

On Optimal Stopping and Stochastic Control of Linear Diffusions

Jukka Lempa

Turku School of Economics

jukka.lempa@tse.fi

The talk is concerned with optimal stopping and control of linear diffusions. The objective is to describe a fixed point argument that can be used in deriving necessary conditions for the existence of a unique control policy. The argument relies on an elementary result from real analysis, which states that a continuous monotone function $f : \mathbf{R} \rightarrow \mathbf{R}$ from an interval $A \subseteq \mathbf{R}$ onto a strict subset of A has a fixed point.