STATISTICAL CAUSALITY AND MARTINGALE REPRESENTATION PROPERTY

Dragana Valjarević dragana_stan@yahoo.com
University in Kosovska Mitrovica, Serbia
Coauthors: Ljiljana Petrović

Abstract

The paper considers a statistical concept of causality in continuous time between filtered probability spaces which is based on Granger's definitions of causality. Then, the given causality concept is connected with a martingale representation property for local martingales and semimartingales. In addition we give application of these results to weak solutions of stochastic differential equations and martingale problem.

AMS Classification: 60G44; 60H10.