Qiuqi Wang, Ph.D., A.S.A.

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Academic Appointment

Georgia State University — 08/2023 – present
– Assistant Professor, Maurice R. Greenberg School of Risk Science

Education

Ph.D. Actuarial Science, University of Waterloo — 06/2023
– Advisor: Ruodu Wang

M.Phil. Mathematics, Hong Kong University of Science and Technology — 07/2019
– Advisor: Yue Kuen Kwok

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

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

Professional Designation

Associate of the Society of Actuaries (A.S.A.) — 08/2023

Research Interests

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

Publications and Manuscripts

Pre-publication manuscripts

[1] Bellini, F., Huang, M., **Wang, Q.** and Wang, R. (2025). Lambda Expected Shortfall. Preprint.

[2] Jiao, Z., **Wang, Q.** and Zhao, Y. (2025). Standard and comparative e-backtests for general risk measures. Preprint.

[3] Chi, Y., Fung, T. C., Peng, L. and **Wang, Q.** (2025). Statistical solutions of optimal multivariate reinsurance under distortion risk measures. Preprint.

Peer-reviewed journal articles

[1] **Wang, Q.**, Wang, R. and Ziegel, J. (2025). E-backtesting. *Management Science*, available online.

[2] Han, X., **Wang, Q.**, Wang, R. and Xia, J. (2021). Cash-subadditive risk measures without quasi-convexity. *Mathematics of Operations Research*, available online.

[3] Boonen, T. J., Chen, Y., Han, X. and **Wang, Q.** (2024). Optimal insurance design with Lambda-Value-at-Risk. *European Journal of Operational Research*, **327**(1), 232–246.

[4] Aboagye, E., Asimit, V., Fung, T. C., Peng, L. and **Wang, Q.** (2024). A revisit of the optimal excess-of-loss contract. *European Journal of Operational Research*, **322**(1), 341–354.

[5] Pesenti, S., **Wang, Q.** and Wang, R. (2024). Optimizing distortion riskmetrics with distributional uncertainty. *Mathematical Programming*, **213**, 51–106.

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

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

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

[9] **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.

[10] **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.

Dissertations

[1] Wang, Q. (2023). Characterizing, optimizing and backtesting metrics of risk. *Ph.D. Thesis.* University of Waterloo, Canada.

[2] Wang, Q. (2019). Real option signaling games under asymmetric information and finite option life. *M.Phil. Thesis.* Hong Kong University of Science and Technology, Hong Kong.

Selected Honors and Awards

3rd place of Mathematics Doctoral Prize, UW	2024
Statistical Society of Canada's Pierre Robillard Award, SSC	2024
An award with one recipient per year recognizing the best Ph.D. thesis defended at a Canadian university in a given year in the fields of probability or statistics	
James C. Hickman Scholar Doctoral Stipend, SOA	2021 – 2023
An award with annually 3-5 recipients currently enrolled in or applying to actuarial science doctoral programs or a related field, in the U.S. or Canada, recognizing great academic performance and potential	
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 – 2023
Statistics and Actuarial Science Doctoral Entrance Award, UW	2019
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

Academic Visits

University of Waterloo (Department of Statistics and Actuarial Science)	2023, 2025
Nankai University (School of Mathematical Sciences)	2023, 2025
Chinese University of Hong Kong-Shenzhen (School of Science and Engineering)	2024
Chinese Academy of Sciences (Academy of Math and Systems Science)	2021, 2023
University of Science and Technology of China (School of Management)	2021

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

- China Conference on Insurance and Risk Management, 2025 (Urumqi, China)
- 3rd Foundations and Applications of Decentralized Risk-Sharing, 2025 (Paris, France)
- Young Talents in Actuarial Science and Quantitative Finance Conference, 2025 (Waterloo, Canada)

- Pierre Robillard Invited Address, Statistical Society of Canada Annual Meeting, 2024 (St. John's, Canada)
- Young Data Science Researcher Seminar Zurich, 2022 (Online)
- 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

- 1st ASTIN Bulletin Conference, 2026 (Zurich, Switzerland)
- 60th Actuarial Research Conference, 2025 (Toronto, Canada)
- 59th Actuarial Research Conference, 2024 (Murfreesboro, US)
- 27th International Congress of Insurance: Mathematics and Economics, 2024 (Chicago, US)
- 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

- Courses at Georgia State University

RMI 8300 - Predictive Risk Modeling — Fall 2024, 2025

AS 3230/8230 - Financial Mathematics — Spring 2024, Fall 2024, 2025

- 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*, *North American Actuarial Journal*
- Mathematical finance journal(s): *Quantitative Finance*, *Mathematical Finance*, *Finance & Stochastics*
- Operations research journal(s): *Mathematics of Operations Research*
- Economics journal(s): *Economic Modelling*
- Probability journal(s): *Statistics & Probability Letters*

Last updated: Jan 2026