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## PRICING AMERICAN OPTION USING MALLIAVIN CALCULUS

**Abstract:** The Malliavin calculus is an especially promising tool for solving the pricing problem of American options. The Malliavin calculus has been used, for example, by Lions and Reigner (2001), Bally et al. (2005) and Abbas-Turki et Lapeyre (2012). These authors were able to develop representation formulas for the conditional expectation using Malliavin calculus based on the expectation estimation by using Monte Carlo simulations.

In order to solve the aforesaid problem in the case of a stochastic volatility generated by the Heston model (1993), using the Malliavin calculus, we introduce a new representation for the conditional expectation related to the pricing of an American put option problem.

MARDI / TUESDAY

30 juin 2015 /  
June 30th, 2015  
10h30

Salle / Room 5441  
Pavillon André-Aisenstadt  
Université de Montréal

Ouvert à tous / Open to all

**Organisateur / Organizer**  
**Fabian Bastin**

