# Lennart Oelschläger

Research Associate and PhD Student Bielefeld University, Germany Born on 16.11.1994.

«Identify the essential. Can you eliminate the rest?»

☑ oelschlaeger.lennart@gmail.com

**4** +49 177 60 39 520

github.com/loelschlaeger

twitter.com/l\_oelschlaeger

② loelschlaeger.de



# **Employment**

Research Associate, Bielefeld University

2019 - current

#### Education

Ph.D. Student in Econometrics, Bielefeld University

2019 -  ${\it current}$ 

M.Sc. in Mathematical Economics, Bielefeld University

2017 - 2019

B.Sc. in Mathematics, Bielefeld University

2013 - 2017

## **Publications**

JOURNAL ARTICLES

Detecting bearish and bullish markets in financial time series using hierarchical hidden Markov models, Oelschläger and Adam (2021), Statistical Modelling

#### Conference Papers

Bayes Estimation of Latent Class Mixed Multinomial Probit Models, Oelschläger and Bauer (2021), TRB Annual Meeting

#### Software

fHMM: Fitting (hierarchical) hidden Markov models to financial data.

RprobitB: Bayesian estimation of probit models.

ao: Alternating optimization of (high-dimensional) functions.

vntrs: Variable neighborhood trust region search.

ino: Initialization of numerical optimization.

## **Talks**

Bayes estimation of probit choice models with {RprobitB}, 10th Young Researcher Workshop at Bielefeld University, 10.03.2022

Klassifizierung von PrC\$ferenzen: Eine Anwendung mit dem R Paket RprobitB, 27. AKA-Workshop at Kloster Irsee, 18.11.2021

On the initialization of multinomial probit models, 9th Young Researcher Workshop at Bielefeld University, 16.07.2021

Bayes estimation of latent class mixed multinomial probit models, Poster Session at the 100th Transportation Research Board Annual Meeting, 28.01.2021

Approximating mixing distributions in probit models via a Bayesian approach, Centre for Statistics at Bielefeld University, 24.11.2020

Detecting bearish and bullish markets in financial time series using hierarchical hidden Markov models, Doctoral Day at Bielefeld University, 02.10.2020

# Teaching

R course, Bielefeld University	WT $21/22$
Reading course for statistical science, Bielefeld Univer	esity WT 21/22
Preparatory course for mathematics, Bielefeld University	sity WT 21/22
Exercise course for mathematics, $Bielefeld\ University$	WT 19/20, ST 20, WT 20/21, SS 21, WT 21/22
Tutorial for statistics, Bielefeld University	WT 15/16, ST 16, WT 16/17, WT 18/19, ST 19

## Miscellanea

Aviation: I own a private pilot license.

Chess: I play chess since I am 5 years old.

Tennis: Only outside and in good weather.

Languages: English, French, R, LaTeX, Markdown, C++, Matlab, Python, Java.