Cut-off phenomenon in diffusions Markov processes

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Resumo/Abstract:
We study the cut-off phenomenon for a family of stochastic perturbations of a dynamical system. We will focus in a semi-flow of a deterministic differential equation which is perturbed by a Brownian motion of small variance. Under suitable hypothesis on the vector field we will prove that the family of perturbed stochastic differential equations present a cut-off phenomenon.