JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN

ZEU

GGS Gießener Graduiertenzentrum Sozial-, Wirtschafts- und Rechtswissenschaften

Workshop

Spatial Data Analysis

Organizational Details

Instructor:	Timo Mitze
Date:	July 11, 2017 from 09.00 – 18.00 h
	July 12, 2017 from 09.00 – 16.00 h
Location:	PC-Pool Wirtschaftswissenschaften (HS 30, PC-Pool), Licher Str. 68
ECTS:	1 ECTS

Objectives

The goal of this course is to equip participants with basic knowledge of methods and practical tools in the field of spatial econometrics. Besides presenting the general logic and theoretical foundations of these modelling approaches for variables with a geographical context, a focus lies on illustrating the potential avenues for applied work with these tools in the software package STATA.
The course is structured as follows: After a brief introduction of the historical evolution of spatial data analysis, different research settings in economics and related research fields are outlined, which call for the explicit use of spatial estimation techniques. Following this introduction, the concept of the spatial weighting matrix is introduced and statistical approaches to measure and visualize the degree of spatial dependence for a variable under study are presented.
Moving from univariate to multivariate modelling techniques, the course then presents estimation techniques for spatial models and applies this theoretical knowledge to hands-on applications for different spatial datasets. Finally, as an outlook on future research possibilities, state-of-the-art concepts such as spatial panel data models will be presented.
At the end of the course, participants shall be able to detect the degree of spatial dependence in the available data and judge which spatial econometric models are most appropriate given the research question at hand. Moreover, participants will acquire the ability to estimate such models using the software package STATA.
Datasets, STATA do- and ado-files will be provided ahead of the course.

Content & Methods

Spatial statistics, spatial weights matrix, spatial econometrics, model validation and interpretation

Target Group & Course Language

The course addresses the needs of applied researchers for whom „space matters“. Participants of the course should have basic knowledge in applied econometrics (for cross-sectional and panel data). Further, basic knowledge of STATA programming is helpful to work with the empirical examples.

Registration

This workshop is a cooperation of GGS, ZEU and the DAAD Ph.D. Program "Agricultural Economics and Rural Development". Therefore, only part of the spots are free for GGS members.

Please register **until July 1, 2017** via e-mail at info@ggs.uni-giessen.de