



D² SEMINAR SERIES

Florence Center for Data Science 'Double' Seminar Series

Florence Center for Data Science is happy to present the next seminar of the Series on **March 3rd**, from **2.30 - 4 pm**

Click on the link to register online: https://us02web.zoom.us/webinar/register/WN_GprXsGF7Ti6sQ8uyNfqKpQ

SPEAKERS, TITLES, ABSTRACTS:

Augusto Cerqua and Marco Letta - Department of Social Sciences and Economics, Sapienza University of Rome

<u>Title</u>: "Losing control (group)? The Machine Learning Control Method for counterfactual forecasting"

Abstract: "The standard way of estimating treatment effects relies on the availability of a similar group of untreated units. Without it, the most widespread counterfactual methodologies cannot be applied. We tackle this limitation by presenting the Machine Learning Control Method (MLCM), a new causal inference technique for aggregate data based on counterfactual forecasting via machine learning. The MLCM is suitable for the estimation of individual, average, and conditional average treatment effects in evaluation settings with short panels and no controls. The method is formalized within the Rubin's Potential Outcomes Model and comes with a full set of diagnostic, performance, and placebo tests. We illustrate our methodology with an empirical application on the short-run impacts of the COVID-19 crisis on income inequality in Italy, which reveals a striking heterogeneity in the inequality effects of the pandemic across the Italian local labor markets."