Conference on Frontiers in Machine Learning and Economics: Methods and Applications

Day 1: Friday October 7th

8:30 to 09:00am Continental Breakfast

9:00 to 10:00am Keynote presentation:
"How to Make Causal Inferences with Text"
Margaret Roberts (University of California - San Diego)

10:30 to 12:45pm Session 1: Natural Language Processing

- *"On the testability of anchor words"*
  Simon Freyaldenhoven (Federal Reserve Bank of Philadelphia) with Jose Luis Montiel Olea (Cornell University)
  Discussant: audience
- *"Systematic Monetary Communication Rules"*
  Amy Handlan (Brown University) with Laura Gati (European Central Bank)
  Discussant: Taeyoung Doh (Federal Reserve Bank of Kansas City)
- *"The Fast and the Circuitous: Semantic Progression as a Type of Disclosure Complexity"*
  Nicholas Guest (Cornell University, Samuel Curtis Johnson Graduate School of Management) with Jiawen Yan (Cornell University, Samuel Curtis Johnson Graduate School of Management)
  Discussant: Stephen Brown (independent researcher)

Lunch at the Federal Reserve Bank of Philadelphia

2:00 to 3:00pm Keynote presentation:
"How Approximate Are Approximate Bayesian Computation Methods?"
Christian Robert (Université Paris-Dauphine and University of Warwick)

3:30 to 5:00pm Session 2: Model estimation

- *"Adversarial estimation of structural models"*
  Gauillaume Pouliot (University of Chicago) with Tetsuya Kaji (Booth School of Business) and Elena Manresa (New York University)
  Discussant: Zhenling Jiang (Wharton)
- *"Sequential Monte Carlo With Model Tempering"*
  Frank Schorfheide (University of Pennsylvania) with Marko Mlikota (University of Pennsylvania)
  Discussant: David Childers (Carnegie Mellon University)

5:00 to 6:30pm Reception at the Federal Reserve Bank of Philadelphia

The conference is co-sponsored by the Penn Institute for Economic Research and the Department of Economics of the University of Pennsylvania.

Day 2: Saturday October 8th

8:30 to 09:00am Continental Breakfast

9:00 to 10:30am Session 3: Computational methods

- *"Exploiting Symmetry in High-Dimensional Dynamic Programming"*
  Jesus Fernandez-Villaverde (University of Pennsylvania) with Mahdi Ebrahimi Kahou and Jesse Perla (both University of British Columbia) and Arnav Sood (Carnegie Mellon University)
  Discussant: Minsu Chang (Georgetown)
- *"DeepHAM: A Global Solution Method for Heterogeneous Agent Models with Aggregate Shocks"*
  Yucheng Yang (Princeton University) with Jiequn Han (Flatiron Institute and Princeton University) and Weinan E (Peking University and Princeton University)
  Discussant: Pablo Guerron (Boston College)

11:00 to 1:15am Session 4: Machine Learning in Economics

- *"Policy Choice in Time Series by Empirical Welfare Maximization"*
  Toru Kitagawa (Brown University) with Weining Wang (York University) and Mengshan Xu (University of Mannheim)
  Discussant: Karun Adusumilli (University of Pennsylvania)
- *"Structural Deep Learning in Conditional Asset Pricing"*
  Andreas Neuhierl (Washington University) with Jianqing Fan (Princeton University) Zheng Tracy Ke (Harvard University) and Yuan Liao (Rutgers University)
  Discussant: Winston Dou (Wharton)
- *"Causal Inference for Spatial Treatments"*
  Michael Pollmann (Duke University)
  Discussant: Christian Hansen (University of Chicago)

Lunch/Departure

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