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DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Post-Leave Presentation

Ms. WANG Guanqing

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will give a talk

entitled

**PRICING ZERO-COUPON BOND AND CDS
UNDER A STRUCTURAL CREDIT RISK MODEL
WITH REGIME SWITCHING**

Abstract

In this talk, we consider a defaultable firm with its market value being defined as a geometric jump-diffusion process with regime switching. We investigate the fair premium for the zero-coupon bond under the proposed model. The fair premium relies on the Laplace transform for the expected discounted loss of the market value at default time. Integro-differential system for the Laplace transforms is obtained. Closed form results for pricing the fair premium are derived when the common distribution of jumps is double mixed exponential distribution. Some numerical solutions are presented to demonstrate the usefulness of our method.

Key words: Default probability; Fair premium; Zero-coupon bond; Laplace transform; Expected discounted loss at default time

on

Friday, September 11, 2015

9:30 a.m. – 10:30 a.m.

at

Room 301, Run Run Shaw Building

All interested are welcome