Statistics Seminar Series

Session 1, 2008

Valentyn Panchenko

The University of New South Wales, Sydney

Partial Likelihood Ratio-Based Scoring Rules for Evaluating Density Forecasts in Tails

We propose and evaluate several new scoring rules based on (partial) likelihood ratios for comparing the out-of-sample accuracy of competing density forecasts. These scoring rules are particularly useful when the main interest lies in measuring the predictive accuracy over a specific region of the density, such as the left tail in financial risk management. By construction, conventional scoring rules based on KLIC or censored normal likelihood tend to favor density forecasts with more probability mass in the region of interest, rendering the resulting tests biased towards such densities. Our novel scoring rules based on partial likelihood do not suffer from this problem, as illustrated by means of Monte Carlo simulations and an empirical application to daily S & P 500 index returns.

About the speaker: Dr Valentyn Panchenko is Lecturer at The Australian School of Business, UNSW. His research interests include financial econometrics and time series analysis, dependence measures and copulae, non-parametric and semi-parametric statistics, and agent-based models.

Time: 4pm, Friday, 4th April
Location: Room 4082, Red Centre

Please join us after the seminar for wine and cheese in the staffroom.

Seminar co-ordinator: Spiridon Penev
e-mail: S.Penev@unsw.edu.au