Jingjie Zhang

Contact Information

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Research Interests

Mathematical finance, stochastic control, optimization, applied probability, machine learning, data science.

Education

University of Michigan, Ann Arbor, Michigan, USA
Ph.D., Applied and Interdisciplinary Mathematics, *Expected:* Summer 2021.
- Co-advisors: Prof. Erhan Bayraktar (Mathematics), Prof. Indrajit Mitra (Finance).

University of Science and Technology of China, Hefei, Anhui, P.R.China
B.S., School of the Gifted Young, Mathematics and Applied Mathematics, June 2016.

Publications and Preprints

- *Time Consistent Stopping for the Mean-Standard Deviation Problem — the Discrete Time Case*, Erhan Bayraktar, Jingjie Zhang, and Zhou Zhou. **SIAM Journal on Financial Mathematics**, 10(3), 667-697, 2019. [SSRN] [Article].
- *Equilibrium concepts for time-inconsistent stopping problems in continuous time*, Erhan Bayraktar, Jingjie Zhang, and Zhou Zhou. **Mathematical Finance**, 2020; 1-23. [SSRN] [Article].
- *Time-varying Unemployment Benefits: A General Equilibrium Analysis*, Erhan Bayraktar, Indrajit Mitra, and Jingjie Zhang (Working paper).

Invited Talks

Optimal Stopping and Free Boundary Problems, University of Leeds, UK, January 15, 2020.
Mean Field Games and Related Topics, Levico Terme, Italy, September 10, 2019.
Financial/Actuarial Mathematics Seminar, University of Michigan, March 27, 2018.

Selected Awards

Rackham Conference Travel Grant Award, University of Michigan, 2020.
Graduate Departmental Scholarship, University of Michigan, 2017-2019.
Outstanding Undergraduate Thesis Award, University of Science and Technology of China, 2016.
Outstanding Student Scholarship, University of Science and Technology of China, 2012-2015.

Teaching Experience

Primary Instructor
◇ Calculus I (Math 115), Winter 2017, Winter 2019.
◇ Pre-Calculus (Math 105), Fall 2016.
Teaching Assistant
◇ Stochastic Analysis for Finance (Math 506), Winter 2021.
◇ Computational Finance (Math 623), Fall 2018, Fall 2020.
◇ Financial Mathematics II (Math 574), Winter 2018.
◇ Discrete State Stochastic Processes (Math 526/Stats 526), Fall 2017, Fall 2019.

Selected Graduate Coursework

◇ Computational Data Science and Machine Learning
◇ Continuous Optimization Methods
◇ Advanced Stochastic Analysis
◇ Analysis II(Real)
◇ Numerical Linear Algebra
◇ Introduction to PDE
GPA: 4.00/4.00

Work Experience

Manager intern - Credit & Fraud Risk at American Express, July 2020 - August 2020.

Skills

Programming: Matlab, Python, C, Mathematica, R, LaTeX, Julia.
Language: English (fluent), Mandarin (native).