

FAKULTÄT FÜR MATHEMATIK, INFORMATIK UND NATURWISSENSCHAFTEN

Fachbereich Mathematik

Kolloquium über Mathematische Statistik und Stochastische Prozesse

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An Introduction to Count Time Series Analysis

Abstract:

The talk starts with a few data examples to illustrate some typical features of real count time series. Since models designed for real-valued time series cannot be used in the count-data case, tailor-made models are required. During the last three decades, there was large research activity in developing models for count time series, and the talk gives a survey about some of these models. In particular, approaches are presented that can be understood as counterparts to the conventional ARMA models: the thinning-based INARMA models, and the INGARCH models relying on a regression-like approach. But also more general regression models as well as hidden Markov models for counts are briefly presented. The talk also touches statistical issues with respect to the fitting of count-data models.

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