A Logical and Algebraic Approach to Imprecise Probability.

Short summary: The purpose of this talk is to extend de Finetti's Dutch Book Theorem to non-reversible betting game on arbitrary subset of an MV-algebra. After recalling the notion of state (the analogue of a probability measure for an MV-algebra), we introduce imprecise states both axiomatically and operationally in terms of bets. Lastly, we define a logic for imprecise states which allows us to give a purely logical characterization of coherence of books.