SEMINÁRIOS

SÉRIES TEMPORAIS, ONDALETAS E DADOS FUNCIONAIS

Local: **IME, USP, Sala 132 Bloco A**

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Horário: **15h30**

Stable Randomized Generalized Autoregressive Conditional Heteroskedastic Models

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A very well known and widespread class in the field of time series are the GARCH models with the aim of describing the volatility. The class of GARCH models are heavy-tailed distributed, with time-dependent conditional variance. Also, we can model clustering of volatility. Despite the good properties mentioned previously, GARCH models are built in a way that imposes some limits on the heaviness of the tails of their unconditional distribution. The class of Randomized Generalized Autoregressive Conditional Heteroskedastic (R-GARCH) is a generalization of the GARCH which adds to the volatility also a term that is random. In fact, it is assumed that this term has stable distribution. Clearly the R-GARCH models includes the class of GARCH models. In this paper, we propose the class of SR-GARCH models, where both returns as volatility have stable distribution. Theoretical results, estimation methods and empirical analysis of SR-GARCH models are the focus of this work. We present the indirect inference method to estimate the SR-GARCH, some simulations and an empirical application.