Séminaire de Probabilités et Statistique

Mardi 15 Mars à 14h00
Laboratoire Dieudonné

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Directed polymers and the Stochastic Heat Equation with Lévy noise

I will introduce the directed polymer model in dimension 1+d, which describes a one-dimensional polymer chain placed in some disordered medium. I will give an overview of the model and I will discuss its relation to the stochastic heat equation (SHE) with multiplicative noise. This has been widely studied in the case where the disorder admits a second moment ; it corresponds to the SHE with Gaussian white noise. I will then present the results obtained in collaboration with Carsten Chong (Columbia, USA) and Hubert Lacoin (IMPA, Brazil) on directed polymers and the SHE with Lévy noise.