



KATHOLIEKE UNIVERSITEIT LEUVEN

## Statistics and Econometrics Seminar

Joint organization by

ORSTAT, Faculty of Business and Economics and the Statistics Research Group,

Faculty of Science

Leuven Statistics Research Center

**Peter Exterkate**

Tinbergen Institute, Erasmus University Rotterdam, Netherlands

### “Forecasting the yield curve in a data-rich environment using the factor-augmented Nelson-Siegel model”

Thursday, February 24, 2011

12.00–13.00h

Location: Room HOG 03.101, Naamsestraat 69, Leuven.

Supporting research project: GOA-project 2007/04

**Abstract.** Various ways of extracting macroeconomic information from a data-rich environment are compared with the objective of forecasting yield curves using the Nelson-Siegel model. Five issues in factor extraction are addressed, namely, selection of a subset of the available information, incorporation of the forecast objective in constructing factors, specification of a multivariate forecast objective, data grouping before constructing factors, and selection of the number of factors in a data-driven way. Our empirical results show that each of these features helps to improve forecast accuracy, especially for the shortest and longest maturities. The data-driven methods perform well in relatively volatile periods, when simpler models do not suffice. This is joint work with D. van Dijk, C. Heij, and P.J.F. Groenen.