STOCHASTIC ORDERINGS FOR SET-VALUED RISK MEASURES

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TOPIC

We introduce and analyze from an axiomatic point of view an extension to the set-valued scenario of the maximal correlation risk measure as defined by Burgert and Rüschendorf (2006). Furthermore, we present the notion of stochastic ordering for random vectors, utilizing the upper expectation operator - introduced in Hamel and Heyde (2021) - in conjunction with extensive classes of multidimensional functions. We then explore the consistency of such stochastic orderings for appropriate set-valued risk measures. These measures resemble the maximal correlation risk measure, offering flexibility regarding adherence to all the axioms of a portfolio aggregator and a proper set-valued risk measure. A remarkable example within this category is represented by law-invariant set-valued risk measures, such as the set-valued distortion risk measure as defined, for example, in Chen and Hu (2019).

The in-person presentation will be held in Room 3 Padiglione Morselli
Scan the QR code to join the seminar online in MS Teams

Padiglione Morselli, Via Ottorino Rossi 9, Varese