Announcement WiSe 2017/2018

Advanced Seminar
Selected topics on modeling of term structures and pricing of interest rate derivatives
Prof. Dr. R. Zagst, Prof. Dr. M. Scherer

Area: / Modulnr.:   Mathematical Finance/ MA6015

Content: This seminar is based upon a list of recent papers on different areas of modeling of term structures and pricing of interest rate derivatives. 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. 6 master students

Prerequisite: MA3702 Continuous Time Finance, MA3703 Fixed Income Markets.

Literature: **Beyna, C. Chiarella & B. Kang (2012):** Pricing Interest Rate Derivatives in a Multifactor HJM Model with Time Dependent Volatility, Research Paper Series 317, Quantitative Finance Research Centre, University of Technology, Sydney, pp. 1-64
Teil I: Theorie (Beschreibung der Modellklasse und Herleitung der analytischen Preisformeln)
Teil II: Numerische Umsetzung (Kalibrierung, Quasi Monte Carlo Simulation und PDE Valuation)
F.X. Diebold and C. Li (2006): Forecasting the term structure of government bond yields, Journal of Econometrics 130, 337-364.
D. Sim and M. Ohnishi (2015): A modified arbitrage-free Nelson Siegel model: An alternative affine term structure model of interest rates, Asia-Pacific Financial Markets 22, 53-74.
Hull & White (2014): „A Generalized Procedure for Building Trees for the Short Rate and its Application to Determining Market Implied Volatility Functions"
Cristian Homescu (2011): „Implied volatility surface: construction methodologies and characteristics"

Certificate: 3 CP

Seminar Information: The preliminary meeting to the Seminar (Seminarvorbesprechung) takes place on **Thursday, July,13 2017 at 16:00** in room 2.01.10, Parkring 11, Garching-Hochbrück