



Research
Education
Outreach

CCA

Allievi Program, Master in Economics, and Ph.D. in Economics

ECONOMETRIC THEORY II

Spring 2022

Instructor: Giovanni Mastrobuoni

Contact Information

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Office Hours: Drop by, or send me an email and we set up an appointment

Course Description

This course covers the basics for doing sound empirical work at the postgraduate level. It is particularly aimed at students and researchers who plan on doing applied work for their thesis. The identification issue of causal relationship when analyzing experimental and non-experimental data represents the unifying topic of the course. We will cover the most common approaches to identify causal relationships: conditional independence assumption, matching, instrumental variables, random assignment, regression discontinuity, synthetic control approach, and difference-in-differences, two-way fixed effects models. I will discuss graphical methods to present the main evidence.

Empirical papers will serve as examples, and should give a taste about how to perform a convincing empirical analysis. The ideal experimental setting is often going to serve as a benchmark case. Empirical exercises using STATA with real data are going to be part of the module. Some tasks might involve replicating empirical results of published papers.

Prerequisites

This class builds on prior exposure to statistics and econometrics.

The final grade will be a combination of the problem sets grades, the midterm exam grade and the final exam grade.

Textbooks

The main textbooks for the course are:

- Angrist and Pischke (2009) Mostly Harmless Econometrics
- Wooldridge (2002) Econometric Analysis of Cross Section and Panel Data
- Cameron and Trivedi (2005), Microeconometrics
- Cunningham (2020), Causal Inference: The Mixtape

Available online at:

<https://mixtape.scunning.com/>

Some topics may be covered by reading research papers.