

March Meeting 2023 Featured Presentations

Work Trends, Finance and Economics

[Talk Reveals Counterintuitive Investor Behaviors in Prediction Markets](#)

March 6, 10 a.m. PST, Room 125

Investor behavior changes based on events like geopolitical conflicts and pandemics. This is especially pronounced in “prediction markets” — in which people bet on the outcome of different real-world events, like who will win a political race. But these markets’ accuracy in predicting outcomes — and how they reach their correct or incorrect predictions — remain poorly understood. Now, K. Mason Rock and colleagues introduce a new method for analyzing investor behaviors in prediction markets. Their approach proactively evaluates whether prices are at an appropriate value before any event happens and investors react to market conclusions. The team’s findings include the counterintuitive discovery that investors consistently overvalue the likelihood of high-profile events like the U.S. presidential race. These insights help contextualize the interplay between human behavior and price dynamics, with implications for other financial markets.

[Analog Robots Can Help Scientists Predict the Micro-Interactions Behind Macroeconomic Downturn](#)

March 7, 9:12 a.m. PST, Room 124

Macroeconomic field theory struggles to adequately describe why sudden economic crashes happen. Microeconomics is better able to do so, because it better accounts for the role of “agents,” like workers and institutions, in economic systems. Here, Trung Phan and colleagues will present how they used analog, autonomous robots as agents to model sudden economic collapses. In this analog economic system, the group had robots that represented workers and firm owners traverse a dynamic 2D landscape and make individual decisions about their microeconomic interests. From this, the group observed macro-patterns emerging from small-scale, agent-level interactions. They say the system could be applied to better anticipate macroeconomic responses to real world events, potentially like the default of the debt ceiling.

[Social Outcomes of In-Person and Virtual Conferences](#)

March 7, 10:12 a.m. PST, Room 124

The COVID-19 pandemic led to widespread adoption of virtual conferences, but differences in the social effects of virtual and in-person conferences have not been rigorously studied yet. In this talk, Emma Zajdela and colleagues will describe a model they created to investigate how scientific collaborations arise at conferences. They tested their model with data of participant interactions from several in-person and virtual meetings. The researchers found that the interactions that participants had in organized events, like scientific sessions, predicted who formed teams at virtual meetings better than they predicted team formation at in-person meetings, possibly because informal interactions played a larger role at in-person meetings. However, their analysis also implied that in-person conferences boost attendees' overall awareness of other attendees better than virtual meetings do. The findings suggest that conference organizers may want to choose the meeting format that best suits the participants' goals.

[Analysis of Energy Usage Reveals New York City's New Normal in the COVID-19 Pandemic](#)

March 21, 1:30 p.m. PDT, Virtual Room 1

The emerging “new normal” brought about by the COVID-19 pandemic has sparked countless predictions about the future of work-from-home policies. Now, scientists have begun collecting information that can be used to identify tangible, long-term changes in the dynamic COVID-19 work-scape. In this virtual poster session, Christoph Meinrenken and colleagues will discuss insights that they derived by sampling average energy usages at specific times in 390 inhabited Manhattan apartments from April 1 to April 28 over the last four years. By doing so, they could tell which apartments were vacant during work hours for the past four years. Most notably, the team found that average electric loads at 12 p.m. from 2020 to 2022 went up to 26%, 24% and 12% respectively when compared to 2019 data at the same time. This result indicates that New Yorkers are still working from home more than they did prior to the pandemic. Other observations — like the finding that New Yorkers are back to waking up as early as they did prepandemic — will also be shared, spotlighting the many nuances that lurk within data used to track work-from-home trends.