

Probability Propositional Calculus with Doubled Nonstandard Semantics.

Ivan Kramosil

Abstract: The classical propositional language is evaluated in such a way that truthvalues are subsets of the set of all positive integers. Such an evaluation is projected in two different ways into the unit interval of real numbers so that two real-valued evaluations are obtained. The set of tautologies is proved to be identical, in all the three cases, with the set of classical propositional tautologies, but the induced evaluations meet some natural properties of probability measures with respect to nonstandard supremum and infimum operations induced in the unit interval of real numbers.

Keywords:

AMS Subject Classification: 28E;