SEMINÁRIOS

SÉRIES TEMPORAIS, ONDALETAS E DADOS FUNCIONAIS

LOCAL: **IMECC, Unicap, Sala 321**

DATA: **17 de setembro de 2015**

HORÁRIO: **15h45**

Forecasting intraday VaR of an equity portfolio
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The main task of this work is to predict, for the next 15 minutes, the Value-at-Risk (VaR) of a equally-weighted portfolio composed by four equities negotiated in brazilian market: Petrobras (PETR3), Vale do Rio Doce (VALE5), Banco do Brasil (BBAS3) and Embraer (EMBR3). The dataset consists of transation prices of each equity recorded every 15 minutes when the market is open, from January 02, 2008 to December 30, 2011. For each time series it is fitted a Multiplicative Component GARCH (MCGARCH), and the dependence among them and VaR forecast is modeled by a D-Vine Pair Copula. Although it has problems to assess if univariate models can capture properly the autocorrelation structure of squared standardized residuals, the methodology presents good results for VaR backtesting.

(joint work with Mauricio Zevallos)