Karlsruher Institut für Technologie

Institut für Stochastik

Einladung zu einem Vortrag in der

AG STOCHASTIK

am Dienstag, 27.01.2026, um 15.45 Uhr.

Prof. Anne MacKay

University of Sherbrooke, Canada

spricht über das Thema

On an optimal stopping problem with a discontinuous reward

We study an optimal stopping problem with an unbounded, time-dependent and discontinuous reward function, which is motivated by the pricing of a variable annuity contract. We consider a general fee and surrender charge function, and give a condition under which optimal stopping always occurs at maturity. Using an alternative representation for the value function of the optimization problem, we study its analytical properties and the resulting surrender (or exercise) region. In particular, we show that the non-emptiness and the shape of the surrender region are fully characterized by the fee and the surrender charge functions, which provides a powerful tool to understand their interrelation and how it affects early surrenders and the optimal surrender boundary.

Ort: SR 1.067 (Geb. 20.30)

Die Dozentinnen und Dozenten der Stochastik