



Research
Education
Outreach

CCA

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

ECONOMETRIC THEORY I

Fall 2021

Instructor: Christoph Albert

Contact Information

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Course description

This course provides an introduction to essential microeconomic tools, combining theory and empirical examples. It consists of two lectures per week and biweekly TA sessions.

Problem sets

Lectures will be accompanied by biweekly problem sets, which are to be handed in at the beginning of each TA session. They will contain both theory and practical coding exercises. You are encouraged to work on the problems sets in groups.

Grading

The final grade will be based on take-home problem sets (20%), a midterm exam (30%), and a final exam (50%)

Textbooks

The main text books for the course are:

- Wooldridge, "Econometric Analysis of Cross Section and Panel Data", MIT Press, 2010.
- Cameron and Trivedi, "Microeconometrics: Methods and Applications", Cambridge University Press, 2005.

List of topics

1. Asymptotic properties of Ordinary Least Squares (Wooldridge, ch. 4)
2. Single equation linear models: IV and control functions (Wooldridge, ch. 5-6)
3. Panel data models (Wooldridge, ch. 10)
4. Maximum Likelihood methods (Wooldridge, ch. 13)
5. Generalized Method of Moments (Wooldridge, ch. 14)
6. Binary and Multinomial Response models (Wooldridge, ch. 15-16)
7. Duration Analysis (Wooldridge, ch. 22)