# Séminaire de Probabilités et Statistiques

Mardi 20 septembre à 14h00
Laboratoire Dieudonné
Salle de Conférences

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## *Stochastic resonance*

The aim of the talk is to present a first step in studying stochastic resonance for huge systems of interacting particles. These systems can be compared to self- stabilizing diffusions, i.e. processes attracted by their own law satisfying nonlinear stochastic differential equations (McKean-Vlasov). In this framework, several results are pointed out : the importance of the system inertia (exit problem), the large deviations behaviour of nonlinear diffusions in the small noise limit and the existence of several invariant measures (exactly three invariant measures in the selected model).