



## Announcement WiSe 2016/2017

### Advanced Seminar

#### Selected topics on investment, option pricing and FAVAR models

Prof. Dr. R. Zagst, Prof. Dr. K. Glau, PD Dr. A. Min

**Area/Module:** Mathematical Finance / MA6015

**Content:** This seminar is based upon a list of recent papers on different areas of investment, option pricing and factor-augmented vector autoregressive (FAVAR) models. Each participant presents one of the selected papers and discusses subsequent developments in the respective field. This provides a broad overview to all participants on the different fields, recent aspects, and historical development of the topic.

**Continued next Semester:** No

**Audience:** max. 8 Master students

**Prerequisite:** MA3702 (Continuous Time Finance), MA4706 (Portfolio Analysis)

**Literature:** Most preprints are available on the web for free.

1. D. Filipovic, R. Kremlehner and A. Muermann. (2013). **Optimal investment and premium policies under risk shifting and solvency regulation.** Working Paper.
2. D. McLeisch and R. Reesor. (2003). **Risk, entropy, and the transformation of distributions.** North American Actuarial Journal, 7(2), 128-144.
3. **A benchmark method for efficient option pricing:**  
Fang, F. and Oosterlee, C.W. (2008). **A novel pricing method for European options based on Fourier-Cosine series expansions,** *SIAM Journal on Scientific Computing*, 31(2), 826-848.
4. **New ideas for option pricing:**  
Pachón, R. (2015). **Numerical pricing of European options with arbitrary payoffs,** Available at SSRN 2712402 (2016).
5. **How to incorporate counterparty default in option prices?** D. Brigo and M. Masetti. Risk neutral pricing of counterparty risk. In M. Pykhtin, editor, **Counterparty Credit Risk Modeling: Risk Management, Pricing and Regulation.** Risk Books, 2005.
6. L. Bork. (2015). **A large-dimensional factor analysis of the Federal Reserve's large-scale asset purchases.** Working Paper.
7. J. Bai, K. Li and L. Lu. (2014). **Estimation and inference of FAVAR models.** Available at MRPA Archive.
8. E. Girardina and Z. Moussac. (2011). **Quantitative easing works: Lessons from the unique experience in Japan 2001–2006.** Journal of International Financial Markets, Institutions & Money, 21, 461–495.

**Certificate:** 3 CP

**Seminar information:** For further information on the preliminary meeting to the seminar (Seminarvorbereitung) and etc. please visit our homepage at <https://www.mathfinance.ma.tum.de/en/home/>