

# SOA ACTUARIAL SEMINAR

(Long Term, Auto and General Insurance)

Anticipated Agenda

[Print Agenda](#) 

## Monday, Nov. 16

7:45 – 8:30 a.m.

### Registration and Welcome Break

8:30 – 8:40 a.m.

### Welcome Remarks

8:40 – 9:40 a.m.

### Session 1 - Keeping Pace with Regulatory and Rating Agency Changes

**Presenter(s):** Sifang Zhang, Director, Analytics, AON Benfield

Introducing the evolving criteria - both regulatory change and rating agency change -- and discussing the impact on insurers' capital management and risk management with a focus on Asia.

A number of markets in Asia are reviewing and undergoing changes in their approach to insurance regulation and holistic risk management. Meanwhile, rating agencies are updating their methodologies while increasing influence in this region. Understanding these changes and their impact is important for the insurers' capital management as well as risk management.

9:40 – 10:25 a.m.

### Session 2 - Telematics Product Design

**Presenter(s):** David Dou, Senior Manager, KPMG

10:25 – 10:50 a.m.

### Coffee Break

10:50 – 11:50 a.m.

### Session 3 - Alternative Capital for Insurers and Reinsurers and the Current State of the Reinsurance Market

**Presenter(s):** Sie Liang Lau, Chief Actuary, Actuarial, SCOR Reinsurance Asia-Pacific Pte Ltd

With the global reinsurer capital hitting a new high of USD 600BN, more and more third party capital engagement is reflected. This calculation is a broad measure of capital available for insurers to trade risk with and includes both traditional and alternative forms of reinsurance capital.

In this presentation, we look at the developments of the interaction between insurers and the capital markets, the purpose of transferring insurance risk to the capital markets in addition to the traditional reinsurance markets. We also look at the optimization of the capital structure and strength and the alternative form of risk transfer, in the Asia Pacific context.

11:50 – 12:50 p.m.

**Lunch**

12:50 – 1:35 p.m.

**Session 4 - Cyber Risk Mitigation, Resilience and Risk Transfer**

**Presenter(s):** David Piesse, CRO, Guardtime

Cyber insurance underwriting is currently based on only privacy and perimeter protection whereas the mega data breaches are caused by data integrity breaches. The session will address the shift to look at data centric security and the affect on insurance and reinsurance.

The interest to the audience will be able to look at the intricacies of cyber risk and the risk management techniques to mitigate and recover form attacks using new cloud computing technologies that will change the face of policy wordings and new insurance policies. We will look at the stochastic modeling of cyber risk, cyber cat models and address ILS solutions in cyber risk.

1:35 – 2.20 p.m.

**Session 5 - Multivariate Erlang Mixtures with Insurance Applications**

**Presenter(s):** Jae-Kyung Woo, Assistant Professor, The University of Hong Kong

In an insurance company, there exist multiline contracts (referred as multiline insurance) which provide consolidated coverage for several types of risk exposures such as combining property (e.g. home) and casualty (e.g. automobile) risks in single policy. Similarly, reinsurance company serves multiline insurers by sharing the various types of risks which allow insurers to manage their risks and capitals more efficiently. To appropriately describe this kind of situations, as well as incorporating different policy conditions such as aggregate deductible and policy limit for reinsurers, multivariate distributions would be often candidate to model the aggregation of risk exposures.

In this talk, some properties of a class of multivariate mixed Erlang distributions with different scale parameters are discussed. Various distributional properties related to applications in insurance risk theory are provided. Some representations involving scale mixtures, generalized Esscher transformations, higher-order equilibrium distributions, and residual lifetime distributions are derived. These results allows for the study of stop-loss moments, premium calculation, and the risk allocation problem. Finally, some results concerning minimum and maximum variables are derived and applied to pricing joint life and last survivor policies.

2:20 – 3:05 p.m.

**Session 6 - Demystifying Catastrophe Modelling**

**Presenter(s):** Dabral Apoorv, Manager-Research and Modeling, AIR-WORLDWIDE

The session will provide the specifics of the catastrophe modelling and its best practices, along with the advancement which are taking place in the field of catastrophe modelling.

Catastrophe losses form an integral part in analyzing the risk for any insurance company. Given the rarity of these events, it is difficult to estimate and prepare for these types of events using the standard actuarial solutions. Catastrophe modelling help estimate different matrices of losses from these catastrophes. Today, catastrophe modeling is a standard practice in the insurance industry and is being increasingly adopted by other industries and therefore, it is essential for the actuaries to be aware of the facets of catastrophe modelling.

3:05 – 3:30 p.m.

**Coffee Break**

3:30 – 4:30 p.m.

**Session 7 - Actuarial Communications - practical versus practice?**

**Presenter(s):** Kin Chung Chan, Managing Director, HealthMutual Group and Actuarial Insourcing Services Limited

The intent of this presentation is to highlight the how practical situations in actuarial communication can be done professionally. As an actuary, our communication carries professional interpretations and implications. ASOP 41 provides a systematic guidance of actuarial communication. The session helps to align practical situations with ASOP 41. This topic will benefits all walks of actuaries that have to provide formal opinions based on actuarial practice. It provides example of how practical situations can be handled professionally based on ASOP 41.

4:30 – 5:30 p.m.

**Reception and Networking**