ISF WORKSHOP:

Forecasting Correlations: a state of the art for risk management

Accurate forecasts of financial returns correlations are key inputs in portfolio optimization, hedging and risk management. Quantifying the level of risk concentration is crucial for risk management. Ignoring the interdependences between the portfolio components could lead to wrong allocation or hedging strategies in front of a wrong picture of aggregated risk. Not surprisingly, in the last ten years, several correlation models have been proposed in the literature. Previous developments on time-varying correlations include the constant conditional correlation (CCC) model of Bollerslev (1990) , where the volatilities of each asset are allowed to vary through time but the correlations are time invariant, the RiskMetrics model by JPMorgan (1994) and the DECO model by Engle and Kelly (2012) , where pairwise correlations are assumed equal at a point in time, whilst being time varying. Recent developments have addressed correlation forecasting in the context of high frequency data and component models. The aim of this workshop is to introduce participants to the most important models used by practitioners and academics to forecast correlations of commodity returns. Starting from the CCC and DCC models and their estimation and forecasting in EViews, the workshop will illustrate the most recent DCC-MIDAS models of correlations and the high frequency realized covariance models. Participants will leave with an in depth understanding of the different models, the ability to compare their forecasting performance and to select the best model or the best forecast combination between models to address their research question.