



Course: Econometrics II
Faculty: André Gröger
Term: Spring
E-mail: Andre.Groger@uab.cat
Web page: <https://sites.google.com/site/andregroeger/>
Office Hours: Upon request

Description

Second half of the required first year course in econometrics. Presents some fundamentals (extremum estimators, ML, GMM) and then surveys a number of topics in econometrics.

Objective

To first gain a good understanding of fundamental tools, and then a broad perspective of additional topics in econometrics.

Gather practical experience with econometric methods and data, through assignments involving a fair amount of work with computers. Students may prepare by learning the basics of Matlab and Stata ahead of time.

Outline

1. Extremum estimators
 - a. theory
 - b. methods
2. Maximum likelihood
 - a. Definition
 - b. consistency and asymptotic normality
 - c. efficiency

- d. likelihood ratio test
- e. examples

3. Generalized Method of Moments

- a. definition
- b. estimation
- c. asymptotic properties
- d. extensions
- e. examples

4. Introduction to time series analysis

- a. stationarity and ergodicity
- b. ARMA models (c) VAR models (d) ARCH models
- c. State space models
- d. nonstationarity and cointegration

5. Additional topics in econometrics

- a. panel data
- b. Bayesian methods
- c. simulation-based estimation
- d. nonparametric methods
- e. quantile methods

References

Lecture notes will be available on the web page

- * Cameron, A.C. and P.K. Trivedi, Microeconometrics - Methods and Applications
- * Davidson, R. and J.G. MacKinnon, Econometric Theory and Methods
- * Gallant, A.R., An Introduction to Econometric Theory
- * Hamilton, J.D., Time Series Analysis
- * Hayashi, F., Econometrics

Grading

- * 3 problem sets (20%)
- * final exam (80%)