

SEMINÁRIOS
SÉRIES TEMPORAIS, ONDALETAS E DADOS
FUNCIONAIS

LOCAL: IME, USP, Sala 247, Bloco A

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STOCHASTIC GENERALIZED AUTOREGRESSIVE SCORE MODELS AND
APPLICATIONS TO STOCHASTIC VOLATILITY
Marcelo M. Taddeo (IME-USP)

Generalized Autoregressive Score (GAS) models are a class of observation driven time series with time varying parameters whose state equation depends on the scaled score function of the predictive likelihood. We propose here a variant of such models, referred to as Stochastic Generalized Autoregressive Score (SGAS) models, which incorporate a stochastic error in the updating equation. The insertion of an innovation in the state equation results in a mixed observation/parameter driven model. Besides that, we illustrate its applications by studying the volatility of log-returns of financial assets under new specifications of stochastic volatility models as provided by the suggested framework.