ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Bicausal optimal transport for stochastic differential equations with jumps

Alexander Söllinger | University of Klagenfurt

Chaired by Michaela Hitz | Department of Statistics

Wednesday, 3 December 2025 | 11:00–11:30

N.2.35

ABSTRACT

Optimal transport can be used to define a metric on the space of probability measures. This is referred to as the Wasserstein distance. However, when dealing with measures on the path space, this distance is flawed. To correct this, the adapted Wasserstein distance is introduced to incorporate the information structure of the process. To calculate these distances, an optimization problem has to be solved. In the case of measures that are the law of certain stochastic differential equations, it can be shown that the so-called synchronous coupling is the optimizer. My research focuses on extending the class of stochastic differential equations for which this result holds, especially toward more general driving processes.

We hope to see you there!