

Title: SPDE in critical spaces.

Abstract: In this talk I will give an overview of several recent developments concerning quasi- and semi-linear SPDEs in critical spaces. I will present a new method to prove local and global well-posedness results, and new bootstrap method to show higher order regularity of the solution. Several applications to examples will be given, including the stochastic Navier-Stokes equations, reaction-diffusion equations, Cahn--Hilliard equations. The talk is based on joint work with Antonio Agresti.