

# Doctoral Program in Economics



Academic year 2020/21

## ECONOMETRICS II

### Period:

Fourth term: from September to November 2021

### Course hours:

20 hours

### Teachers:

Marco Paolo Tucci

### Exam methods:

Weekly computer exercises and a final take home exam.

### Prerequisites:

Econometrics I

### Program

The following topics are covered: the classical k-variable linear regression model and the battery of tests used to check the validity of its assumptions, elements asymptotic theory, the maximum likelihood approach and systems of structural equations (identification and estimation), introduction to time series models, var and vec models, non-stationary time series, unit root test, cointegration analysis (the single equation Engle-Granger procedure and the multivariate Johansen procedure), the LSE approach and exogeneity. Econometric software Eviews is used throughout the course.

### Educational objectives

The goal is to provide the graduate student with a sufficient theoretical and computational background in time-series modeling to understand advanced techniques and to recognize new variants of established models.

### Bibliographical references

Greene (2018) 8th Ed., Johnston and Dinardo (1997), Judge et al. (1985), Favero (2001) and Brooks (2014) as a companion to Eviews, among the others.