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30.07.2018

## Einladung

#### zum

# Oberseminar "Stochastik"

am **Donnerstag,** dem **20.09.2018**, um **14.45 Uhr** im Seminarraum 2 (Raum 204) des Mathematischen Instituts, Weyertal 86-90, 50931 Köln.

Es spricht

### Prof. Dr. Zuzana Prášková (Karls-Universität Prag)

zum Thema:

#### Resampling methods in change point analysis

Abstract: Critical values of change point tests in linear models are usually based on the limit distribution of the respective test statistics under the null hypothesis. However, the limit distribution is very often a functional of some Gaussian processes depending on unknown quantities that cannot be easily estimated. In many situations, convergence to the asymptotic distribution is rather slow and the asymptotic critical values are not well applicable in small and moderate size samples. It has appeared that resampling methods provide reasonable approximations for critical values of test statistics for detection changes in location and regression models. Some of them will be reviewed in the talk. Dependent wild bootstrap is a resampling procedure for dependent data that has been developed as an alternative to existing block-bootstrap methods with the aim to mimic the dependency structure of the analyzed data not only in the blocks but in the whole sample. A variant of this method is proposed to approximate critical values of test statistics for detection a change in a linear regression model with dependent regressors and errors as well as in a dynamic panel data model.

Alle Interessenten sind herzlich eingeladen.

Die Dozenten der Stochastik