Lin Fan

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Education

2017–2023 PhD in Management Science and Engineering, Stanford University.

(expected) • Concentration area: Operations Research

o Dissertation advisor: Peter W. Glynn

2014–2017 PhD Student in Mechanical Engineering, Stanford University.

o Incomplete degree; Advanced to candidacy in 2015

2017 MS in Statistics, Stanford University.

2015 **MS in Mechanical Engineering**, *Stanford University*.

2012 **BS in Mechanical Engineering**, Georgia Institute of Technology.

With Highest Honors; Minor in Biology

Employment

2023–2024 Amazon Postdoctoral Science Program, Amazon, New York.

Postdoctoral Scientist in Supply Chain Optimization Technologies (SCOT)

Starting 2024 Kellogg School of Management, Northwestern University.

- Assistant Professor in the Operations Department
- Donald P. Jacobs Scholar, 2024-2025

Research Interests

- o Broadly at the interface of data-driven operations research and machine learning
- Specializations in applied probability, sequential decision-making under uncertainty, statistical inference for stochastic processes, stochastic simulation
- Applications of interest include adaptive experimentation, inventory and service systems, economic time series, renewable energy and sustainability

Awards

- o 2nd place, George Nicholson Student Paper Competition, 2022
- Stanford Centennial Teaching Assistant Award, 2021
- Dantzig-Lieberman Operations Research Fellowship, 2019, 2021
- National Science Foundation Graduate Research Fellowship, 2013
- o Winner, 22nd Annual SAIC-Georgia Tech Student Paper Competition, 2011

Preprints/Under Review

Latest versions are accessible here: https://linfanf.github.io/research/

- 1. L. Fan, P.W. Glynn, The Fragility of Optimized Bandit Algorithms
 - o 2nd place, George Nicholson Student Paper Competition, 2022
- 2. L. Fan, P.W. Glynn, Diffusion Approximations for Thompson Sampling
- 3. L. Fan, P.W. Glynn, The Typical Behavior of Bandit Algorithms
- 4. L. Fan, P.W. Glynn, Nonparametric Estimation of Markov Chain Expectations
- 5. L. Fan, P.W. Glynn, M. Pelger, Change-Point Testing for Risk Measures in Time Series

Journal Publications

6. P.W. Glynn, L. Fan, M.C. Fu, J. Hu, Y. Peng, *Central Limit Theorems for Estimated Functions at Estimated Points*, Operations Research, 68, 2020

Selected Work in Progress

Approximations for Bernoulli Bandits, with W. Ba, P.W. Glynn, J.M. Harrison Subsample-based Estimation of Markov Chain Expectations, with P.W. Glynn Gradient Estimation for Stochastic Networks, with P.W. Glynn Efficient Parametric Estimation of Markov Chain Expectations, with P.W. Glynn

Earlier Journal Publications

- 7. J. Yen, D.W. Murphy, L. Fan, D.R. Webster, *Sensory-Motor Systems of Copepods involved in their Escape from Suction Feeding*, Integrative and Comparative Biology, 55, 2015
- 8. J. Wang, T.B. Kouznetsova, Z.S. Kean, L. Fan, B.D. Mar, T.J. Martinez, S.L. Craig, A Remote Stereochemical Lever Arm Effect in Polymer Mechanochemistry, Journal of the American Chemical Society, 136, 2014
- 9. L. Rosenfeld, L. Fan (<u>co-first author</u>), Y. Chen, S.K.Y. Tang, *Break-Up of Droplets in a Concentrated Emulsion Flowing Through a Narrow Constriction*, Soft Matter, 10, 2014
- 10. L. Fan, D. Potter, T. Sulchek, Constant Tip-Surface Distance with Atomic Force Microscopy via Quality Factor Feedback, Review of Scientific Instruments, 83, 2012

Conference Presentations

- 1. 2022 INFORMS Annual Meeting, The Fragility of Optimized Bandit Algorithms
- 2. 2020 INFORMS Annual Meeting, Nonparametric Estimation of Markov Chain Expectations
- 3. 2018 NBER-NSF Time Series Conference, Change-Point Testing and Estimation for Risk Measures in Time Series

Teaching Experience

Stochastic Modeling, MS&E 221

- O Core course for MS students; taught by Prof. Peter Glynn
- TA in Winter 2019, Spring 2021; Head TA in Spring 2022

Fundamentals of Data Science, MS&E 226

- Core course for MS students; taught by Prof. Ramesh Johari
- o Co-Head TA in Fall 2018, Fall 2019, Fall 2020

Stochastic Calculus and Control, MS&E 322

- PhD-level course; taught by Prof. Peter Glynn
- TA in Spring 2019, Winter 2023

Introduction to Stochastic Modeling, MS&E 121

- O Core course for undergraduate students; taught by Prof. Sam Chiu
- TA in Spring 2017

Introduction to Matrix Methods, CME/EE 103

- O Undergraduate-level course; taught by Prof. Stephen Boyd
- o TA in Fall 2016

Professional Service

Session Chair: 2023 INFORMS Annual Meeting, Applied Probability Society

Referee: Operations Research, Management Science, Mathematics of Operations Re-

search, Annals of Applied Probability, Journal of Econometrics

Other Work Experience

Summer 2010 2011

Summer Engineering Intern, National Renewable Energy Laboratory, Golden, CO.

- 2010, 2011 \circ Developed simulation tools for performance evaluation of large-scale wind farms
 - o Science Undergraduate Laboratory Internship Program, US Department of Energy