

STATISTICAL CAUSALITY AND MEASURABLE SEPARABILITY OF σ -ALGEBRAS

Dragana Valjarević^{a,*}, Ana Merkle^b

^a*University of Pristina in Kosovska Mitrovica, Faculty of Sciences and Mathematics,
Department of Mathematics, Serbia*

^b*University of Belgrade, Faculty of Mathematics, Serbia*

Abstract

In this paper we consider a concept of statistical causality, based on Granger's definition of causality and analyze the relationships between given causality and the concept of measurable separability of σ -algebras. The measurable separability of σ -algebras is defined in Florens et al. (1990). We give a generalization of that definition for flows of information represented by filtrations and consider some properties of measurable separability that are directly connected to the concept of statistical causality. Also, we apply some of this results on Bayesian experiment.

Keywords: Filtration, causality, measurable separability, Bayesian experiment.

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*Corresponding author: +381 11 2497676
Email addresses: dragana.valjarevic@pr.ac.rs (Dragana Valjarević),
ana_merkle@matf.bg.ac.rs (Ana Merkle)