

#### Potential attendants:

- Preferably, students should have completed –or be doing– graduate/postgraduate studies and/or research in topics related with SPATIAL ANALYSIS: Regional Science, Urban Economics, Local Planning, International Economics, Geopolitics, Transport, Networks, Geomarketing, Epidemiology, Geology, etc.
- Experts working in regional/urban research and local planning in Governmental Agencies and Research Institutes are welcome.
- Exceptionally, undergraduate students: > 200 ECTS credits.

#### REGISTRATION FEES:

Category	Before February 4, 2019	After February 4, 2019
Ordinary fees	250 €	400 €
UAM students	150 €	250 €
UAM former students ('Alumni')	200 €	320 €

A STATA 15 free temporary license will be provided if needed.

For PREREGISTRATION, send an email to [econres@uam.es](mailto:econres@uam.es)

# SPATIAL ECONOMETRIC ANALYSIS WITH STATA AND R

STATA®



**Place:** FACULTY OF ECONOMICS AND BUSINESS  
ADMINISTRATION, UNIVERSIDAD AUTÓNOMA DE MADRID

**Duration:** From February 11 to 15, 2019 (26 hours, 2.5 ECTS)

**Faculty:**

Prof. Coro Chasco (UAM, Spain)

Prof. Ludo Peeters (Hasselt University, Belgium)

Prof. Andrés Vallone (UCN, Chile)

Maximum: 25 students

Organized and sponsored by:



The GOAL of the Seminar is to provide the participants with a sound understanding of basic and more advanced principles of spatial econometrics and to offer tools for practical application of the methodology. Commonly available software products (*STATA* and *RStudio*) will be introduced and practiced in the PC training sessions.

### Program:

#### I PART: How to use R for spatial analysis (10 hours).

##### **1<sup>st</sup> Session: Monday 11<sup>th</sup> of February, 15:30 – 19:30 (4 hours)**

- I.1. Introduction to R.
- I.2. Treating data with R.
- I.3. Using R

##### **2<sup>nd</sup> Session: Tuesday 12<sup>th</sup> of February, 10:00 – 13:00 (3 hours)**

- II.1. Think as a computer
- II.2. Conditionals
- II.3. Loops: how to build own functions

##### **3<sup>rd</sup> Session: Tuesday 12<sup>th</sup> of February, 14:30 – 17:30 (3 hours)**

- III.1. Use of pre-programming functions
- III.2. Basic statistics in R
- III.3. Packages: installation and usage

#### II PART: Spatial Autoregressive Models with R (9 hours).

##### **4<sup>th</sup> Session: Wednesday 13<sup>th</sup> of February, 10:00 – 13:00 (3 hours)**

- IV.1. Exploratory spatial data analysis (ESDA).

##### **5<sup>th</sup> Session: Wednesday 13<sup>th</sup> of February, 14:30 – 17:30 (3 hours)**

- V.1. Specification strategies in spatial cross-sectional regression models.
- V. 2. Example of specification and estimation strategies in cross-sectional regression models in R.

##### **6<sup>th</sup> Session: Thursday 14<sup>st</sup> of February, 10:00 – 13:00 (3 hours)**

- VI.1. Spatial panel data models in R.

#### III PART: Exploratory spatial data analysis and spatial econometrics using STATA (7 hours).

##### **7<sup>th</sup> Session: Thursday 14<sup>st</sup> of February, 14:30 – 18:30 (4 hours)**

- VII.1. Old STATA commands prior to STATA 15.
- VII.2. New STATA commands in STATA 15.

##### **8<sup>th</sup> Session: Friday 15<sup>th</sup> February, 10:00 – 13:00 (3 hours)**

- VIII.1. EXTENDED 'REAL WORLD' APPLICATION.

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