Liyuan LIN

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Updated by 01/02/2025

Employment

- Senior Lecturer, Monash University
  Aug. 2024 - Present

Academic Appointment

- Ph.D, University of Waterloo (UW)
  Sep. 2020 - Oct. 2024
    - Major: Actuarial Science
    - Supervisor: Ruodu Wang and Alexander Schied
- Master degree in Economics, Central University of Finance and Economics (CUFE)
  Sep. 2017 - Jun. 2020
    - Major: Actuarial Science
    - Supervisor: Jingzhen Liu
- Bachelor in Economics, Central University of Finance and Economics
  Sep. 2013 - Jun. 2017
    - Major: Actuarial Science
    - Supervisor: Jingzhen Liu

Research Interests

- *Actuarial Science*
- *Dependence and Risk Aggregation*
- *Quantitative Risk Management*

Manuscripts and Publications

[1] Han, X., **Lin, L.** and Zhao, M. (2025). Empirical estimator of diversification quotient. *arXiv*: 2506.20385.

[2] Lauzier, J., **Lin, L.**, Wakker, P. and Wang, R. (2025). Optimal risk sharing, equilibria, and welfare with empirically realistic risk attitudes. *arXiv*:2401.03328.

[3] Han, X., **Lin, L.**, Hao Wang and Wang, R. (2025). Diversification quotient based on expectiles. *arXiv*: 2411.14646.

[4] Lauzier, J., **Lin, L.** and Wang, R. (2025). Risk sharing, measuring variability, and distortion riskmetrics. *Mathematical Finance*, https://doi.org/10.1111/mafi.70007.

[5] **Lin, L.**, Wang, R., Zhang, R. and Zhao, C. (2025). The checkerboard copula and dependence concepts. *SIAM Journal on Financial Mathematics*, **16**(2), 426-447.

[6] Han, X., **Lin, L.** and Wang, R. (2024). Diversification quotients: quantifying diversification via risk measures. *Management Science*, https://doi.org/10.1287/mnsc.2023.00513.

[7] Koike, T., **Lin, L.** and Wang, R. (2024). Invariant correlation under marginal transforms. *Journal of Multivariate Analysis*, **204**, 105361.

[8] **Lin, L.**, Liu, F., Liu, J. and Yu, L. (2024). The optimal reinsurance strategy with price-competition between two reinsurers. *Scandinavian Actuarial Journal*, **2024**(8), 1-28.

[9] Koike, T., **Lin, L.** and Wang, R. (2024). Joint mixability and negative orthant dependence. *Mathematics of Operations Research*, **49**(4), 2786-2802.

[10] Assa, H., **Lin, L.** and Wang, R. (2024). Calibrating distribution models from PELVE. *North American Actuarial Journal*, **28**(2), 373-406.

[11] Lauzier, J., **Lin, L.** and Wang, R. (2023). Pairwise counter-monotonicity. *Insurance: Mathematics and Economics*, **111**, 279–287.

[12] Han, X., **Lin, L.** and Wang, R. (2023). Diversification quotients based on VaR and ES. *Insurance: Mathematics and Economics*, **113**, 185–197.

[13] Yu, L., **Lin, L**, Guan, G. and Liu, J. (2023). Time-consistent lifetime portfolio selection under smooth ambiguity. *Mathematical Control and Related Fields*, **13**(3), 967–987.

[14] Chen, Y., **Lin, L.** and Wang, R. (2021). Risk aggregation under dependence uncertainty and an order constraint. *Insurance: Mathematics and Economics*, **102**, 169–187.

[15] Liu, J., Yan, S. and **Lin L.** (2020). Optimal asset allocation for households with habit formation. Submitted. (In Chinese).

[16] Liu, J., **Lin, L.**, Yiu, K.F.C. and Wei, J. (2020). Non-exponential discounting portfolio management with habit formation. *Mathematical Control and Related Fields*, **10**(4), 761–783.

[17] Liu, J., **Lin, L.** and Meng, H. (2020). Optimal consumption, life insurance and investment decision with habit formation. *Acta Mathematicae Applicatae Sinica (Chinese Series)*, **43**(3), 517–534.

[18] Liu, J. and **Lin, L.** (2018). Impact of weather on the pricing of flight delay insurance. *Insurance Theory and Practice*, **2018**(11), 100–110.

Conferences Organized

- 2024 Australasian Actuarial Education and Research Symposium (Volunteer), 2024 (Caulfield, VIC, Australia)
- 3rd Waterloo Student Conference in Statistics, Actuarial Science and Finance (Volunteer), 2022 (Waterloo, Canada)
- 2nd Waterloo Student Conference in Statistics, Actuarial Science and Finance (Volunteer), 2021 (Online)

Conferences

[1] 1st ASTIN Bulletin Conference, Zurich, Switzerland, January 14-16, 2026.

[2] 2025 Australasian Actuarial Education and Research Symposium, Sydney, Australia, December 1-2, 2025.

[3] The 3rd Conference on Theory and Application of Actuarial Science, Tianjing, China, October 31-November 3, 2025.

[4] 15th Annual China Conference on Insurance and Risk Management, Xinjiang, China, July 9-12, 2025.

[5] The Third International Conference on Actuarial Science, Quantitative Finance, and Risk Management, Beijing, China, July 6-8, 2025 (Invited).

[6] FADeRiS 2025, Paris, France, June 4-5, 2025 (Invited).

[7] 2025 SSC Annual Meeting, Online, Saskatoon, Canada, May 25-28, 2025 (Invited).

[8] 27th International Congress on Insurance: Mathematics and Economics, Chicago, United States, July 8-11, 2024.

[9] FADeRiS 2024, Ulm, Germany, May 27-29, 2024.

[10] BIRS: Optimal Transport and Distributional Robustness workshop, Banff, Canada, March 24-29, 2024.

[11] 26th International Congress on Insurance: Mathematics and Economics, Edinburgh, United Kingdom, July 4-7, 2023.

[12] SIAM Conference on Financial Mathematics and Engineering (FM23), Philadelphia, Pennsylvania, United States, June 6-9, 2023 (Invited).

[13] 2022 INFORMS Annual Meeting, Indianapolis, United States, October 16-9, 2022 (Invited).

[14] 3rd Waterloo Student Conference in Statistics, Actuarial Science and Finance, Waterloo, Canada, October 14-15, 2022.

[15] 57th Actuarial Research Conference, Urbana-Champaign, United States, August 3-6, 2022.

[16] 25th International Congress on Insurance: Mathematics and Economics, Online, July 12-15, 2022.

[17] 2022 CORS/INFORMS International Conference, Vancouver, Canada, June 5-8, 2022.

[18] SSC 2022 Annual Meeting, Online, May 30-June 3, 2022.

[19] 2nd Waterloo Student Conference in Statistics, Actuarial Science and Finance, Online, Nov 5-6, 2021.

[20] The 7th FINACT-IRAN National Conference on Financial and Actuarial Mathematics, Online, Aug 10-12, 2021.

[21] 23rd International Congress on Insurance: Mathematics and Economics, Munich, Germany, Jul 10-12, 2019.

[22] 2019 China Actuarial Theory and Application Conference, Shanghai, China, May 18-19, 2019.

[23] The 8th Annual Conference of Financial Engineering and Financial Risk Management Branch of OR Society of China, Xian, China, Aug 25-26, 2018.

Grant

Monash Business Schools Dean's List	2025-2026
Monash ECA Research Grant	2025-2026

Selected Scholarships & Awards

Canada's Pierre Robillard Award	2025
Graduate Research Excellence Award, UW	2024
Senate Graduate Scholarship Sprott Award, UW	2023
James C. Hickman Scholar Doctoral Stipend, Society of Actuaries (SOA)	2022-2023
ARC Graduate Student Presentation Award	2022
Statistics & Actuarial Science Chair's Award, UW	2021-2023
Actuarial Science Doctor Entrance Award, UW	2020
Excellent MA thesis, CUFE	2020
Outstanding Graduate, CUFE	2020
First-Class Scholarship, CUFE	2018-2019
Sir Edward Johnston prize, Institute and Faculty of Actuaries (IFOA)	2018

Teaching experience

- Instructor at Monash University

ETC3420/5342 - Applied Insurance Methods	S2 2025-2026
ETC2430 - Actuarial cash flow modelling	S1 2025-2026

- Instructor at UW

STAT 230 - Probability	Fall 2023

Peer-review Service

- Actuarial science journal(s): European Actuarial Journal, Insurance: Mathematics and Economics, ASTIN Bulletin

- Mathematical Finance journal(s): Mathematical Finance

- Probability journal(s): Statistics and Probability Letters, Bernoulli, Dependence Modelling

Other Skills

- Language skills: Mandarin (Native); English (Fluent, IELTS 7)
- Professional skills
    - A.S.A. (Associate of the Society of Actuaries)
    - A.I.A. (Associate of the Institute of Actuaries)
    - Associate of China Association of Actuaries
- Programming: Matlab, R, C++, Python, HTML, Excel VBA, MS Office