

Contact

Kerstin Weske
Institut für Mathematische Stochastik
Welfengarten 1, 30167 Hannover
Phone: +49 511 762 4249
Email: weske@stochastik.uni-hannover.de

Organizing Committee

Prof. Dr. Stefan Weber

Der Workshop wird von der Deutschen
Aktuarvereinigung als Weiterbildungs-
veranstaltung anerkannt.



Workshop on Insurance and Financial Mathematics

Mastering Dependence in Insurance:
Beyond Correlation and the
Bivariate Normal Distribution

Thursday

15 February 2018 14:15

Mastering Dependence in Insurance: Beyond Correlation and the Bivariate Normal Distribution

Various pricing principles and risk management methodologies used in the insurance industry have historically been developed under the convenient assumption of data (e.g., claims) being independent and identically distributed. Until today, when the issue of stochastic dependence is acknowledged, it is typically measured via Pearson's correlation and modeled as a multivariate normal distribution (I cannot resist pointing towards Solvency II). Both assumptions, however, are inadequate in many real-world situations. Hence, a prudent actuary is well advised to know about their limitations and to seek for alternatives.

In this workshop, we firstly scrutinize the limitations of Pearson's correlation, mostly to raise awareness of the many fallacies lurking around. Second, we pass on to introducing copulas as a methodological tool to measuring and modeling dependence. We address issues such as the efficient stochastic simulation and the estimation of a model. We emphasize problems arising in high-dimensional situations and discuss factor models as a possible solution (amongst others) for complexity reduction. Examples from insurance and finance are used to illustrate the concepts.

Speaker



Matthias Scherer is a professor of mathematical finance at the Technical University of Munich. His research interest comprises topics in actuarial science, financial mathematics, multivariate statistics, and the history of mathematics. He is an active member of the DGVFM. He has co-authored the books „Simulating copulas: Stochastic models, sampling algorithms, and applications“ and „Financial engineering with copulas explained.“

The workshop is free and open to all interested participants.
Please register for the workshop until 8 February 2018:
weske@stochastik.uni-hannover.de



Foto: Fotolia/ mapics

Location

Talanx AG
Riethorst 2
30659 Hannover

Thursday 15 February 2018 14:15

14:15 Reception
14:30 Mastering Dependence - Lecture 1
16:00 Coffee Break
16:30 Mastering Dependence - Lecture 2
18:00 Buffet