

## **ECONOMETRIC THEORY II**

Spring 2017

Instructor: Giovanni Mastrobuoni

### **Contact Information**

Collegio Carlo Alberto +39 011 670 5271

Office 1, Camerata II [giovanni.mastrobuoni@carloalberto.org](mailto:giovanni.mastrobuoni@carloalberto.org)

Office Hours: by appointment [sites.google.com/site/gioannimastrobuoni](https://sites.google.com/site/gioannimastrobuoni)

### **Course description**

This course provides an introduction to more structural econometric tools, combining theory and empirical examples.

### **Grades**

Final course grade will be based on a midterm exam and a final exam.

### **Syllabus**

#### **1. Generalized Method of Moments:**

- a. Single equation GMM
- b. Multiple equation GMM

Specific Readings: Hayashi, F. (2000) "Econometrics" chapters 6 and 7, as well as possibly, Wooldridge, J.M. (2010) "Econometric analysis of cross section and panel data", MIT press, Chapter 14; Newey, Whitney K.; McFadden, Daniel (1994). "Large sample estimation and hypothesis testing". Handbook of Econometrics. IV. Elsevier Science. pp. 2111–2245

#### **2. Extremum Estimators and Maximum Likelihood**

- a. Extremum Estimators
- b. Examples of Maximum Likelihood

Specific Readings:

Hayashi (2000) chapters 7 and 8, and Wooldridge, J. M. (2010) "Econometric analysis of cross section and panel data", MIT press, Chapters 13 and 15, and Cameron, A. C., and Trivedi, P. K. (2005) "Microeconometrics: methods and applications", Cambridge University Press, Chapters 14 to 17