ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to the Doctoral Seminar

Dr. Konstantinos Dareiotis

University of Leeds

"Approximation of stochastic equations with irregular drifts"

https://classroom.aau.at/#/mathstat

Wednesday, 12 May 2021

11:00 a.m.

Abstract

In this talk we will discuss about the rate of convergence of the Euler scheme for stochastic differential equations with irregular drifts. Our approach relies on regularisation-by-noise techniques and more specifically, on the recently developed stochastic sewing lemma. The advantages of this approach are numerous and include the derivation of improved (optimal) rates and the treatment of non-Markovian settings. We will consider drifts in Hölder and Sobolev classes, but also merely bounded and measurable. The latter is the first and at the same time optimal quantification of a convergence theorem of Gyöngy and Krylov. This talk is based on joint works with Oleg Butkovsky, Khoa Lê, and Máté Gerencsér.

Michaela Hitz and the Department of Statistics look forward to seeing you at the talk!