

Announcement WiSe 2017/18

Lecture in Mathematical Finance

Fixed Income Markets

PD Dr. Aleksey Min

Area: / Modulnr.: Mathematical Finance / MA3703

Course Structure: Lecture: 2h Exercises: 1h

Content: Coupon Bonds, Forward Agreements on Coupon Bonds, Modeling of Fixed Income Markets, Pricing of Contingent Claims, Short-Rate Models, Heath-Jarrow-Morton Framework, Multi-Factor Models, LIBOR Market Model, Interest-Rate Derivates (Futures, Swaps, Caps, Floors, Options), Management of Interest Rate Risk.

Audience: MSc Mathematics, Mathematical Finance and Actuarial Science

Prerequisite: MA3702 (Continuous Time Finance),
MA4405 (Stochastic Analysis)

Literature: **R.Zagst (2002):** Interest Rate Management, Springer Finance
D. Brigo and F. Mercurio (2001): Interest-Rate Models: Theory and Practice, Springer Finance
D. Filipovic (2009): Term-Structure Models, Springer Finance
J.C. Hull (2000): "Options, Futures and Other Derivatives", Prentice-Hall
M. Musiela and M. Rutkowski (1997): Martingale Methods in Financial Modelling, Vol. 36, Springer
P. Wilmott (2001): Introduces Quantitative Finance, John Wiley & Sons, LTD Chichester
R. Rebonato (1996): Interest-Rate Option Models, John Wiley & Sons
R.Rebonato (2002): Modern Pricing of Interest-Rate Derivatives:The LIBOR Market Model and beyond, Princeton University Press

Certificate: Exam, 5 CP

Location/ Time: see TUMonline