

Finanzökonomisches Masterseminar

Sommersemester 2012

Proposed Topics:

1. Solvency II

Supervisor: Christian Groll

References: [7]

2. Time-Varying copulas

Supervisor: Christian Groll

References: [6]

3. Gradient Boosting

Supervisor: Nikolay Robinzonov

References: see handout

4. Splines for financial volatility

Supervisor: Nikolay Robinzonov

References: [4]

5. Heterogeneous Autoregressive Volatility Models

Supervisor: Andreas Fuest

References: [3, 2]

6. Pairs trading

Supervisor: Andreas Fuest

References: see handout

7. Vine-copula

Supervisor: Fabian Spanhel

References: [1, 5]

General Requirements for Grading:

1. writing a term paper (at least 50,000 letters)
2. presenting the term paper at the seminar (not longer than 45 minutes)
3. complete attendance at both workshop and research seminar (Tuesday, 18:00 - 20:00 h. Ludwigstr. 33, room 144)

Modus Operandi:

1. Working language is German or English (depending on the needs of the participants).
2. Questions regarding a specific topic are to be posed to the responsible supervisor.
3. Credit points, grading, and the above “general requirements” may be adapted to students’ requests.
4. This seminar will be organized as a workshop taking place presumably in mid-July 2012.
5. The allocation of topics and additional organizational matters will be addressed and fixed during the preparatory meeting on October 20, 2011 (at 14h) in room 144 (Ludwigstr. 33).
6. After the preparatory meeting on April 19, every participating student has to send a priority list of her/his four most favored topics to Christian Groll. Submission deadline for this priority list is April 26, 2012, 11:00 pm.
7. One week after topics have been allocated to participating students, they have to meet with the corresponding supervisor.
8. Four weeks after this first meeting, every student has to send a preliminary version of her/his table of contents including text with some extra details.
9. Submission deadline for term papers expires one week before the workshop.

References

- [1] Kjersti Aas, Claudia Czado, Arnoldo Frigessi, and Henrik Bakken. Pair-copula constructions of multiple dependence. *Insurance: Mathematics and Economics*, 44(2):182–198, 2009.
- [2] F. Corsi. A simple approximate long-memory model of realized volatility. *Journal of Financial Econometrics*, 7(2):174–196, 2009.
- [3] F. Corsi, S. Mittnik, C. Pigorsch, and U. Pigorsch. The volatility of realized volatility. *Econometric Reviews*, 27(1-3):46–78, 2008.
- [4] Francesco Audrino and Peter Bühlmann. Splines for Financial Volatility. *Journal of the Royal Statistical Society, Series B: Statistical Methodology*, 71(3):655–670, 2009.
- [5] Ingrid Hobaek Haff, Kjersti Aas, and Arnoldo Frigessi. On the simplified pair-copula construction - Simply useful or too simplistic? *J. Multivar. Anal.*, 101(5):1296–1310, 2010.
- [6] Hans Manner and Olga Reznikova. A Survey on Time-Varying Copulas: Specification, Simulations, and Application. *Econometric Reviews*, 31(6):654–687, 2012.
- [7] Stefan Mittnik. Solvency II Calibrations: Where Curiosity Meets Spuriousity: Working paper, 2011.