Standardness as an invariant formulation of independence.


Summary: The notion of a homogeneous standard filtration of \(\sigma\)-algebras was introduced by the author in 1970. The main theorem asserted that a homogeneous filtration is standard, i.e., generated by a sequence of independent random variables (is Bernoulli), if and only if a standardness criterion is satisfied. The author has recently generalized the notion of standardness to arbitrary filtrations. In this paper we give detailed definitions and characterizations of Markov standard filtrations. The notion of standardness is essential for applications of probabilistic, combinatorial, and algebraic nature. At the end of the paper we present new notions related to nonstandard filtrations.

MSC:

28A05 Classes of sets (Borel fields, \(\sigma\)-rings, etc.), measurable sets, Suslin sets, analytic sets

Keywords:

filtration; standardness; intrinsic metric; virtual metric space with measure

Full Text: DOI

References:


This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.