Melih İşeri

Curriculum Vitae

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Work Experience

2023- Assistant Professor of Mathematics (non-tenure track), University of Michigan

Education

2017–2023 Ph.D., University of Southern California, Mathematics

- Advisor: Prof. Jianfeng Zhang

2012–2017 B.S., Bogazici University, Physics

- Advisor: Prof. Muhittin Mungan

Research Interests

Games, learning, geometric set valued analysis, stochastic controls, math finance

Publications

- 2025 M. İşeri, & E. Bayraktar. The Learning Approach to Games, arXiv:2503.00227
- 2023 M. İşeri, & J. Zhang. Set Valued HJB Equations, arXiv:2311.05727
- 2021 M. İşeri, & J. Zhang. **Set Values for Mean Field Games**, Transactions of the American Mathematical Society
- 2016 M. İşeri, D. Kaspar, & M. Mungan. **Depinning as a coagulation process.** Europhysics Letters, (designated Editor's Choice, appeared on Highlights of 2016)

Award

2022 USC Math Research Award Edward and Dolores Blum

Refereed for

- Numerical Algebra, Control and Optimization
- Stochastics and Dynamics
- Applied Mathematics and Optimization
- SIAM Journal on Financial Mathematics
- Stochastics

Presentations

- 2025 SIAM, Financial Mathematics and Engineering, Set Valued PDEs and Games
- 2025 **Temple University**, Set Valued PDEs and Games
- 2025 University of Michigan, Financial and Actuarial Mathematics, The Learning Approach to Games
- 2024 Rutgers University, Equilibrium Summer School, Set Valued HJB Equations
- 2024 SIAM Annual Meeting, Set Valued HJB Equations
- 2024 **The University of British Columbia**, New Trends and Challenges in Stochastic Differential Games Workshop, Set Valued HJB Equations
- 2023 Florida State University, Financial Mathematics Seminar, Set Values of Mean Field Games
- 2023 University of Michigan, Financial and Actuarial Mathematics, Set Valued HJB Equations
- 2023 Western Conference on Mathematical Finance, Set Valued HJB Equations
- 2023 Columbia University, Mathematical Finance Seminar Series, Set Valued HJB Equations
- 2022 University of Michigan, Financial and Actuarial Mathematics, Set Valued HJB Equations
- 2022 University of Southern California, Probability and Statistics Seminar, Set Valued HJB Equations
- 2022 **Bilkent University**, Fifth International Conference on Set Optimization with Applications to Economics, Finance, Statistics and Game Theory, Set Valued HJB Equations
- 2021 University of Southern California, Probability and Statistics Seminar, Set Values for Mean Field Games
- 2021 **Humboldt-Universität zu Berlin**, 6th Berlin Workshop for Young Researchers in Math Finance, Set Values for Mean Field Games
- 2021 SIAM, Conference on Financial Mathematics and Engineering, Set Values for Mean Field Games
- 2016 **Institute of Theoretical Physics**, 6th Warsaw School of Statistical Physics, *Depinning as a Coagulation Process*, Poster presentation
- 2015 APS Mirror Conference, Istanbul, Depinning and the Smoluchowski Equation
- 2014 **21th Statistical Physics Days**, Kayseri, Numerical Study of Avalanche Sizes in a Model Exhibiting Dynamic Criticality
- 2014 **APS** Mirror Conference, Istanbul, Study of Avalanche Sizes in a Model Exhibiting Dynamic Criticality

Computer Skills

Languages Python, LATEX, C, Matlab, Django

Python D. Kaspar and M. Işeri. kmtoy: Python package for 'Depinning as a coagulation process'.

Library (2016), DOI: 10.7301/Z0668B3H

GitHub github.com/melihiseri