IRTG 1792 Short Course

Jean-David Fermanian
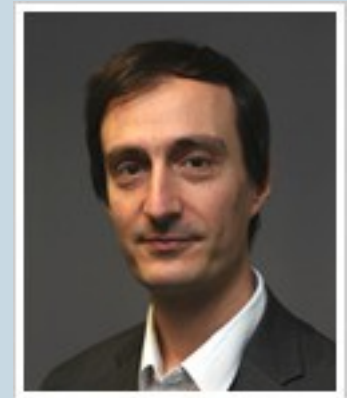
Time-Varying Copulae

Copulae are now a standard tool for the modelling of "static" independent random vectors. Beside this analysis of cross-sectional dependence, the use of copulae to describe dependent data (univariate or multivariate time series) is an active field of research currently. The goal of this course will be to provide an overview of the main corresponding approaches in the literature, and of the open issues and practical problems that can be met.

✔ General way of introducing dependence among series of random vectors: conditional copulae and pseudo-copulae
✔ Copulae representation of Markov processes and diffusion processes
✔ Some flexible copula-based time series models in Econometrics: copula-GARCH, the Chen and Fan's approach
✔ Some statistical challenges: goodness-of-fit tests, detection of breaks in a dependence structure, dynamic vines, etc.

Jean-David Fermanian obtained his PhD of Finance and Statistics at École normale supérieure, Paris in 1994. Now he is a Professor at the Center for Research in Economics and Statistics (CREST). His fields of research interests include financial econometrics, dependence modelling, risk management and credit derivatives.

26.-27.10.2015 | 10:00-12:00

Room 401, SPA1

26.10.2015 | 14:00-16:00

Room 23, SPA1

http://irtg1792.hu-berlin.de