

Malliavin calculus and computational finance

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To compute the expectation of diffusion processes quickly and precisely is very important in Finance. This is one of main topics in Computational Finance and various kinds of methods have been proposed. In this topic, Malliavin calculus is a powerful tool. We present a method based on Malliavin Calculus and Lie algebra. In the end, we also discuss about this method for diffusion processes with Dirichlet boundary condition.