Some Generalization of Granger's Causality in Continuous Time

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Abstract

The paper introduces a statistical concept of causality in continuous time in filtered probability spaces which is based on Granger's definitions of causality (see Econometrica 37, 1969). Than we give alternative characterization of causalitu using σ-fields associated by stopping times and give relations betweem martingale property and causality.

Also, we link Granger's causality with the concept of adapted distribution.

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