



PhD SCHOOL IN STATISTICS
Department of Statistical Sciences

Specialist Course

XXIX cycle

PANEL DATA ANALYSIS

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Schedule

July 16, 2014	10.00 – 12.00
	14.00 - 16.00
July 17, 2014	10.00 – 12.00
	14.00 – 16.00

Summary:

www.stat.unipd.it/phd/courses_2014

Panel Data Analysis

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This course considers methodological and substantive issues concerning the analysis of panel data. It starts by reviewing basic panel data models emphasizing the benefits and limitations of panel data over time series or cross-section data.

Basic estimation, testing and forecasting methods for random and fixed effects models are reviewed and illustrated with empirical applications using Stata and EViews.

Next, problems of endogeneity in panel models are studied and panel instrumental variable estimation methods as well as Hausman type tests are reviewed and applied using empirical applications.

Dynamic panel models are studied next and Generalized Method of Moments estimation as well as tests of over-identification restrictions are illustrated using empirical applications.

Other topics that will be covered include the treatment of unbalanced panels, rotating panels, pseudo-panels, count panels, spatial panels, attrition, selection bias and limited dependent variable panel models.

For large macro panels with a large number of countries observed over a long time series, we study issues of non-stationarity (panel unit root tests) and cointegration in panels and illustrate these methods using Stata and EViews.