

*In Memoriam Teivo Pentikäinen 1917–2006*



# 39<sup>th</sup> ASTIN Colloquium Programme

**1–4 June • 2009**  
**Scandic Marina Congress Center**  
**Katajanokanlaituri 6**  
**Helsinki • Finland**



## Monday 1 June 2009

18.00–20.00 **Registration**  
Entrance Hall

18.00–21.00 **Welcome Reception**  
Entrance Hall

## Tuesday 2 June 2009

8.00–10.00 **Registration**  
Entrance Hall

9.00 **Formal Opening of the 39th ASTIN Colloquium**  
Europaea Hall

9.30 **Plenary 1**  
**In Honour of Teivo Pentikäinen: The Evolution of Internal Models in Non-life Insurance**  
*Jukka Rantala, Managing Director, Finnish Center for Pensions*  
*Chris Daykin, former Government Actuary of the UK*



10.30 **Refreshment break**

11.00 **Concurrent Session 1** Please attend Session 1A, 1B or 1C

### A **Session 1A • Internal Models** Europaea Hall

**The Use of Multi-year Internal Models for Management Decisions in Multi-year Risk Management**

*Dorothea Diers*

**Hierarchical Structures in Aggregation of Premium Risk for Insurance Underwriting**

*Nino Savelli and Gian Paolo Clemente*

**Various Faces of Risk Measures: Internal Model's Perspective**

*Min Wang and Lasse Koskinen*

### B **Session 1B • Asset Side Risks** Nautica Hall

**Reinsurance Credit Risk Modelling - DFA APPROACH -**

*Stephen Britt and Yuriy Kravavych*

**Decomposing Total Risk of a Portfolio into the Contributions of Individual Assets**

*Yukio Muromachi*

**Pricing of CDO's Based on the Multivariate Wang Transform**

*Masaaki Kijima, Shin-ichi Motomiya and Yoichi Suzuki*

### C **Session 1C • Risk Transfer, Reinsurance** Baltica Hall

**Evaluating the Impact of the Increase in Hurricane Frequency Using an Internal Model. A Simulation Analysis**

*Enrique de Alba and Ricardo Andrade*

**Optimal per Claim Reinsurance for Dependent Risks**

*Manuel Guerra and Maria de Lourdes Centeno*

**A Predictive Earthquake Model and Alternative Risk Transfer Techniques**

*Alexandros A. Zimbidis and Athanasios A. Pantelous*

12.30 **Lunch**  
Restaurant

13.30 **Plenary 2**  
Europaea Hall

**Post Claim Reserving Methods**

*Piet de Jong, Professor of Actuarial Studies, Macquarie University*

14.30 **Concurrent Session 2** Please attend Session 2A or 2B

## A Session 2A • General Actuarial Mathematics

Nautica Hall

### Change of Measures for Frequency and Severity

*Farrokh Guiahi*

### Model Uncertainty within the Tweedie Exponential Dispersion Family

*Daniel H. Alai and Mario V. Wüthrich*

## B Session 2B • Tariffication

Europa Hall

### Number of Accidents or Number of Claims?

#### An Approach with Zero-inflated Poisson Models for Panel Data

*Jean-Philippe Boucher, Michel Denuit and Montserrat Guillen*

### Rating without Data

#### – How to Estimate Loss Frequency of Loss-free Risks

*Michael Fackler*

15.30 **Refreshment break**

16.00 **Concurrent Session 3** Please attend Session 3A or 3B

## A Session 3A • General Actuarial Mathematics

Nautica Hall

### Modelling and Simulation of Dependence Structures in Non-life insurance with Bernstein Copulas

*Dietmar Pfeifer, Doreen Strassburger and Jörg Philipps*

### Scenario Analysis for a Multiperiodic Diffusion Model of Risk

*Vsevolod K. Malinovskii*

### Dynamic Financial Analysis (DFA) and Portfolio Management under Recent Stress Scenario

*Chitro Majumdar*

## B Session 3 B • Tariffication

Europa Hall

### Panjer Class United – One Formula for Poisson, Binomial and Negative Binomial Distribution

*Michael Fackler*

### Migrations of Heterogeneous Population of Drivers across Classes of a Bonus-Malus System

*Wojciech Otto*

### Strategic Planning, Risk Pricing and Firm Value

*Gary G. Venter*

18.30 **Helsinki City Reception**

Helsinki City Hall, Pohjoisesplanadi 11-13

## Wednesday 3 June 2009

09.00 **Plenary 3**  
Europa Hall

### Securitisation in Non-life Insurance

*Jean-Louis Monnier, Director, Swiss Re*

10.00 **Refreshment break**

10.30 **Plenary 4**  
Europa Hall

### Solvency II and Technical Provisions: Presentation and Discussion

*Annette Olesen, Partner, Actuarial & Insurance Solutions, Deloitte*

*Pasi Laaksonen, Director, Pohjola Insurance Company*

*On behalf of the Groupe Consultatif Actuariel Europeen*

12.00 **Lunch**  
Restaurant

13.00 **Departure for Excursion**  
Buses from Scandic Marina Congress Center

## Thursday 4 June 2009

09.00 **Plenary 5**  
Europaea Hall

### **Financial Crisis: Characteristics and Crisis Management**

*Seppo Honkapohja, Director of Bank of Finland and Professor at the University of Cambridge*

10.00 **Refreshment break**

10.30 **Concurrent Session 4** Please attend Session 4A or Session 4B

### **A Session 4A • Economic Factors in Non-life Insurance**

Nautica Hall

#### **Economic Factors and Solvency**

*Harri Nyrhinen*

#### **A Dynamic Analysis of the Underwriting Cycle in Non-life Insurance**

*Rocco Roberto Cerchiara and Fabio Lamantia*

#### **Surviving Downswing Phase of the Underwriting Cycle**

*Vsevolod K. Malinovskii*

### **B Session 4B • Claims Reserving**

Europaea Hall

#### **Stochastic Re-reserving in Multi-year Internal Models – An Approach based on Simulations**

*Dorothea Diers*

#### **Proxies**

*Glenn Meyers*

#### **A Three Dimensional Stochastic Model for Claim Reserving**

*Magda Schiegl*

12.00 **Lunch**  
Restaurant

13.00 **Plenary 6**  
Europaea Hall

### **Global warming: Risk of Change and also Chance for Insurance Industry**

*Peter Hoeppel, Director, Munich Re*

#### **Panel Discussion**

*Heikki Tuomenvirta, Senior Research Scientist, Finnish Meteorological Institute*

*Esko Kivisaari, Deputy Managing Director, Federation of Finnish Financial Services*

*Martti Pesonen, Director, Pohjola Insurance Company*

14.30 **Refreshment break**

15.00 **Concurrent Session 5** Please attend Session 5A or 5B

### **A Session 5A • Securitisation**

Nautica Hall

#### **An Analysis of the Market Price of Cat Bonds**

*Neil M. Bodoff and Yunbo Gan*

#### **Statistical Analysis of the Spreads of Catastrophe Bonds at the Time of Issue**

*Dimitris Papachristou*

#### **Equilibrium Pricing of Contingent Claims in Tradable Permit Markets**

*Masaaki Kijima, Akira Maeda and Katsumasa Nishide*

### **B Session 5B • Solvency II issues**

Europaea Hall

#### **Optimization of the Non-life Insurance Risk Diversification in Solvency II**

*Werner Hürlimann*

#### **Systematic Risk Modelisation in Credit Risk Insurance**

*Frédéric Planchet, Jean-Francois Decroocq and Fabrice Magnin*

#### **The Insurance Risk in the SST and in Solvency II: Modeling and Parameter Estimation**

*Alois Gisler*

**16.30**    **ASTIN General Meeting and Formal Close  
of the 39th ASTIN Colloquium**  
Europaea Hall

**19.00**    **Gala Dinner**  
Restaurant Boat House  
Boats leave Market Place at 18.30  
Dress code: smart casual



- 1** MARINA CONGRESS CENTER  
Katajanokanlaituri 6, 00160 Helsinki
- 2** SCANDIC HOTEL GRAND MARINA  
Katajanokanlaituri 7, 00160 Helsinki
- 3** WELCOME RECEPTION, HELSINKI CITY HALL  
Pohjoisesplanadi 11-13, 00170 Helsinki

- 4** BOAT TRANSFER TO GALA DINNER AT RESTAURANT BOATHOUSE  
Kauppatori, Lyypekinlaituri
- 5** RESTAURANT BOATHOUSE TOWN SIDE LIUSKASAARI PIER
- 6** RESTAURANT BOATHOUSE ON THE ISLAND
- 7** EUROHOSTEL  
Linnankatu 9, 00160 Helsinki