



Universität Potsdam

# CAUSAL INFERENCE AND MACHINE LEARNING

Joint Lecture Series by **Guido W. Imbens**

# About the Lecture Series

At the intersection of computer science and statistics, **machine learning** is often called the most influential advancement of this century. This lecture series will introduce machine learning in the context of empirical economic research.

## The Lecturer

**Guido W. Imbens** is the Applied Econometrics Professor and Professor of Economics at the **Stanford Graduate School of Business**. Being well-known for his influential work on causal inference in econometrics, he has published in the highest-ranking journals (inter alia Econometrica, American Economic Review, Review of Economic Studies, Journal of the American Statistical Association, Biometrika) and is a fellow of the Econometric Society and the American Academy of Arts and Sciences.

## Contact Information

Prof. Dr. Marco Caliendo  
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The Berlin Doctoral Program in Economics and Management Sciences (BDPEMS), the Berlin School of Economics PhD Program (BSE), the Berlin Network of Labor Market Research (BeNA), the Center for Economic Policy Analysis (CEPA), the Potsdam Center for Quantitative Research (PCQR) and the Faculty of Economics and Social Sciences are proud to present:

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### Program

Monday   September 9	
14:00 – 14:25	Registration
14:25 – 14:30	Welcome and Introduction (Marco Caliendo)
14:30 – 16:00	Introduction to Causal Inference
16:00 – 16:30	Break
16:30 – 18:00	Introduction to Machine Learning Concepts
18:15	Welcome Reception*
Tuesday   September 10	
10:30 – 12:00	Causal Inference: Average Treatment Effects with Many Covariates
12:00 – 13:15	Lunch Break
13:15 – 14:45	Causal Inference: Heterogenous Treatment Effects
14:45 – 15:15	Break
15:15 – 16:45	Causal Inference: Experimental Design and Multi-armed Bandits
Wednesday   September 11	
10:00 – 11:30	Synthetic Control Methods and Matrix Completion
11:30 – 12:00	Wrap-Up and Discussion

\*Ulf's Café (see map)

# Location

## Campus Griebnitzsee | House 6 | Room Ho2



### Directions from Station Griebnitzsee to Lecture Hall

Go downstairs and turn right. At the end of the under-pass go upstairs and turn left. Cross the street “Prof.-Dr.-Helmert-Straße” and keep on walking to building 6 – “Hörsaalgebäude” which will appear on your right hand side. Enter through the main entrance and turn right in the entrance hall. Room Ho2 will be the first door on your right.