Conference on Frontiers in Machine Learning and Economics

FEDERAL RESERVE BANK PHILADELPHIA Center for Applied Artificial Intelligence

OCTOBER 18-19, 2024

Day 1: Friday, October 18

8:30 a.m.—9:00 a.m. Continental Breakfast

9:00 a.m.–10:30 a.m. Session 1: Macroeconomics

"Spooky Boundaries at a Distance: Turnpikes, Transversality, and Regularization"
 Mahdi Kahou (Bowdoin College) with Jesús Fernández-Villaverde (University of Pennsylvania), Sebastian Gomez-Cardona (Morningstar, Inc.), Jesse Perla (University of British Columbia), and Jan Rosa (University of British Columbia)
 Discussant: Lilia Maliar (City University of New York)

"Deep Learning for Search and Matching Models"
 Yucheng Yang (University of Zurich and Swiss Finance Institute) with Jonathan Payne (Princeton University) and Adam Rebei (Stanford University)
 Discussant: Pablo Guerron (Boston College)

10:45 a.m.–12:15 p.m. Session 2: Finance

"AlphaManager: A Data-Driven-Robust-Control Approach to Corporate Finance"
 Luofeng Zhou (New York University) with Murillo Campello (Cornell University) and Lin William Cong (Cornell University)
 Discussant: Zhigang Feng (University of Nebraska Omaha)

"Financial Statement Analysis with Large Language Models"
 Alex G. Kim (University of Chicago) with Maximilian Muhn (University of Chicago) and Valeri V. Nikolaev (University of Chicago)
 Discussant: Pierre Jinghong Liang (Carnegie Mellon University)

12:15 p.m.—1:45 p.m. Lunch at the Federal Reserve Bank of Philadelphia

1:45 p.m.–2:45 p.m. Keynote presentation

Sendhil Mullainathan (University of Chicago)

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3:15 p.m.–5:30 p.m. Session 3: Causal Inference

"Causal Effects on Text"

Jann Spiess (Stanford University) with Iman Modarressi (University of Cambridge) and Amar Venugopal (Stanford University)

Discussant: Amir Feder (Columbia University)

 "Using Contextual Embeddings to Predict the Effectiveness of Novel Heterogeneous Treatments"

James C. Reeder (University of Kansas) with Paul B. Ellickson (University of Rochester), Wreetabrata Kar (Purdue University), and Guang Zeng (University of Rochester) Discussant: Walter Zhang (University of Pennsylvania)

- "Words Matter: The Value of Collective Bargaining Agreements"

Benjamin Arnold (University of Cambridge) with Elliott Ash (ETH Zurich), W. Bentley

MacLeod (Princeton University), and Suresh Naidu (Columbia University)

Discussant: Aakash Kalyani (Federal Reserve Bank of St. Louis)

5:30 p.m.-7:00 p.m. Reception at the Federal Reserve Bank of Philadelphia

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Day 2: Saturday, October 19

8:30 a.m.—9:00 a.m. Continental Breakfast

9:00 a.m.-11:15 a.m. Session 4: Fairness

"Are Patent Examiners Gender Neutral?"
 Hadar Avivi (Princeton University)

Discussant: Tim Christensen (Yale University)

"Measuring Systemic Discrimination in High Dimensional Data"
 Aislinn Bohren (University of Pennsylvania) with Peter Hull (Brown University) and Alex Imas (University of Chicago)
 Discussant: Emily Black (Columbia University)

"Measuring Social Bias in Face Perception of a Vision-Language Model"
 Colin F. Camerer (California Institute of Technology) with Carina I. Hausladen (ETH Zurich), Manuel Knott (ETH Zurich), and Pietro Perona (California Institute of Technology)
 Discussant: Daniel Albohn (University of Chicago)

11:45 a.m.–12:45 p.m. Keynote presentation

Arvind Narayanan (Princeton University)

Lunch/Adjourn Boxed lunches available

Each contributed talk is assigned 45 minutes: 30 minutes for the presenter, 10 minutes for the discussant, and 5 minutes for discussion