ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Approximation of stochastic equations with irregular drifts

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Chaired by Michaela Hitz | Department of Statistics

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https://classroom.aau.at/math-stat

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.

We hope to see you there!