

Announcement WiSe 2025/26

Lecture in Mathematical Finance

Fixed Income Markets

Prof. Dr. Rudi Zagst

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, Multi-Curve Models.

Audience: MSc Mathematics, Mathematical Finance and Actuarial Science, Finance and Information Management

Prerequisite: MA3702 (Continuous Time Finance)

Literature: **R. Zagst (2002):** Interest Rate Management, Springer Finance
D. Brigo and F. Mercurio (2006): Interest-Rate Models: Theory and Practice, Springer Finance
D. Filipovic (2009): Term-Structure Models, Springer Finance
J.C. Hull (2015): Options, Futures and Other Derivatives, 9th Edition, Pearson Studium
Z. Grbac and W.J. Runggaldier (2015): Interest Rate Modeling: Post-Crisis Challenges and Approaches, SpringerBriefs in Quantitative Finance
M. Musiela and M. Rutkowski (2005): Martingale Methods in Financial Modelling, Vol. 36, Springer

Certificate: Exam, 5 CP

Location: see TUMonline

Lecture/Exercises: see TUMonline