


复旦大学数学科学学院
数学综合报告会

报告题目：Random distortion risk measures

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地点：光华楼东主楼 1801

报告摘要：

We present one type of random risk measures, named as the random distortion risk measure. The random distortion risk measure is a generalization of the traditional deterministic distortion risk measure by randomizing the deterministic distortion function and the risk distribution respectively, where a stochastic distortion is introduced to randomize the distortion function, and a sub-sigma-algebra is introduced for illustrating the influence of the known information on the risk distribution. Some theoretical properties of the random distortion risk measure are provided. Based on some stochastic axioms, the representation theorem of the random distortion risk measure is proved. For considering the randomization of a given deterministic distortion risk measure, some families of random distortion risk measures are introduced with the stochastic distortions constructed from a Poisson process, a Brownian motion and a Dirichlet process respectively. And a numerical analysis is carried out for showing the influence of the stochastic distortion and the sub-sigma-algebra. It is a joint work with Xin ZANG, Fan JIANG and Chenxi XIA.

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