Qiuqi Wang

Department of Statistics and Actuarial Science
University of Waterloo
Mathematics 3, 200 University Avenue West
Waterloo, Ontario, Canada N2L 3G1

Email: q428wang@uwaterloo.ca
Tel: +1 (226) 388-0900
Office: M3 Room 4233
Website: https://qwangan.github.io/

Education

Ph.D. Candidate in Actuarial Science, University of Waterloo — 09/2019 – present

- Supervisor: Ruodu Wang

M.Phil. Mathematics, Hong Kong University of Science and Technology — 07/2019

- Thesis: *"Real Option Signaling Games under Asymmetric Information and Finite Option Life"*
- Supervisor: Yue Kuen Kwok
- GPA: 4.00/4.30

B.S. Mathematics and Economics, Hong Kong University of Science and Technology — 07/2017

- Minor: Information Technology
- GPA: 3.61/4.30 (First Class Honor)

International Exchange Student, Technical University of Munich — 04/2016 – 09/2016

Research Interests

Actuarial Science; Quantitative Risk Management; Operations Research; Financial Engineering; Game Theory

Publications and Manuscripts

[1] **Wang, Q.**, Wang, R. and Ziegel, J. (2022). E-backtesting. *arXiv*: `https://arxiv.org/abs/2209.00991`.

[2] Han, X., **Wang, Q.**, Wang, R. and Xia, J. (2021). Cash-subadditive risk measures without quasi-convexity. *arXiv*: `https://arxiv.org/abs/2110.12198#`.

[3] Pesenti, S., **Wang, Q.** and Wang, R. (2020). Optimizing distortion riskmetrics with distributional uncertainty. Major revision at *Operations Research*. *arXiv*: `https://arxiv.org/abs/2011.04889`.

[4] **Wang, Q.**, Wang, R. and Zitikis, R. (2022). Risk measures induced by efficient insurance contracts. *Insurance: Mathematics and Economics*, **103**, 56–65.

[5] Embrechts, P., Mao, T., **Wang, Q.** and Wang, R. (2021). Bayes risk, elicitability, and the Expected Shortfall. *Mathematical Finance*, **31**(4), 1190–1217.

[6] **Wang, Q.**, Wang, R. and Wei, Y. (2020). Distortion riskmetrics on general spaces. *ASTIN Bulletin*, **50**(4), 827–851.

[7] **Wang, Q.** and Kwok, Y.K. (2020). Real option signaling games of debt financing using equity guarantee swaps. *International Journal of Theoretical and Applied Finance*, **23**(5), 2050036.

[8] **Wang, Q.** and Kwok, Y.K. (2019). Signaling game models of equity financing under information asymmetry and finite project life. *International Journal of Financial Engineering*, **6**(1), 1950002.

Selected Honors and Awards

James C. Hickman Scholar Doctoral Stipend (out of 4 recipients), SOA	2021 – 2023
Honorable Mention in ARC Graduate Student Presentation Awards, SOA	2022
SAS Chair's Award, UW	2021 – 2022
Comprehensive Award (out of 2 recipients), UW	2020
International Doctoral Student Award, UW	2019 – 2021
Statistics and Actuarial Science Doctoral Entrance Award, UW	2019 – 2021
Postgraduate Studentship, HKUST	2017 – 2019
Scholarship Scheme for Continuing Undergraduate Students, HKUST	2015 – 2017
Fong Shu Chuen Scholarship, HKUST	2015 – 2016
School of Science Dean's List, HKUST	2014

Conferences Organized

- 3rd Waterloo Student Conference in Statistics, Actuarial Science and Finance (Co-chair), 2022 (Waterloo, Canada)
- 2nd Waterloo Student Conference in Statistics, Actuarial Science and Finance (Co-chair), 2021 (Online)

Invited Academic Presentations

- INFORMS Annual Meeting, 2022 (Indianapolis, US)
- Real Options Seminar, Osaka University, 2021 (Online)
- SIAM Conference on Financial Mathematics and Engineering, 2021 (Online)

Contributed Academic Presentations

- 57th Actuarial Research Conference, 2022 (Urbana-Champaign, US)
- 25th International Congress on Insurance: Mathematics and Economics, 2021 (Online)
- CORS/INFORMS International Conference, 2022 (Vancouver, Canada)
- 56th Actuarial Research Conference, 2021 (Online)
- 24th International Congress on Insurance: Mathematics and Economics, 2021 (Online)
- 5th PKU-NUS Annual International Conference on Quantitative Finance and Economics, 2021 (Online)
- 5th Asian Quantitative Finance Seminar, 2020 (Online)
- 1st Waterloo Student Conference in Statistics, Actuarial Science and Finance, 2019 (Waterloo, Canada)
- 23rd Annual International Real Options Conference, 2019 (London, UK)

Teaching Experience

- Instructor, University of Waterloo

ACTSC 371 - Introduction to Investment	Winter 2023

- Teaching Assistant, University of Waterloo

ACTSC 363 - Casualty and Health Insurance Mathematics 1	Fall 2022
ACTSC 964 - Quantitative Risk Management	Spring 2022
ACTSC 446/846 - Mathematics of Financial Markets	Winter 2022
ACTSC 431 - Casualty and Health Insurnce Mathematics 2	Spring 2021
MATBUS 472 - Risk Management	Winter 2021 – 2022
ACTSC 431 - Loss Model I	Spring 2020
ACTSC 445/845 - Quantitative Enterprise Risk Management	Spring 2020
ACTSC 231 - Introductory Financial Mathematics	Winter 2020
MATBUS 471 - Fixed Income Securities	Fall 2019 – 2021, Winter 2020
MATBUS 470 - Derivatives	Fall 2019 – 2022, Winter 2021

- Teaching Assistant, Hong Kong University of Science and Technology

MATH 4321 - Game Theory	Spring 2018 – 2019
MATH 4511 - Quantitative Methods for Fixed Income Derivatives	Fall 2018

Peer-review Service

- Actuarial science journal(s): *ASTIN Bulletin, Insurance: Mathematics and Economics, Annals of Actuarial Science*
- Mathematical finance journal(s): *Quantitative Finance*
- Probability journal(s): *Statistics & Probability Letters*

Other Skills

Languages: Mandarin (native), English (fluent, TOEFL iBT: 108), Cantonese (conversational), German (elementary)

Programming: R, MATLAB, C++, HTML, Python, Stata, Excel VBA, MS Office

SOA exams passed: VEE Accounting & Finance, VEE Applied Statistics, VEE Economics, Exam P, Exam FM, Exam IFM, Exam SRM, Exam PA, Exam STAM, Exam LTAM

SOA exam in progress: FAP (final assessment completed, grade expected to be released in Nov 2022)