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Characterizations of smooth ambiguity based on continuous and discrete data. (English)

Summary: In the Anscombe-Aumann setup, we provide conditions for a collection of observations to be consistent with a well-known class of smooth ambiguity preferences [P. Klibanoff et al., Econometrica 73, No. 6, 1849–1892 (2005; Zbl 1151.91372)]. Each observation is assumed to take the form of an equivalence between an uncertain act and a certain outcome. We provide three results that describe these conditions for data sets of different cardinality. Our findings uncover surprising links between the smooth ambiguity model and classic mathematical results in complex and functional analysis.

MSC:
91B06 Decision theory
46N10 Applications of functional analysis in optimization, convex analysis, mathematical programming, economics
44A60 Moment problems
91G10 Portfolio theory

Keywords:
smooth ambiguity; variational preferences; revealed preference; completely monotone functions; Afriat inequalities; moment problem

Full Text: DOI Link

References: