FENGYI YUAN

CONTACT INFORMATION

Address:	Department of Mathematics
	University of Michigan
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EDUCATION

Tsinghua University — August 2019 ∼ June 2024
Ph.D. in Mathematics
Supervisor: Prof. Zongxia Liang, Tsinghua University

Tsinghua University — August 2015 ∼ July 2019
B.Sc. in Mathematics & Applied Mathematics
B.Sc. in Economics (a Secondary Degree)

EMPLOYMENT

University of Michigan, Ann Arbor — Aug 2024∼ June 2025
Byrne Research Assistant Professor
Mentor: Prof. Erhan Bayraktar, University of Michigan, Ann Arbor.

The Hong Kong Polytechnic University — July 2023 ∼ January 2024
Research Assistant
Mentor: Prof. Xiang Yu, The Hong Kong Polytechnic University

PUBLICATIONS AND WORKING PAPERS

All authors are sorted in alphabetical order:

- Lin He, Zongxia Liang and **Fengyi Yuan**. Optimal DB-PAYGO pension management towards a habitual contribution rate. ***Insurance Mathematics and Economics***, 94(3): 2020, pages 125-141.

- Zongxia Liang and **Fengyi Yuan**. Weak equilibria for time-inconsistent control: with applications to investment-withdrawal decisions. ***Mathematical Finance***, 33(3): 2023, pages 891-945.

- Zongxia Liang, Xiaodong Luo and **Fengyi Yuan**. Consumption-investment decisions with endogenous reference point and drawdown constraint. ***Mathematics and Financial Economics***, 17: 2023, pages 285-334.

- Guohui Guan, Qitao Huang, Zongxia Liang, and **Fengyi Yuan**. Retirement decision with addictive habit persistence in a jump diffusion market. Preprint, https://arxiv.org/abs/2011.10166. ***SIAM Journal on Financial Mathematics***, forthcoming.

- Zongxia Liang, Xiaodong Luo and **Fengyi Yuan**. Equilibria for time-inconsistent singular control problems. ***SIAM Journal on Control and Optimization***, 12(6):2024, pages 3213-3238..

- Xiang Yu and **Fengyi Yuan**. Time-inconsistent mean-field stopping problems: A regularized equilibrium approach. Preprint, https://arxiv.org/abs/2311.00381. ***Finance and Stochastics***, forthcoming.

- Zongxia Liang, Jianming Xia and **Fengyi Yuan**. Dynamic portfolio selection for nonlinear law-dependent preferences. Preprint, https://arxiv.org/abs/2311.06745.

- Zongxia Liang, Sheng Wang, Jianming Xia and **Fengyi Yuan**. Dynamic portfolio selection under generalized disappointment aversion. Preprint, https://arxiv.org/abs/2401.08323. ***Mathematics of Operations Research***, forthcoming.

- Bahman Angoshtari, Xiang Yu and **Fengyi Yuan**. Optimal consumption under loss-averse multiplicative habit-formation preferences. Preprint, https://arxiv.org/abs/2406.20063.

- Xiaoli Wei, Xiang Yu and **Fengyi Yuan**. Unified continuous-time q-learning for mean-field game and mean-field control problems. Preprint, https://arxiv.org/abs/2407.04521.

- Ahmad Aghapour, Erhan Bayraktar and **Fengyi Yuan**. Solving dynamic portfolio selection problems via score-based diffusion models. Preprint, https://arxiv.org/abs/2507.09916.

ACADEMIC PRESENTATIONS

- **The 10th Risk Management and Actuarial Forum**,
  Renmin University of China, Beijing, China, November 2019.

- **The 6th Asian Quantitative Finance Seminar**,
  National University of Singapore, Online, January 2021.

- **The 6th PKU-NUS Annual International Conference on Quantitative Finance and Economics**,
  Peking University & National University of Singapore, Online, May 2022.

- **The Mathematical Finance Series Seminars**,
  Peking University, Online, October 27th, 2022.

- **Financial/Actuarial Mathematics Seminar**,
  University of Michigan, Online, November 29th, 2023.

- **2023 Global Young Scholars' Forum**,
  The Chinese University of Hong Kong (Shenzhen), Online, December 8th, 2023.

- **Financial/Actuarial Mathematics Seminar**
  University of Michigan, Ann Arbor, September 4th, 2024.

- **Financial Mathematics Seminar**
  BIMSA, Online, May 22nd, 2025.

- **SIAM Conference on Financial Mathematics and Engineering**
  Miami, July 18th, 2025.

EXPERIENCES

- **Student Affairs Assistant of DMS, THU**, 2019∼2021.

- **Teaching Assistant for:** Functional Analysis (Fall 2020), Stochastic Analysis (Fall 2021), Probability Theory (Spring 2022).

- **Academic Assistant of Xingjian Colleage, THU**, Spring 2021.

AWARDS

- **Outstanding Doctoral Thesis** (top 10%). Tsinghua University, 2024.

- **Outstanding Graduates** (top 4%). Tsinghua University, 2024.

- **National Scholarship for Graduate Students**. Ministry of Education, China, 2020& 2023.

- **Mr. TANG Lixin Scholarship**. Tsinghua University, 2021.
- **THU Postgraduate Excellency Scholarship Second Price**. Tsinghua University, 2022.
- **THU Excellent TA Awards**. Tsinghua University, 2021&2022.