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## Joint Statistics Seminar

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*The Hong Kong University of Science and Technology*

### Option Prices in terms of Distribution Functions

*by*

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**Date: November 6, 2009 (Friday)**  
**Time: 4:30 p.m. - 5:30 p.m.**  
**Venue: Room 3401 (Lift 17/18)**

#### **Abstract**

The Black-Scholes type formula associated with a martingale is an increasing function of time, and can be written as the distribution function of a last passage time. However, if the formula is associated with a strict local martingale, then the call option function is no longer increasing in time. As an example, we show that the call option prices associated with the Bessel strict local martingales are integrable over time, and we discuss the probability densities obtained thus.

This is joint work with Marc Yor.

❖ **All interested are welcome!** ❖  
*For details, please contact ISOM Department.*