

2023 - Africa Training Workshop in Econometrics (ATWE-2023)

Title: Climate Change and Causal Inference

Date: June 12-14, 2023

Purpose: This workshop will combine lectures on current research in climate economics together with an introduction to causal inference methods. Topics in climate economics include the social cost of carbon, damage functions and their estimation, and open questions in the literature. The causal inference component will include an introduction to the potential outcomes framework, randomized control trials, instrumental variables and difference-in-differences.

Organizers: [Dalia Ghanem](#) (UC Davis) and [Prosper Dovonon](#) (Concordia University)

Format: Fully remote

Registration fees: 100 USD

Topics and Instructors:

Climate Economics, [Maximilian Auffhammer](#), University of California, Berkeley

- Scientific Background on Climate Change (Brief Review of AR6, focus on Africa)
- Tutorial on available weather and climate data and how to get them into a usable format.
- Overview of Social Cost of Carbon.
- Introduction to Damage Functions.
- Introduction to Damage Function Estimation
- Heterogeneous Panels and Simulation.
- Overview of the Moving Frontier.
- Open Questions in the field and research opportunities with a focus on Africa.

Causal Inference, [Desire Kedagni](#), University of North Carolina, Chapel Hill

- Potential outcomes framework
- Selection bias in observational studies
- Randomized control trials
- Selection on observables and inverse probability weighting
- Instrumental variables estimation and interpretation
- Difference-in-differences methods and sensitivity analysis

Schedule:

All times below are in Canada/USA EDT. The climate change component will be given over two 3-hour sessions, whereas the causal inference component will be delivered three 2-hour sessions.

	June 12	June 13	June 14
08:30AM - 10:30AM	Causal Inference Session I	Causal Inference Session II	Causal Inference Session III
11:00AM - 02:00PM	Climate Change Session I	Climate Change Session II	