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Convergence to equilibrium for Gaussian driven SDEs

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Abstract

In this talk, I will present results on the convergence to the stationary regime for Stochastic Differential Equations driven by an additive Gaussian noise and evolving in a semi-contractive environment, i.e. when the drift is only contractive out of a compact set but does not have repulsive regions. In this setting, a sub-exponential bound is obtained on the rate of convergence to equilibrium in Wasserstein distance, and a similar bound in total variation distance is then derived. This is based on a joint work with F. Panloup.