

# Seminar on Treatment Effects: Estimation and Inference

Tomasz Olma and Vincent Starck

LS (Seminar)

Sommersemester/summer semester 2026

Treatment effects are the central object of interest in the econometrics of program evaluation. In this seminar, we will cover a series of recent developments in the theory and practice of estimation and inference on treatment effects based on experimental as well as observational data. We will focus on two main blocks.

1. Nonparametric methods for regression discontinuity and kink designs. We will discuss the challenges related to inference in the presence of a smoothing bias and the solutions relying on the so-called robust bias corrections and bias-aware inference. We will also cover selected extensions of the standard designs, such as covariate adjustments, testing for manipulation, partial identification with a manipulated running variable, and geographic RD designs.

2. Models with latent variables. Latent variable models arise frequently in econometrics due to unobserved components, measurement errors, or hidden steps and often lead to identification issues and challenges to estimation. We will discuss approaches to identification using further restrictions or auxiliary information, estimation of parameters, or derivation of robust estimates in such frameworks.

<b>Studiengang:</b> <i>Program:</i>	MSc
<b>Termin Vorbesprechung (tt.mm.jjjj):</b> <i>Date of preliminary meeting (dd.mm.yyyy):</i>	April 2026, Registration will be in March 2026 via LSF (01.03 - 21.03.2026).
<b>*Bearbeitungszeitraum für die Hausarbeit:</b> <i>*Working period for term paper:</i>	Until August 2026
<b>*Seminartermin:</b> <i>*Seminar date:</i>	July 2026
<b>Veranstaltungsort:</b> <i>Venue:</i>	Institut für Statistik Ludwigstr. 33
<b>falls außerhalb: Kostenschätzung:</b> <i>if out of Munich: estimated costs:</i>	€
<b>Sprache:</b> <i>Language:</i>	English
<b>Empfohlene Vorkenntnisse:</b> <i>Recommended courses:</i>	Causal Inference (Wilhelm) Econometric Theory (Olivares)
<b>Methodischer Schwerpunkt:</b> <i>Methodological background:</i>	Intermediate Econometrics and Probability & Statistics at advanced undergraduate level.
<b>*Grundlagenliteratur:</b> <i>*Basic references:</i>	
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\* Optional (falls schon bekannt) / optionally (if already known)