



## 复旦大学数学科学学院 数学综合报告会

报告题目: **Chaotic extensions and the lent particle method for Brownian motion**

报告人: Prof. Laurent DENIS (University of Maine, France)

报告时间: 2016-10-11 星期二 10:30-11:30

报告地点: 光华东主楼 1801

摘要: In several works with N. Bouleau, we have developed a Malliavin calculus on the Poisson space based on the lent particle formula which consists in adding a particle to the system then derivating with respect to this particle and finally removing it. The aim of this work is to prove that, on the Wiener space for the standard Ornstein-Uhlenbeck structure, we also have such a formula which permits to calculate easily and intuitively the Malliavin derivative of a functional. Our approach uses chaos extensions associated to stationary processes of rotations of normal martingales.

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