انجمن منطق ایران
Iranian Association for Logic

Probability (Modal) Logic

Reihane Zoghifard
Institute for Research in Fundamental Sciences (IPM)

Abstract: Type spaces introduced by Harsanyi (1967-68) are one of the major tools for studying games with incomplete information played by Bayesian players. In a type space, each agent's beliefs are represented by a probability measure over the space. Probability (modal) logic is a framework for specifying and analyzing properties of this kind of probability structures, in which bounds on probability are treated as modal operators. The strong completeness does not hold for probability logic over the class of countably additive type spaces but it is strongly complete with respect to the class of finitely additive type spaces. However, the compactness property does not hold for none of these classes of type spaces.

In this talk, we review some of different axiom systems proposed for probability logic and then we investigate some model theoretic properties of type spaces and introduce some fragments of this logic with the compactness property.

Monday, August 19, 2019, 16:00-17:00
Amirkabir University of Technology
Room 311