



Department of Mathematics

Numerical Mathematics and Applied Analysis Group Seminar (NMAA)

Risk Measures and Behaviors for Bonds Under Stochastic Interest Rate Models

Miss Na SONG

Department of Mathematics, HKU

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Abstract

This paper develops a model for measuring risk inherent from trading a bond position under some important stochastic interest rate models. We employ VaR and Expected Shortfall (ES) as proxies for the extreme risk inherent from trading a bond position. In particular, we concern the average tail behavior of the real-world Profit/Loss distribution for a bond position. We investigate the risk behaviors of a bond position under some stochastic interest rate models including the Merton model, the Vasicek model and the Cox-Ingersoll-Ross (CIR) model.

All are welcome
