

Web Session: Big Data and Anti-Discrimination - Lessons Learned from Unisex-Tariffs

6 October 2020 | online

Big Data and Machine Learning increase the number of risk factors pricing is based on in insurance, both life and non-life. Since the Court of Justice of the European Union (CJEU) ruling on gender equality in 2011, all tariffs must be priced equally for men and women. Nevertheless, gender is an important and relevant risk factor for many insurance policies. To avoid gender discrimination, a new but simple approach to calculate unisex rates will be presented so that the distribution of men and women in different risk classes does not affect pricing anymore.

Web Session: Economic Scenario Generators Part II – Advanced Training for ESG Practitioners

15/16 October 2020 | online

This web session builds upon the contents of our introductory ESG web session offered by the EAA in March 2020. We are now going to discuss a few advanced ESG related topics, e.g: Practical ESG Calibration Challenges, Credit Risk Modelling Challenges, Fixed-Income Volatility Challenges, ESG and Least Square Monte Carlo. We expect that the participants of this web session are familiar with basic ESG concepts such as interest rate models or equity models, are not afraid of some technical cooking recipes from the ESG kitchen and are keen to discuss the practicalities of ESG work in the context of the current market environment and regulatory requirements.

Web Session: Understanding IFRS 17

19/20 October 2020 | online

After almost 20 years of debates, outreach and Exposure Drafts, the IASB has finally published the new IFRS 17 standard for Insurance Contracts in 2017. The new standard will become effective on 1 January 2022 and will fundamentally change the way insurance companies present their obligations and their financial performance stemming from insurance contracts. Consequently, IFRS 17 has triggered major implementation projects at all insurance and reinsurance companies affected – and no company can afford to waste time!

Web Session: Actuarial Approaches to Climate Change – Measuring the Financial Side of Climate Risk

28 October 2020 | online

Climate change is no more a debatable issue but a key World concern with potentially catastrophic consequences. Impacts on the environment are blatant, but quite often the financial side of climate change, i.e., the climate risk, is less obvious. Actuaries worldwide agree nowadays on the relevance of the topic and on the need to develop methods and techniques for measuring both the frequency and the financial impact of extreme climate events. During the web session, developments in the field currently under way in North America, Australia and Europe will be described at length. The objective of this web session is to provide the participants with an overview of the state-of-the-art approaches to the challenge climate change poses to insurers and, in particular, to actuaries.

Web Session: Enterprise Risk and Quantitative Risk Management in Life Insurance: An Introduction

13 November 2020 | online

The objective of this web session is twofold. On the one hand, it aims to provide the participant with the basic concepts of ERM in life insurance, with a specific focus on the quantitative phases of the RM process, i.e. risk assessment, impact assessment and monitoring, which constitute the Quantitative Risk Management (QRM). On the other, the web session stresses the need to extend the (traditional) actuarial toolkit in order to capture in quantitative terms the risk profile of life insurance lines of business.

Web Session: Understanding the Science of Climate Change

24 November 2020 | online

The objective of this course is to explore the science of global warming and climate change. While the actuarial community works on developing new ways to measure the economic impact of the risk posed by global warming, it is exceedingly important for Actuaries to gain an understanding of the underlying science of climate change. For this purpose, the course will explore key aspects of the dynamics of climate systems and the impacts of human induced climate change.

Given the vastness of the subject, this course will be presented in two parts. This is the first of two parts.

NEW

Web Session: The Future of Actuaries – Predicting what lies ahead

25 November 2020 | online

In this sense, the session is to point out the future development in the field of actuarial work. For this purpose, examples of modern digital tools and methods will be given with which actuaries can work better and more effectively. Because this is clear: from today's perspective, actuaries will be needed more than ever in the future - provided they position themselves correctly!

Web Session: Managing Quality and Explainability in Machine Learning and AI

26 November 2020 | online

In an increasingly data-driven world both the data being available to actuaries in their daily work as well as the toolbox of algorithms grow significantly. This is because new sources of data are open for actuarial work, like geo-risk data on granular levels, data from sensors and all kinds of IoT devices, health trackers, telematics data etc. On the algorithmic side, methods from the area of analytics, predictive modelling and machine learning as well applications in the area of artificial intelligence (ML in the following). These methods also extend the field of activity of actuaries, e.g. into the field of customer behaviour analytics.

Web Session: Non-Life Pricing & Profitability Analysis Using Machine Learning Techniques with R

1/2 December 2020 | online

The seminar will alternate between methodological concepts, practical examples and case studies in order to ensure a comprehensive understanding of the techniques presented. The participants will be requested to look at 4 e-learning modules (of around 30 minutes each) presenting the basics of machine learning before the web session. The access to these e-learning modules will be granted up to the end of the seminar. The case studies will be performed by the participants with the R software.



EAA Forum: Managing Risk & Capital in a Volatile World: Business Game for the Insurance Industry

3/4 December 2020 | online

The EAA Forum will start with an introduction to the business simulation. Groups of up to five Board Members will then run their own company with decisions on strategy and operations to be taken on a yearly basis. After each year of simulation a detailed analysis and discussion of the companies' performance and the effects of Solvency II on risk and capital management will be conducted by the instructors. Finally, after four simulated business years, a look back will decide which company took the most successful strategy!



Web Session: Claims estimation for Non-Life Insurance Using MATLAB

14 December 2020 | online

We'll be modelling Claims estimation using different traditional methods, automating the whole workflow we encounter in our daily tasks: from data handling, modelling and report generation (static or dynamic) as well as automatic component creation to be run by anyone, anywhere via desktop or web. We'll also see alternative methods to be applied to this kind of problem as well as how to handle data which doesn't fit in memory without compromising any accuracy.

Web Session: Reform of Public Pension Schemes: Actuarial Challenges

15 December 2020 | online

The objective of this online session is to present the concept of Automatic Adjustment mechanisms for social security pension, based on real experiences in different countries. After a short reminder about public pension schemes, we develop some philosophies of automatic adaptation, including structural reforms such as NDC (notional account) or point systems. More theoretical models based on optimization programs will also be introduced.

NEW

Web Session: Deep Learning in Insurance – Theory and Practice



1/2 February 2021 | online

The main purpose of this online training is to get the participants acquainted with DL models. To this end, a healthy mix between theory and practice will be provided, however, it is important to note that some time will be spent to go through the theoretical foundations of neural networks and hence DL, as the inner workings of these models are a bit different from the ones of the classic statistical models. Note that quite a bit of time will also be spent on some real insurance applications, as to clearly illustrate how to use this amazing technology in practice. More specifically, applications on technical pricing in non-life and text analysis will be provided

Web Session: Solvency II 2020 - Review

23 February 2021 | online

The EU – Commission had requested EIOPA to provide technical advice on the review of the Solvency II Directive by 30 June 2020. As a consequence of the Covid-19 pandemic this timeline has been revised. Advice will now be delivered at end of December 2020. In line with the requirement of Article 77f (2), EIOPA will provide its technical advice in the form of an opinion. They will consider the comments received from stakeholder on two consultation papers published in 2019. The Actuarial Association of Europe (AAE) has commented on both papers. The new timeline will allow an assessment of the impact of Covid-19 on the Solvency II review. Overall, the objective of this web session is to inform participants of EIOPA's opinion. We will present EIOPA's advice and discuss deviations from our stance on these issues. In doing so the focus will be on topics with a strong actuarial relevance.

NEW

Web Session: Machine Learning in Finance and Insurance

10 March 2021 | online

The objective of this web session is that participants should become familiar with neural networks used to solve practical problems in finance, banking and insurance. To achieve this we begin from the scratch and introduce machine learning techniques step by step.

During our complete web session we learn how the introduced algorithms can be implemented so that the participants are able to build up their own use cases in Python at the end.

NEW

Web Session: Understanding IFRS 17

6/7 May 2021 | online



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NEW

Capital Generation and Latest Solvency II Developments

21/22 June 2021 | Cologne, Germany



With the introduction of Solvency II (SII) in 2016, the solvency ratio has become an important metric for the performance and position of insurance companies in Europe. Although Solvency II reporting is primarily aimed at prudential reporting to the regulator, the importance of Solvency II reporting and Capital Generation in particular is eminent for all stakeholders and investors in particular. Rather than being a regulatory framework only, Solvency II has evolved as a new framework for reporting on the value of insurance companies. The seminar provides an overview on the current practices adopted by insurance companies to improve their free capital generation. In addition, we will highlight all kinds of recent developments in the area of Solvency II such as the implications of the EIOPA 2020 review.

CERA Seminar Dates

Based on the 2011-implemented education and examination system of the German Actuarial Association (DAV), the EAA offers a series of training courses and exams (through DAV) to study for the CERA designation, e.g.:

- CERA, Module 0: A Refresher Course in Financial Mathematics and Risk Measurement, 10/11 December 2020, online
- CERA A, Module A: Quantitative Methods of ERM, 24-26 February 2021, online
- CERA, Module C: Processes in ERM, 12/13 April 2021
- CERA, Module D: ERM – Economic Capital, 14/15 April 2021

Please visit www.ceraglobal.org to get information if your association is entitled to issue the CERA designation. For more information please also feel free to contact the EAA directly.