

Recent developments in discontinuous rough paths

Thursday, October 19, 2017 1:45 PM (45 minutes)

In this talk, we will present the main features of rough paths theory in the discontinuous setting. We will discuss several notions of solutions to discontinuous RDEs and stability results which render the solution map continuous. We will also present an (enhanced) BDG inequality for lifts of càdlàg local martingales. Time permitted, we will discuss several applications, including robust Wong-Zakai-type theorems in the spirit of Kurtz-Pardoux-Protter, and weak convergence of stochastic flows which extends classical results of Kunita. Joint work with Peter Friz.

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