统計科學研究所

INSTITUTE OF
STATISTICAL SCIENCE

SEMINAR STAT.AS

Seminar

Title：New Distortion Risk Measures and Their Estimation

Speaker：Prof. Jungsywan Hwang Sepanski (黃鐘璇教授)
(Department of Statistics, Actuarial & Data Sciences, Central Michigan University)

Time：10:30 ~ 12:00, Monday, May 8, 2023

Place：Auditorium, B1F, Institute of Statistical Science

Abstract

We present new frameworks to construct new distortion functions. A distortion maps the unit interval to the unit interval, which is the range of a cumulative distribution function. The proposed frameworks are based on transformations of an existing non-negative random variable whose distribution function, named the generating distribution, may contain more than one parameter. Coherency of the resulting risk measures is ensured by restricting the parameter space on which the distortion is concave. Examples of the generating distributions include exponentiated exponential and Gompertz distributions. Graphical and numerical results allow us to show risk attitudes reflected by varying parameter values. We then propose a simple estimator of risk measures and conduct simulations to study the performance of the proposed estimator.

※Online live streaming through Cisco Webex will be available.

※ The tea reception will be held at 10:10.