Using Directed Acyclic Graphs (DAGs) to Advance Causal Inference with Observational Data

Abstract

Causal inference based on observational data often hinges on the assumption that all relevant confounding variables are captured in the model and only exogenous variation of the treatment variable is used for identification. However, when multiple potential controls are involved, researchers may overcontrol or miss crucial opportunities for rigorous causal modeling. In such cases, Directed Acyclic Graphs (DAGs) can help to find potential identification strategies and clarify underlying implicit assumptions. In this seminar, Professor Dr. Tobias Wolbring will introduce how to use DAGs to unravel complex social science research questions and DAGitty – a freely available online tool – which allows us to analyze intricate graphs with ease. By the end of the seminar, you will be equipped to apply these techniques to enhance our own researches, ensuring you are on the right track in uncovering true causal relationships.