## Design and Data Analysis for Experiments, Winter Semester 2013/2014

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Wednesday, 13th November 2013, 9:00 to 13:00; 14:00 to 18:00 Thursday, 14th November 2013, 9:00 to 13:00; 14:00 to 18:00 Friday, 15th November 2013, 9:00 to 13:00; 14:00 to 18:00

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## Overview

In recent times, also in economics, experiments have increasingly been used. Econometrically, they have important advantages compared to non-experimental data sets. They allow controlling the parameters of the situation, which reduces uncontrolled variance. Most importantly, exogenous treatment variations allow causal conclusions to be drawn. Nevertheless, there are also econometric problems, which are typical for experimental data. Data sets are small, variables are often discrete and the interaction in a typical experiment creates dependencies in the data. In this course, I will give an introduction to the experimental method and discuss the econometric problem, typical in the analysis of economic experiments.

## Content

Experience experiments

Non-parametric tests

Applications to different experiment types

Experimental method – advantages and limits of experiments

Experimental design

Regressions for experimental data

Modeling economic behavior and testing theories

Heterogeneity

Practical questions: Data collection and organization

## Literature

Nicholas Bardsley, Robin Cubitt, Graham Loomes, Peter Moffatt, Chris Starmer & Robert Sugden, Experimental Economics: Rethinking the Rules, Princeton University Press.

Daniel Friedman and Shyam Sunder. Experimental Methods: A Primer for Economists. Cambridge University Press, 1994.

Sidney Siegel and N. John, Jr. Castellan. Nonparametric Statistics for the Behavioral Sciences. (difficult to get).

James H. Stock and Mark W. Watson. Introduction to Econometrics, Addison-Wesley Longman, Amsterdam.

Joshua D. Angrist and Jörn-Steffen Pischke. Mostly Harmless Econometrics: An Empiricist's Companion.