

EAA Web Session

Emerging Risks: Statistical Analysis and Scenario Building

13/14 November 2025 | 9:30-13:00 CET | online

Introduction

In a context of widespread instability, the actuarial analysis of emerging risks takes on particular importance to facilitate the adaptation of insurance to these profound changes. Whether it be old risks with poorly anticipated consequences (such as the epidemiological risk, as demonstrated by the recent Covid-19 crisis, whose consequences can significantly exceed purely healthcare boundaries), risks undergoing strong and worrying evolution (such as climate risk), or more recent risks (such as cyber risk), the task of actuaries is particularly delicate. The lack of data is notably a hindrance to a rigorous approach to these important questions. This session aims to lay the groundwork for a scientific approach to this problem and to introduce some tools for discussing the insurability of these new risks.

Participants

Actuaries with basic knowledge on statistics. Being familiar with Bayesian analysis is preferable but not mandatory.

Purpose and Nature

This session will notably have two main angles. Firstly, it will raise the question of data, their quality, and the necessary reliance on expert judgment, crucial for risks where experience is limited. Bayesian analysis notably allows for this integration, but does not exempt from a critical examination of the quality of expert data, and we will thus present some methods to attempt to evaluate it.

Secondly, we will examine the shift from a "historical data" approach to a "scenario-based" approach. Because while the notion of scenario allows for anticipating situations never encountered before, their design must adhere to scientific standards to avoid being purely speculative.

A simplified illustration of these issues will be provided during the training. An R notebook will allow participants to follow and adapt the implementation without needing an in-depth knowledge of the software.

Language

The language of the web session will be English.

Lecturer

Olivier Lopez

Olivier Lopez is Professor at Ensaie Institut Polytechnique de Paris, co-supervisor of the master degree in Statistics, Finance and Actuarial Science. He formerly directed the Institute of Statistics of Sorbonne Universite from 2016 to 2023. He is a fully qualified member of Institut des actuaires (French actuarial association), and member of its Scientific board since 2013. His research is mainly related to the use of statistics and machine learning to actuarial sciences, with a particular focus on the insurability of emerging risks (epidemiology, natural disasters, cyber).

Preliminary Programme

Thursday, 13 November 2025

09:30-11:00	Part I: Introduction - Definition of Emerging risks and examples - Actuarial analysis of emerging risks: difficulties to overcome (lack of data, lack of robustness of the traditional methods...)
11:00-11:30	Break
11:30-13:00	Part II: Methods to include expert judgment - Expert judgment and Bayesian analysis - Calibration of a prior distribution from expert judgment - Assessing the quality of expert judgment

Friday, 14 November 2025

09:30-11:00	Part II (continued): - Practical example - Assessing the quality of expert judgment
11:00-11:30	Break
11:30-13:00	Part III: Scenario based approach Vs. Historical approach - Scenarios: stress testing and prevention - Scenario building and calibration

All the above times are given in CET (Central European Time).

Fees & Registration

Early Bird Registration Fee (until 2 October 2025):

- For private customers in the EU: €450.00 + VAT of the billing country (example Germany: €535.50 incl. 19% VAT)
- For private customers outside the EU: €535.50 (incl. 19% VAT)

- For businesses within the EU (excl. Germany, with valid VAT ID): €450.00 (net, reverse charge applies)
- For businesses in Germany: €535.50 (incl. 19% VAT)

Regular Registration Fee (from 3 October 2025):

- For private customers in the EU: €585.00 + VAT of the billing country (example Germany: €696.15 incl. 19% VAT)
- For private customers outside the EU: €696.15 (incl. 19% VAT)
- For businesses within the EU (excl. Germany, with valid VAT ID): €585.00 (net, reverse charge applies)
- For businesses in Germany: €696.15 (incl. 19% VAT)

Important VAT Information:

- For private customers with a billing address in an EU country: VAT will be charged at the applicable rate in the country of the billing address. The final amount, including VAT, will be calculated upon invoicing.
- For customers with a non-EU (third country) billing address: Only a non-company billing address is accepted for VAT compliance reasons. 19% VAT applies to all non-EU private customers.
- For businesses within the EU (excluding Germany), Iceland, Liechtenstein, Norway, Switzerland, and the UK with a valid VAT ID: The reverse charge mechanism applies (net price; VAT will not be charged). Please ensure your valid VAT ID is entered correctly during registration.
- For all customers with a billing address in Germany: 19% VAT applies.

Please submit your registration using this [online form](#). Closer to the event, you will receive further login details to join the web session.

Your registration is binding. Cancellation is only possible up to 2 weeks before the first day of the event. If you cancel later, the full participation fee is due. You may appoint someone to take your place but must notify us in advance. EAA has the right to cancel the event if the minimum number of participants is not reached.

We will send you an invoice via email. Please allow a few days for handling. Please always give your invoice number when you effect payment. All bank charges are to be borne by the participant.

Registration is open until two working days before the web session. If registration has already been closed for this web session, please call us or send an email to contact@actuarial-academy.com in order to find out whether a late registration is still possible.

Technical Requirements

Please check with your IT department if your firewall and computer settings support web session participation (the programme Zoom will be used for this online training). Please also make sure to join the web session with a stable internet connection.

CPD

For this web session, the following CPD credits are available under the CPD scheme of the relevant national actuarial association:

Austria:	6 points
Belgium:	6 points
Bulgaria:	9 points
Croatia:	individual accreditation
Czechia:	6 hours
Denmark:	6 credits
Estonia:	6 hours
Finland:	5 points
France:	36 points
Germany:	6 hours
Greece:	8 points
Hungary:	6 hours
Iceland:	6 credits
Ireland:	6 hours
Italy:	individual accreditation
Latvia:	6 hours
Lithuania:	6 hours
Netherlands:	approx. 6 points (individual accreditation)
Norway:	6 points
Poland:	6 hours
Portugal:	6 hours
Serbia:	5 hours
Slovakia:	individual accreditation
Slovenia:	individual accreditation
Spain:	CAC: 6 hours, IAE: 6 hours
Switzerland:	individual accreditation
USA:	SOA (Section B): up to 7.2 hours

No responsibility is taken for the accuracy of this information.