



Wir laden Sie sehr herzlich ein zu einem Vortrag im Rahmen des
Oberseminars Stochastische Analysis:

Stephan Eckstein
(ETH Zurich)

“Optimal transport and Wasserstein distances for causal models”

Dienstag, 4. Juli 2023

Beginn: **16.00 Uhr**

Raum: **F426**

Interessenten sind herzlich willkommen!

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Abstract: Optimal transport theory is a natural way to define both a distance and a geometry on the space of probability measures. In settings like graphical causal models (also called Bayes networks or belief networks), the space of probability measures is enriched by an information structure modeled by a directed graph. This talk introduces a variant of optimal transport including such a graphical information structure. The goal is to provide a concept of optimal transport whose topological and geometric properties are well suited for structural causal models. In this regard, we show that the resulting concept of Wasserstein distance can be used to control the difference between average treatment effects under different distributions, and is geometrically suitable to interpolate between different structural causal models.