

Qiuqi Wang

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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
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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. (2021). 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	<i>2021 – 2023</i>
SAS Chair's Award, UW	<i>2021 – 2022</i>
Comprehensive Award (out of 2 recipients), UW	<i>2020</i>
International Doctoral Student Award, UW	<i>2019 – 2021</i>
Statistics and Actuarial Science Doctoral Entrance Award, UW	<i>2019 – 2021</i>
Postgraduate Studentship, HKUST	<i>2017 – 2019</i>
Scholarship Scheme for Continuing Undergraduate Students, HKUST	<i>2015 – 2017</i>
Fong Shu Chuen Scholarship, HKUST	<i>2015 – 2016</i>
School of Science Dean's List, HKUST	<i>2014</i>

Conferences Organized

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

Invited Academic Presentations

- 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 Experiences

- Instructor, University of Waterloo

ACTSC 371 - Introduction to Investment

expected Winter 2022

- 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 Insurance 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

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 (passed and waiting for credit transfer), 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)
