

## Vorträge

**Dienstag, 7. Februar 2012, von 15:00 Uhr bis 16:00 Uhr, Seminarraum C 209**

**Vortrag im Rahmen des Seminars Finanzmathematik**

**David Hobson: "Skorokhod embeddings, the Azema-Yor and Perkins embeddings and model-independent bounds for the prices of Variance Swaps"**

Abstract:

The Skorokhod embedding problem (SEP) for Brownian motion  $W$  is, given a centred probability measure  $\mu$ , to find a stopping time  $\tau$  such that the stopped process  $W_\tau$  has law  $\mu$ .

Azema and Yor and later Perkins gave explicit solutions to the SEP with particular optimality properties.

The robust pricing problem, is given the prices of vanilla options but under no further assumptions on the model, to give model independent prices and hedges for co-maturing exotic options.

In this talk we discuss the link between these two problems and show how the Azema-Yor and Perkins embeddings can be used to give bounds on the prices of barrier and lookback options, and also how the Perkins embedding leads to bounds on the prices of discretely monitored variance swaps.