Forschungsgruppe Finanz- und Versicherungsmathematik
TUM School of Computation, Information and Technology
Technische Universität München

Announcement Summer Term 2023

Advanced Seminar

Dynamic Portfolio Optimization

Prof. Dr. Rudi Zagst & Michel Kschonnek

Area/ Module ID: Mathematical Finance/ MA6015

Content: This seminar is based upon a list of recent papers on different areas of dynamic portfolio optimization and investment strategies. After a brief introductory presentation by the lecturers, 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 topics.

Audience: Max. 8 M.Sc. students.

Prerequisite: MA3408 (Financial Mathematics 2) or equivalent.

Literature:

H. Wang, X. Y. Zhou (2020): Continuous-time mean–variance portfolio selection: A reinforcement learning framework
T. Björk, M. Khapko, A. Murgoci (2017): On time-inconsistent stochastic control in continuous time
R. Korn, H. Kraft (2004): On the Stability of Continuous-Time Portfolio Problems with Stochastic Opportunity Set
R. Korn, H. Kraft (2002): A Stochastic Control Approach to Portfolio Problems with Stochastic Interest Rates
C. Bernard, M. Kwak (2016): Dynamic preferences for popular investment strategies in pension funds
M. J. Brennan, Y. Xia (2002): Dynamic Asset Allocation under Inflation
A. Cherny, D. Madan (2009): New Measures for Performance Evaluation
M. Musiela, T. Zariphopoulou (2010): Initial Investment Choice and Optimal Future Allocations under Time-Monotone Performance Criteria
R. Zagst, J. Kraus (2011): Stochastic dominance of portfolio insurance strategies
R. Zagst, J. Kraus, P. Bertrand (2019): Option-Based performance participation
V. DeMiguel, L. Garlappi et al. (2009): A Generalized Approach to Portfolio Optimization: Improving Performance by Constraining Portfolio Norms

Certificate: Presentation, 3 CP

Lecture/Exercises: see TUMonline/Moodle