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*

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. Preprint. *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. Submitted. *arXiv*: `https://arxiv.org/abs/2110.12198#`.

[3] Pesenti, S., **Wang, Q.** and Wang, R. (2021). Optimizing distortion riskmetrics with distributional uncertainty. Submitted. *arXiv*: `https://arxiv.org/abs/2011.04889`.

[4] **Wang, Q.**, Wang, R. and Zitikis, R. (2021). 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*
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

- 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, CA)
- 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, CA)
- 23rd Annual International Real Options Conference, 2019 (London, UK)

Teaching Experiences

- 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*

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 (completed 8 modules and taking final assessment in Sept 2022)
