

# Certificate of Participation

## GESIS Summer School in Survey Methodology 2023

### Causal Inference Using Survey Data

This is to certify that

**Federica Cagnoli**

participated in the above named course, part of the “GESIS Summer School in Survey Methodology 2023”, which took place in Cologne. The GESIS Summer School offers high quality training in state of the art techniques and methods of survey research. It aims to equip participants with essential skills in the design, planning, execution, documentation and quality assurance of surveys of households, individuals or organizations.

The course was held over 5 days, consisting of 30 hours of onsite instruction and practical exercises.

*Lecturers:* Dr. Heinz Leitgöb (Leipzig University)  
Prof. Dr. Tobias Wolbring (Friedrich-Alexander-University, Erlangen-Nürnberg)

*Date:* 07-11 August 2023

*Course content:*

- Introduction to causality and causal inference
- Directed Acyclic Graphs (DAGs): foundations, confounders, colliders, and mediators
- Factorial survey experiments and natural experiments
- Regression, matching, and inverse probability weighting
- Longitudinal (in particular panel) designs
- First-differences, random and fixed effects regression, diff-in-diff-estimation
- Impact dummies, heterogeneous effects, and IV estimation
- Impact of data quality on causal inference

Cologne, 11 August 2023