

# Announcement WiSe 2023/24

## Lecture in Mathematical Finance

### Fixed Income Markets

Prof. 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, Multi-Curve Models.
- Audience:** MSc Mathematics, Mathematical Finance and Actuarial Science
- 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, 9<sup>th</sup> 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