in Statistics, Actuarial Science and Finance	University of Waterloo October 2023
The roughness exponent and its model-free estimation  The 3rd Waterloo Student Conference in Statistics, Actuarial Science and Finance	University of Waterloo October 2022
The roughness exponent and its model-free estimation  AARMS CRG Conference on Computational Aspects in Finance and Actuarial Sci	Online July 2022
The roughness exponent and its model-free estimation  The 11th World Congress of the Bachelier Finance Society	Online June 2022
The roughness exponent and its model-free estimation  The 56th Actuarial Research Conference	Online  August 2021
The roughness exponent and its model-free estimation  The 24th International Congress on Insurance: Mathematics and Economics	Online July 2021
• Extrema of functions in the Takagi class  The 1st Waterloo Student Conference in Statistics, Actuarial Science and Finance	University of Waterloo October 2020

# EXPERIENCE AS INSTRUCTOR

# ACTSC 432: Credibility and Risk Theory

Spring 2024

## EXPERIENCE AS TEACHING ASSISTANT

STAT 901: Theory of Probability I	Fall 2022
ACTSC 363: Casualty and Health Insurance Mathematics I	$Spring \ 2022$
ACTSC 446: Mathematics of Financial Markets	Winter 2021
ACTSC 432: Credibility and Risk Theory	Spring 2021
STAT 330: Mathematical Statistics	Fall 2020
ACTSC 446: Mathematics of Financial Markets	Fall 2020
ACTSC 432: Credibility and Risk Theory	Spring 2020
ACTSC 431: Casualty and Health Insurance II	Spring 2020
STAT 333: Applied Probability	Spring 2019
STAT 330: Mathematical Statistics	Spring 2019
STAT 221: Introductory Statistics	Winter 2018
ACTSC 231: Introductory Financial Mathematics	Winter 2018
STAT 221: Introductory Statistics	Fall 2017
ACTSC 231: Introductory Financial Mathematics	Fall 2017
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This CV is current as of November 5, 2024.