Speaker: Dr. Jing Yao

Talk Title:

Convex Lower Bounds Approximation Method for Risk Aggregations with Applications in Option Pricing and Capital Allocation

Talk Abstract:

In this talk, I will briefly introduce an approximation method based on convex lower bounds for risk aggregation with some applications in finance and insurance. In particular, I shall talk about Asian option pricing, spread option pricing and capital allocation problem under risk additive models. Numerical results are presented to show that this approximation method is accurate, efficient and robust.

Speaker Bio:

Dr. Jing Yao is an assistant professor in MACS at Heriot Watt University. He holds Master degree in Actuarial Science and PhD degree in Applied Economics. He is also a research professor in Economics Faculty at Vrije Universiteit Brussel (Belgium), an associate researcher in the Actuarial Research Center of Haifa University (Israel), and a guest associate professor in UESTC (China). His research topics are in the field of actuarial and financial mathematics with current emphasis on the financial valuation techniques, portfolio selection methods, high dimensional risk measures and modeling of stochastic dependence etc. His research work shares common interests with industry and practical applications such as simulation methods, model risk, correlation stress testing and investment performance measures.