Mathematics, Statistics, and Computer Science   **@ UIC**

Applied Mathematics Seminar

Controlled distributions and a parabolic Anderson model

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Abstract: Inspired by ideas from rough path theory, Gubinelli et al. developed the theory of controlled distributions to study stochastic PDEs that involve products of distributions which are a priori not well-defined. This approach is very close to Hairer's theory of regularity structures, though the later is more local in nature.

In this talk I will use a parabolic Anderson model as an example to introduce Gubinelli's theory. In particular, I will show existence of a solution to the equation. The talk is based on an ongoing work with Samy Tindel.

Monday, April 27 at 4:00 PM in SEO 636