Statistical estimation of diffusion processes with discontinuous coefficients

Paolo Pigato

TOSCA, INRIA Nancy, Francia

29 de febrero de 2016

Abstract: We consider the problem of estimating the parameters of a stochastic differential equation with discontinuous diffusion coefficient. We focus in particular on Oscillating Brownian Motion, a classical example of this type of diffusion. We also see how this process can be constructed as limit of Oscillating Random Walks, and consider the problem of statistical estimation of these discrete objects.