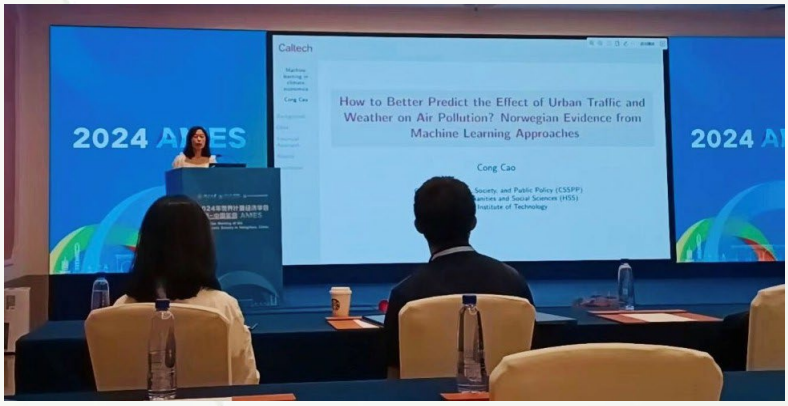
LCSSP | The Ronald and Maxine Linde Center for Science, Society, and Policy

July 2024

Newsletter



Cong Cao, *Caltech*
Postdoctoral Instructor in Science, Society, and Public Policy

How to Better Predict the Effect of Urban Traffic and Weather on Air Pollution? Norwegian Evidence from Machine Learning Approaches

2024 Asian Meeting of the Econometric Society, June 30, 2024

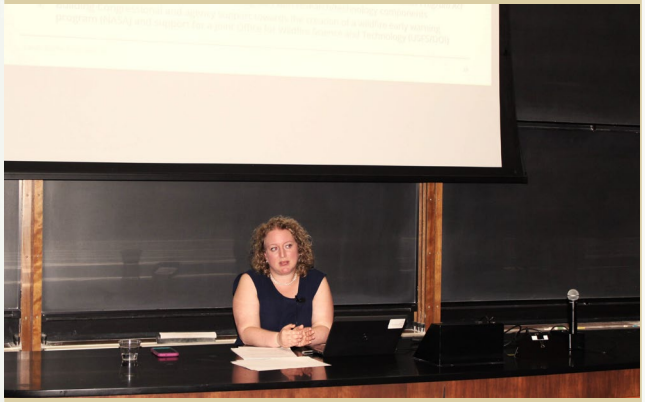
Cong served as session chair and presented a paper that uses machine learning approaches to predict the association between traffic volume, air pollution, and meteorological conditions. A key focus is on the interaction between these factors. The paper does this using hourly traffic volume and weather data for Oslo, Norway.

Climate Change Increases Air Pollution and Heating Demands in Norwegian Cities: A Deep Learning-Based Analysis

2024 International Symposium on Spatiotemporal Data Science, July 24, 2024

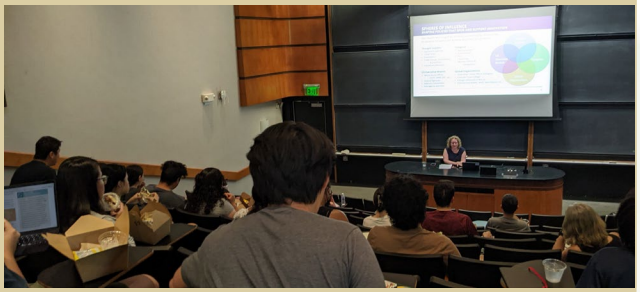
Cong served as session chair and presented a paper on how policymakers frequently analyze air quality and climate change in isolation, disregarding their interactions. This study explores the influence of specific climate factors on air quality. Physics- based Deep Learning and Long Short-Term Memory is employed to examine the air pollution predictions.

Careers in Science Policy



Rebecca Adler Miserendino, Ph.D. (SURF Alum '03, '04, '05) joined us to discuss how she built on her undergraduate research experience to launch a successful career advising the nation's top leaders and policymakers through her position at Lewis-Burke Associates.

In addition to sharing her career story, Dr. Adler Miserendino delivered some "behind the scenes" insights for how scientists can enter the field of science policy and highlight current, hot policy topics.



CALTECH 2024
ELECTION INTEGRITY PROJECT

2024 Caltech Election Integrity Project

We have launched our new 2024 general election research project in the summer of 2024. The project is supported by a research grant to Caltech from The John Randolph Haynes and Dora Haynes Foundation, by the Caltech Linde Center for Science, Society, and Policy, and by the Caltech/MIT Voting Technology Project.

This project builds on the foundation that we have established in our Monitoring the Election research project. We will be continuing our work to provide quantitative and qualitative research on election administration and integrity. Our research will be used by collaborating election officials to improve their election processes and administration, it will be shared with the public and stakeholders, and our work will help support voter confidence in elections. Our research project is academic in focus and is non-partisan.

Alaska top-4RCV paper

Happy to report that we have recently published an innovative survey-based study of the new Top-4/RCV voting process that is used in Alaska.