PhD Course

Econometrics

block course: February 1st- 3rd, 2023, full time

Place: Zoom (Link will be provided on the course website) or Room 0027

Course Instructor: Professor Martin Spindler (UHH)

Course Value: 2 SWS or 5 LP

Course Overview: The main goal of this course is to give an introduction to causal inference for applied empirical research, and if time allows to recent developments. Handouts of the slides will be provided during the course. The target audience are empirical researchers/PhD students who want to apply those methods for their research.

Topics:
1) Introduction to Causal Inference/Basic Framework
2) Methods for Causal Inference (Diff-in-Diff, IV, Propensity Score Matching, Randomized Control Trials, ...)
3) Recent Developments

Teaching language: English

Student evaluation: Presentation of a recent paper in a blocked session (TBA) or presentation/written summary of a research project/idea

Prerequisites: Knowledge in regression analysis and basic Statistics/Econometrics

Registration: via STiNE, please. Questions to ls.statistik@uni-hamburg.de

Schedule (tentative):

<table>
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<tr>
<th>Date</th>
<th>Times</th>
<th>Location</th>
<th>Topics</th>
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<tbody>
<tr>
<td>Day 1</td>
<td>8:30 - 10:00</td>
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<td>Introduction, Basics of Causal Inference, RCT, Diff-in-Diff, Instrumental Variables Estimation</td>
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<td>10:15 - 11:45</td>
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<td>Day 2</td>
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<td>Regression Discontinuity, Panel Data Methods, Propensity Score Matching</td>
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<td>Day 3</td>
<td>8:30 - 10:00</td>
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<td>Current research papers and recent developments</td>
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References (basics):


References (advanced papers):


Athey and Imbens (2016). Recursive Partitioning for Heterogeneous Causal Effects. PNAS.

Athey and Wager (2017). Estimation and Inference of Heterogeneous Treatment Effects using Random Forests. JASA.


