

Financial Mathematics/Engineering Seminar Series

Equilibrium Asset Pricing with Transaction Costs Dr Martin Herdegen University of Warwick, United Kingdom

Abstract

We study risk-sharing economies where heterogenous agents trade subject to quadratic transaction costs. The corresponding equilibrium asset prices and trading strategies are characterised by a system of nonlinear, fully-coupled forward-backward stochastic differential equations. We show that a unique solution generally exists provided that the agents' preferences are sufficiently similar. In a benchmark specification with linear state dynamics, the illiquidity discounts and liquidity premia observed empirically correspond to a positive relationship between transaction costs and volatility. The talk is based on joint work with Johannes Muhle-Karbe and Dylan Possamaï.

About the speaker

Dr. Martin Herdegen is an Associate Professor of Financial Mathematics in the Department of Statistics at University of Warwick. He held a MSc in Mathematical Sciences from University of Bath in 2009 and a PhD in Mathematics from ETH Zürich in Switzerland in 2014. Before joining Warwick, Dr. Herdegen was a postdoctoral research fellow at ETH Zürich. His current research interests lie in probability theory with application in mathematical finance.

Date

25 March 2021
(Thursday)

Time

16:00 – 17:00 (HK Time)
08:00 - 09:00 (GMT)

Zoom

<https://polyu.hk/uvwhw>

