SEMINÁRIO CONJUNTO

PROJETOS TEMÁTICOS
MODELOS DE REGRESSÃO E APLICAÇÕES
E
SÉRIES TEMPORAIS, ONDALETAS E DADOS FUNCIONAIS

LOCAL: **IME-USP, Auditório Antonio Gilioli Bloco A**

DATA: **26 de maio de 2017**

HORÁRIO: **11h00**

AN INAR(1) PROCESS FOR MODELING COUNT TIME SERIES WITH EQUIDISPERSION, UNDERDISPERSION AND OVERDISPERSION
Marcelo Bourguignon (Departamento de Estatística, UFRN)

We present a novel first-order non-negative integer-valued autoregressive model for stationary count data processes with Bernoulli-geometric marginals based on a new type of generalized thinning operator. It can be used for modeling time series of counts with equidispersion, underdispersion and overdispersion. The main properties of the model are derived, such as probability generating function, moments, transition probabilities and zero probability. The maximum likelihood method is used for estimating the model parameters. The proposed model is fitted to time series of counts of iceberg orders and of cases of family violence illustrating its capabilities in challenging cases of overdispersed and equidispersed count data.

Joint work with: Christian H. Weiß- Department of Mathematics and Statistics, Helmut Schmidt University, Hamburg, Germany.