Hong Kong - Singapore joint Seminar Series in Financial Mathematics/Engineering

The Growth-Optimal Portfolio in Fund Models
Professor Johannes Ruf
London School of Economics

Abstract

This study concerns the estimation of the growth-optimal portfolio. The growth-optimal portfolio, or the numeraire portfolio, maximises the expected logarithmic growth rate and plays a fundamental role in portfolio choice and asset pricing. Efficient estimates of the growth-optimal portfolio under the CAPM and multi-fund models are derived. The accuracy of estimation is greater, the larger the variances of the returns. A measure of investors' economic loss caused by information loss due to missing data, or unavailable observations is provided. In particular, the economic loss is larger, the larger the investment universe or the factors affecting asset returns. The estimate has a Bayesian interpretation. A shrinkage method targets maximal growth with the least amount of deviation of the growth rates. Joint work with Kostas Kardaras and Hyeng Keun Koo .

About the speaker

Johannes Ruf is a Professor at the London School of Economics (LSE) and a leading academic in mathematical finance. Prior to LSE, he was a Senior Research Fellow at the Oxford-Man Institute of Quantitative Finance and a Senior Lecturer at the University College London (UCL). Johannes was awarded his Ph.D. in Statistics at Columbia University. His research interests include machine learning and portfolio theory. His work received several industry prizes including the 'Morgan Stanley Prize for Excellence in Financial Markets' and a Savvy Investor recognition for the 'Best Factor Investing Papers of 2018.' His research was covered by Risk Magazine and he was a Fulbright scholar and won several teaching prizes at Columbia University and LSE. He coauthored numerous published research articles with practitioners and academics from different fields including Finance, Economics, and Operations Research.

Date
26 Jan 2022(Wednesday)
(HK Time)

Time
4:00pm – 5:00pm (HK Time)

Zoom
https://polyu.zoom.us/j/94604721799?pwd=ZTZrM25ranZBZWU5RUF0S3cvLzJxQT09

Meeting ID: 946 0472 1799
Passcode: 0126