AKTUARVEREINIGUNG
ÖSTERREICHS

ÖSTERREICHISCHE GESELLSCHAFT
FÜR VERSICHERUNGSFACHWISSEN

UNIVERSITÄT
SALZBURG

Salzburg Institute of Actuarial Studies
5020 Salzburg, Hellbrunner Straße 34

Invitation to a Course on Fundamental Statistical Methods in Insurance

with emphasis on statistical challenges due to Solvency II

25th to 28th September 2013
Salzburg University

Lecturers:

Prof. Dr. Marcus Hudec
Department of Scientific Computing, Vienna University
Director of Data Technology, Vienna
Visiting professor at Salzburg University

Dr. Michael Schlögl
Head of Motor Insurance Department and Actuarial Department Non-Life
Wiener Städtische Versicherung AG – Vienna Insurance Group, Vienna
Visiting professor at Salzburg University

Dates:

Wednesday,	25th September,	9.00 – 17.30
Thursday,	26th September,	9.00 – 17.30
Friday,	27th September,	9.00 – 17.30
Saturday,	28th September,	9.00 – 12.30

Contents:

The current developments in insurance supervision – in particular standard formula and internal model of Solvency II – require not only a profound knowledge of the underlying stochastic and statistical methods, but also the sound justification of the assumptions made on the bases of the available statistical data.

The course covers all aspects of fundamental statistical methods in insurance required to become a fully qualified actuary according to the education syllabus of the International Actuarial Association and the core syllabus of Groupe Consultatif as well as according to the regulations of the Actuarial Association of Austria (AVÖ), which correspond to the regulations of the German Actuarial Association (DAV). For continuing professional development (CPD) the course counts as 21 hours. The emphasis will be on a practical and data oriented approach. A basic stochastic knowledge is sufficient. Please find the structure of the course below.

Course fees:

€ 594 without hotel accommodation, € 954 with accommodation from Tuesday to Saturday (4 nights) in the Castellani Parkhotel including breakfast. Lunches and coffee breaks are included in the fees for all participants.

Information:

For further information, please contact Sarah Lederer by e-mail (sarah.lederer@sbg.ac.at) with your telephone number. Your questions will be answered as soon as possible.

Registration: Please send the attached registration form by post or by e-mail (sarah.lederer@sbg.ac.at), or fax it to +43 662 8044 155, and arrange for the amount to be transferred (at no cost to the recipient) to the following account before 23rd August 2013. After this date registration with hotel accommodation is only possible upon request. The registration and payment deadline for participants who do not need accommodation is 6th September 2013.

Salzburg Institute of Actuarial Studies (SIAS)
IBAN: AT79 2040 4000 0001 2021 BIC: SBGSAT2S

Location: Faculty of Science, Lecture Hall 402
5020 Salzburg, Hellbrunner Straße 34

Course Structure

1 Introduction: Statistical methods with regard to Solvency II

a. Role of statistics under Solvency II
b. Influences on technical results
c. Key figures
d. Necessary techniques
e. Exercises and applications

2 Data analysis

a. Deriving information from data
b. Basics of descriptive statistics
c. Data visualisation
d. Introduction to probability theory
e. Measures of dependency
f. Exercises and applications

3 Stochastic risk models with special focus on their relevance for Solvency II

a. Empirical data and theoretical models
b. Probability distributions with specific relevance to insurance (claim count and claim size distributions)
c. Parameter estimation
d. Basic concepts in risk management
e. Risk models
f. Risk classification
g. Time series models
h. Standard formula and internal model of Solvency II
i. Experiences with Solvency II: calibration, validation, sensitivity, backtesting
j. Exercises and applications

4 Simulation techniques

a. Generation of random numbers
b. Monte Carlo method: concept/idea and applications under Solvency II
c. Markov processes and bonus-malus systems
d. What are the costs of a „claim for free“ or a „bonus saver“?
e. Exercises and applications