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Einladung

zum Vortrag im Rahmen des **SFB Colloquiums** (Standort Linz), mit dem Titel

Structural Credit Risk Models under Incomplete Information

VORTRAGENDER: **Prof. Rüdiger Frey**, WU Wien

DATUM: Freitag, 22. Mai 2015

ZEIT: 13:45 Uhr

ORT: Science Park 2, S2 054, JKU Linz

Abstract:

The talk is concerned with structural credit risk models with incomplete information of the asset value. It is shown that the pricing of typical corporate securities such as equity, corporate bonds or CDSs leads to a nonlinear filtering problem. This problem cannot be tackled with standard techniques as the default time does not have an intensity under full information. We therefore transform the problem to a standard filtering problem for a stopped diffusion process. This problem is analyzed via SPDE results from the filtering literature. In particular we characterize the default intensity under incomplete information in terms of the conditional density of the asset value process. Moreover, we give an explicit description of the dynamics of corporate security prices. Finally, we explain how the model can be applied to the pricing of bond and equity options and we present results from a number of numerical experiments.

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