Liyuan LIN

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Education Experiences

- PhD Candidate, University of Waterloo
  Jun. 2024 expected
  - 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
  - Overall GPA: 3.946/4.5 (2/21)
- Bachelor in Economics, Central University of Finance and Economics (CUFE)
  Sep. 2013 - Jun. 2017
  - Major: Actuarial Science
  - Supervisor: Jingzhen Liu
  - Overall GPA: 3.94/4.50 (5/44)

Research Interests

- *Dependence and Risk Aggregation*
- *Risk Measures*

Main Research results

[1] Lauzier, J., **Lin, L.** and Wang, R. (2023). Pairwise counter-monotonicity. *arXiv*:2302.11701.

[2] Lauzier, J., **Lin, L.** and Wang, R. (2023). Risk sharing, measuring variability, and distortion riskmetrics. *arXiv*:2302.04034.

[3] Xia, H., **Lin, L.** and Wang, R. (2022). Diversification quotients based on VaR and ES. *arXiv*: 2301.03517.

[4] Xia, H., **Lin, L.** and Wang, R. (2022). Diversification quotients: quantifying diversification via risk measures. *arXiv*: 2206.13679.

[5] Koike, T., **Lin, L.** and Wang, R. (2022). Joint mixability and negative orthant dependence. *arXiv*: 2204.11438.

[6] Assa, H., **Lin, L.** and Wang, R. (2022). Calibrating distribution models from PELVE. *arXiv*: 2204.08882.

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

[8] **Lin, L.**, Liu, F., Liu, J. and Yu, L. (2020). The optimal reinsurance strategy with price-competition between two reinsurers. Submitted.

[9] Yu, L., **Lin, L**, Guan, G. and Liu, J. (2022). Time-consistent lifetime portfolio selection under smooth ambiguity. Mathematical Control and Related Fields, doi:10.3934/mcrf.2022023.

[10] 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.

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

[12] 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. (In Chinese).

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

Conferences

[1] Diversification Quotients: Quantifying Diversification via Risk Measures, 2022 INFORMS Annual Meeting, Indianapolis, United States, October 16-9, 2022.

[2] Diversification Quotients: Quantifying Diversification via Risk Measures, 3rd Waterloo Student Conference in Statistics, Actuarial Science and Finance, Waterloo, Canada, October 14-15, 2022.

[3] Diversification Quotients: Quantifying Diversification via Risk Measures, 57th Actuarial Research Conference, Urbana-Champaign, United States, August 3-6, 2022.

[4] Calibrating distribution models from PELVE, 25th International Congress on Insurance: Mathematics and Economics, Online, July 12-15, 2022.

[5] Measuring diversification via risk measures, 2022 CORS/INFORMS International Conference, Vancouver, Canada, June 5-8, 2022.

[6] Calibrating distribution models from PELVE, SSC 2022 Annual Meeting, Online, May 30-June 3, 2022.

[7] Risk aggregation under dependence uncertainty and an order constraint, 2nd Waterloo Student Conference in Statistics, Actuarial Science and Finance, Online, Nov 5-6, 2021.

[8] On VaR-ES distortion and its application in risk management, The 7th FINACT-IRAN National Conference on Financial and Actuarial Mathematics, Online, Aug 10-12, 2021.

[9] Non-exponential discounting portfolio management with habit formation, 23rd International Congress on Insurance: Mathematics and Economics, Munich, Germany, Jul 10-12, 2019.

[10] Time-consistent lifetime portfolio selection under smooth ambiguity, 2019 China Actuarial Theory and Application Conference, Shanghai, China, May 18-19, 2019.

[11] Optimal Consumption, Life insurance and Investment Decision with Habit formation, The 8th Annual Conference of Financial Engineering and Financial Risk Management Branch of OR Society of China, Xian, China, Aug 25-26, 2018.

Research Experience

- 2019.10.1-2020.6.17
  International visiting graduate student in Statistics and Actuarial Science in University of Waterloo.

- 2019.7.23-2019.9.15
  Researcher Assistant in the Department of Applied Mathematics in The Hong Kong Polytechnic University.
- 2018.7.23-2018.8.22
  Researcher Assistant in the Department of Applied Mathematics in The Hong Kong Polytechnic University.

Scholarships & Awards

- 2022.4 The SOA James C. Hickman Scholar Doctoral Stipend
- 2021.7/2022.2/2022.8 Statistics & Actuarial Science Chair's Award
- 2020.9 Statistics & Actuarial Science Doctor Entrance Award
- 2020.12 Excellent MA thesis in CUFE
- 2020.6 Outstanding Graduate in Beijing
- 2019.11&2018.11 First-Class Scholarship of CUFE
- 2018.6 Excellent Standing in the "Munich Re Cup"
- 2018.5 Sunshine Insurance Group Actuarial Scholarship
- 2018.3 Sir EJ prize from IFOA

Teaching experience

- Teaching Assistant at UW
  - ACTSC 232 (Winter 2023) - Life Contingencies I
  - ACTSC 363 (Fall 2022) - Casualty and Health Insurance Mathematics 1
  - STAT 230 (Spring 2022) - Probability
  - ACTSC 446/846 (Winter 2022, Fall 2022) - Mathematics of Financial Markets
  - ACTSC 331 (Winter 2022) - Life Contingencies 2
  - ACTSC 431 (Fall 2021) - Casualty and Health Insurance Mathematics 2
  - ACTSC 445 (Fall 2021) - Quantitative Enterprise Risk Management
  - ACTSC 445 (Spring 2021) - Quantitative Enterprise Risk Management
  - ACTSC 371 (Spring 2021, Winter 2023) - Introduction to Investment
- Teaching Assistant at CUFE
  - Mathematics for Life Contingency (Bilingual) - IFOA certification course

Other Skills

- Language skills
  - Chinese: mother tongue
  - English: IELTS 7 (Reading 8.5, Listening 7.5, Writing 6, Speaking 6)
- Professional skills
  - Associate member of China Association of Actuaries
  - Pursuing Associateship of IFOA (Passed CS1, CS2, CM1, CM2, CB1-CB3, CP1-CP3, Stage 1 Professionalism Course)

- Pursuing Associateship of SOA (Passed P, FM, FAM, PA, SRM, VEE Economics, VEE Mathematical Statistics)
- Computer skills
  - Matlab, R