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INSTITUTIONEN FÖR MATEMATIK
Avd. för Matematisk statistik
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Seminarium i finansiell matematik vid KTH

Andreas Mattsson presenterar sitt examensarbete måndagen den 4 september 2000 kl. 15.15 – 16.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7:

Pricing of Bermudan Swaptions Using a Monte Carlo Simulation Approach

Abstract: This work presents an implementation of a Monte Carlo method using least squares for pricing Bermudan swaptions. The first part of the work describes the model used for the evolution of the interest rate structure, the Brace-Gatarek-Musiela model. The second part discusses the pricing of Bermudan swaptions in general, and a method proposed by Longstaff and Schwartz in detail. The method uses least squares to get a conditional expected value of continuation at each possible exercise date, which in turn is used to estimate the optimal stopping rule and to price the instrument. Using a Monte Carlo method, one can avoid difficulties of path dependency and problems with many factors experienced in a tree approach.

VÄLKOMNA

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