



Announcement SoSe 2018 Lecture in Mathematical Finance

Continuous Time Finance (FIM)

Prof. Dr. Rudi Zagst

Area: / Modulnr.:	FIM – Core course / MA9973
Course Structure:	Lecture: 2h Exercises: 1h Programming Exercises: Voluntary
Content:	Stochastic processes, Itô calculus, financial markets in continuous time, no-arbitrage and completeness, pricing and hedging of contingent claims, Black-Scholes model and generalizations, pricing of exotic options, stochastic volatility and jump models, numerical methods; voluntarily: implementation of financial models (Monte Carlo simulation, Fourier pricing, etc.)
Audience:	MSc Finance & Information Management
Prerequisite:	MA9972 - Discrete Time Finance MA4405 - Stochastic Analysis/Quantitative Methods in Finance (recommended)
Literature:	Albrecher, Binder & Mayer (2009): Einführung in die Finanzmathematik, Birkhäuser S.E. Shreve (2004): Stochastic Calculus for Finance II: Continuous-Time Models, Springer Finance J.C Hull (2012): Options, Futures and other Derivative, 9 th ed., Pearson R. Zagst (2002): Interest Rate Management, Springer Finance N.H. Bingham und R. Kiesel (2004): Risk-Neutral Valuation: Pricing and Hedging Financial Derivatives, Springer Finance M. Musiela und M. Rutkowski (2005): Martingale Methods in Financial Modelling Vol. 36, Springer
Certificate:	Written or oral examination, 4 CP
Time:	T.B.A.
Location:	University of Augsburg