

# Conference on Frontiers in Machine Learning and Economics

October 3-4, 2025  
Gleacher Center Room 100  
Chicago, IL

CHICAGO BOOTH  
THE UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS

Center for  
Applied Artificial  
Intelligence

FRB PHL

## DAY 1: FRIDAY, OCTOBER 3

9:00 - 10:00 AM

Continental Breakfast (outside of classroom)

10:00 - 11:30 AM

### Session 1: LLM Applications

*"AI Inventions and AI Talent Migrations: US and China"*

**Hanming Fang (University of Pennsylvania)**

with Xian Gu (Durham University), Hanyin Yan (Tsinghua University) and Wu Zhu (Tsinghua University)

Discussant: **Lee Fleming (University of California, Berkeley)**

*"A Century of Inflation Narratives"*

**Alexander K. Zentefis (Stanford University)**

with Mourad Heddaya (University of Chicago), ChenhaoTan (University of Chicago), Rob Voigt (Northwestern university) and Qingcheng Zeng (Northwestern University)

Discussant: **Leland Bybee (Booth School of Business)**

11:30 AM - 1:15 PM

Lunch

1:15 - 2:45 PM

### Session 2: Finance

*"Economic Representations"*

**Suproteem Sarkar (Chicago Booth)**

Discussant: **Bryan Routledge (CarnegieMellon University)**

*"Firm-Level Input Price Changes and Their Effects: A Deep Learning Approach"*

**Indrajit Mitra (Federal Reserve Bank of Atlanta)**

with Sudheer Chava (Georgia Institute of Technology), Wendi Du (University of South Carolina), Agam Shah (Georgia Institute of Technology) and Linghang Zeng (Babson College)

Discussant: **Bradford Levy (University of Chicago)**

2:45 - 3:30 PM	Break
3:30 - 5:00 PM	<p><b>Session 3: Pricing</b></p> <p><i>“The Rise of AI Pricing: Trends, Driving Forces, and Implications for Firm Performance”</i></p> <p><b>Min Fang (University of Florida)</b> with Jonathan Adams (Federal Reserve Bank of Kansas City), Zheng Liu (Federal Reserve Bank of San Francisco) and Yajie Wang (University of Missouri)</p> <p>Discussant: <b>Kevin Lee (Michigan)</b></p> <p><i>“Algorithmic Collusion of Pricing and Advertising on E-commerce Platforms”</i></p> <p><b>Ron Berman (University of Pennsylvania)</b> with Hangcheng Zhao (University of Pennsylvania)</p> <p>Discussant: <b>Ilya Morozov (Northwestern)</b></p>
6:00 - 8:00 PM	<p><b>Dinner and Keynote: Tamara Broderick (MIT)</b> <i>Room 621</i></p>

## DAY 2: SATURDAY, OCTOBER 4

8:30 - 9:30 AM	Continental Breakfast (outside of classroom)
9:30 - 11:45 AM	<p><b>Session 4: Methods</b></p> <p><i>“Double Descent in Time Series”</i></p> <p><b>Jesus Fernandez-Villaverde (University of Pennsylvania)</b> with Pablo A. Guerron Quintana (Boston College)</p> <p>Discussant: <b>Yuan Liao (University of Iowa)</b></p> <p><i>Anytime-Valid Inference for Double/Debiased Machine Learning of Causal Parameters”</i></p> <p><b>Abhinandan Dalal (University of Pennsylvania)</b> with Patrick Blöbaum (Amazon Web Services), Shiva Kasiviswanathan (AmazonWeb Services) and Aaditya Ramdas (Carnegie Mellon University)</p> <p>Discussant: <b>Rahul Singh (Harvard University)-</b></p> <p><i>“Pre-Training Estimators for Structural Models: Application to Consumer Search”</i></p> <p><b>Zhenling Jiang (University of Pennsylvania)</b> with Yanhao “Max”Wei (University of Southern California)</p> <p>Discussant: <b>Guillaume Pouliot (Rice University)</b></p>

11:45 AM - 12:00 PM	Break
12:00 - 1:00 PM	<b>Keynote: Dashun Wang (Northwestern)</b> <i>"AI and the Science of Science"</i>
1:00 - 2:00 PM	Lunch and Departure

## Conference Organizers



**Simon Freyaldenhoven**

**Federal Reserve Bank of Philadelphia** · Senior Machine Learning Economist



**Christian B. Hansen**

**The University of Chicago** · Wallace W. Booth Professor of Econometrics and Statistics, Booth School of Business



**Vitaly Meursault**

**Federal Reserve Bank of Philadelphia** · Senior Machine Learning Economist



**Sanjog Misra**

**The University of Chicago** · Charles H. Kellstadt Distinguished Service Professor of Marketing and Applied AI, Booth School of Business



**Minchul Shin**

**Federal Reserve Bank of Philadelphia** · Senior Economic Advisor and Machine Learning Economist