Zentrum Mathematik
Lehrstuhl für
für Finanzmathematik

Technische Universität München

Announcement WiSe 2015/16
Advanced Seminar

Families of multivariate distributions

Prof. Dr. Matthias Scherer, PD Jan-Frederik Mai

Content: In this seminar we discuss interesting families of multivariate probability distributions that are not covered in typical introductory lectures on multivariate probability laws or copulas. These families either arise from a specific application or constitute a certain construction principle. Depending on the considered family, the investigation involves the estimation, simulation, or calibration of the discussed probability law as well as its implementation in a real world application.

Continued next Semester: No

Audience: max. 6 Master students

Prerequisite: MA 5715 (Financial Engineering with Copulas) or
MA 5408 (Statistical Modelling with Copulas)

Literature:

H. Joe (1997): Multivariate Models and Dependence Concepts, Chapman and Hall/CRC, London.
J.-F. Mai, M. Scherer (2012): Simulating copulas: Stochastic models, simulation algorithms, and applications, Imperial College Press.
J.-F. Mai, M. Scherer (2014): Financial Engineering with Copulas Explained, Palgrave. A.J. McNeil, R. Frey, P. Embrechts (2005): Quantitative Risk Management, Princeton University Press, Princeton, New Jersey.
R.B. Nelsen (2006): An Introduction to Copulas, second edition, Springer, New York.

Certificate: 3 CP

Seminar information: For further information on the preliminary meeting to the seminar (Seminarvorbesprechung).