C. Munari: Multi-utility representations of incomplete preferences induced by set-valued risk measures

We establish a variety of numerical representations of preference relations induced by set-valued risk measures. Because of the general incompleteness of such preferences, we have to deal with multi-utility representations. We look for representations that are both parsimonious (the family of representing functionals is indexed by a tractable set of parameters) and well behaved (the representing functionals satisfy nice regularity properties with respect to the structure of the underlying space of alternatives). The key to our results is a general dual representation of set-valued risk measures that unifies the existing dual representations in the literature and highlights their link with duality results for scalar risk measures.