



UNIVERSITAT DE BARCELONA



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## SEMINAR ON SPATIAL ECONOMETRICS

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### Professors:

- **Giuseppe Arbia**

Economic Statistics and Econometrics at the Department of Business, Statistical, technological and environmental sciences, University G. d'Annunzio, Chieti, Italy; President of the Spatial Econometrics Association

- **Gianfranco Piras**

Department of City and Regional Planning Cornell University, Ithaca, NY, USA

**Date:** April 30th, 2010.

**Time:** Theory (10 am – 1 pm); Laboratory (2.30 pm- 5.30 pm)

**Place:** Theory Room: 106. Facultat d'Economia i Empresa  
Laboratory Room: I09. Facultat d'Economia i Empresa

### Content:

The seminar has a twofold objective. Theoretically, it aims at introducing the most common spatial econometrics techniques, their statistical foundations and giving a flavour of the possible applications, the current state of research and the possible future developments in the field. In an empirical context, it will offer a laboratory in R software for spatial econometrics procedures.

Detailed contents on the theoretical part:

1. Spatial econometrics: a brief history
2. Random field models. Markov random fields. Some particular random field models
3. Specification of spatial econometrics models in terms of random fields: Spatial lag and spatial error model.
4. Examples based on the Barro-Sala i Martin model of regional growth.
5. Some critiques to the models. Alternative spatial econometrics specifications
6. Beyond the linear regression model: Different approaches and recent Developments

For people interested in the advances of Spacial Econometrics, consider the course given by the Spatial Econometrics Advanced Institute taught by Prof. H. Kelejjan, Prof. J. Paelinck, Prof. I. Prucha, Prof. B. Baltagi and Prof. G. Arbia ([www.spatialeconometricsadvancedinstitute.org](http://www.spatialeconometricsadvancedinstitute.org)).