

Oasis Insight London, Conference Agenda

April 30th & May 1st, 2025

SPEAKERS

SESSION OVERVIEW & SUMMARY

	Unpicking the Pricing Landscape for European Windstorm
<p>DR. CHRIS WEBBER SENIOR MANAGER RESEARCH AND DEVELOPMENT - BRIT INSURANCE</p> <p>DR. JULIA LOCKWOOD - SENIOR SCIENTIST - UK MET OFFICE</p> <p>SANDRA HANSEN MSC - HEAD OF INTERNATIONAL PERIL ADVISORY AND CLIMATE - GUY CARPENTER</p> <p>DR. SAGAR BORA HEAD OF MODEL EVALUATION UK & EMEA - AON</p> <p>DR. SAM PHIBBS - HEAD OF CATASTROPHE RESEARCH - MS AMLIN</p>	<p>Overview</p> <p>This session aims to discuss whether market pricing and technical pricing are complementary for European Windstorm risk. We investigate the uncertainties involved in modelling windstorm losses and highlight the most pertinent research questions to help us better understand the present-day risk landscape.</p> <p>Summary</p> <ul style="list-style-type: none"> • Historical trends in loss and storm severity indices suggest a reduced present-day risk landscape, however climate variability trends suggest otherwise. • The vulnerability and location of building stock can provide a partial explanation for recent loss trends; however, hazard appears to be influencing this trend. • Future trends in European windstorm risk suggest changes to the regionality and extent of windstorm impacts into the future. • A quiescent period over the past three decades is raising questions of European wind risk models, however have we just been 'lucky'? • Vendor models take divergent views on almost all aspects of windstorm modelling, which highlights the uncertainty that remains in this field. • Ambiguity in event definitions and uncertainty in windstorm clustering are greatly impactful to risk carriers.
	Drivers of future risk- the complex interplay and future evolution of hazard, vulnerability and exposure
<p>IOANA DIMA-WEST – HEAD OF SCIENCE AND NATURAL PERILS – AXA XL</p> <p>JESSICA BOYD – MODELLING RESEARCH AND INNOVATION LEAD - WTW RESEARCH NETWORK</p> <p>VITOR SILVA – RISK COORDINATOR - GEM FOUNDATION</p> <p>SALVATORE IACOLETTI – CATASTROPHE RESEARCH LEAD - AXA XL</p>	<p>Overview</p> <p>Risk is often mistaken for hazard alone, but it is actually a combination of hazard, vulnerability, and exposure. All three factors must be considered when assessing change—whether in the past or future. While past changes are typically accounted for in catastrophe models, future changes are more uncertain. We have some insights into future hazard trends, though uncertainties remain, whereas future vulnerability and exposure are less studied and discussed. To make this broad topic more tangible, we will focus on a specific peril and region—North Atlantic Hurricanes—connecting the discussion more directly to business implications</p> <p>Summary</p> <ul style="list-style-type: none"> • Hazard: Understanding the causes of hazard changes and Importance of distinguishing between average and interannual variability changes • Vulnerability: The impact of vulnerability on expected losses and claims, and how insurers can promote resilience through better building codes in the future • Exposure: The Challenges in compiling past, present and future global exposure models through scenarios of growth/development

Challenging our understanding of model evaluation

TOM PHILP - CHIEF EXECUTIVE OFFICER AT MAXIMUM INFORMATION

SANDRA HANSEN MSC - HEAD OF INTERNATIONAL PERIL ADVISORY AND CLIMATE - GUY CARPENTER

LUIS DA COASTA SOUSA - GALLAGHER RE

DIMOSTHENIS TSAKANIAS - FLOOD RESEARCH LEAD, UK & EMEA – AON

Overview

Industry groups have met to help with the standardisation of some of the data and information needed to evaluate models. This session will cover the following areas

Summary

- Consensus on Key Perils: Identifying common areas of agreement on major risk perils.
- Points of Disagreement: Exploring areas where differing views emerged on peril assessments.
- Implications for Model Evaluation: Understanding how these insights impact the way we assess risk models.
- Gaps in Data: Identifying missing datasets that could enhance model accuracy.
- Defining Model Appropriateness: Establishing criteria for evaluating the suitability of different models.

How the crossover of the Insurance Industry and developing countries needs benefits all

STUART FRASER - DIRECTOR- FRASER DISASTER RISK CONSULTING

NICK MOODY – CO DIRECTOR, GLOBAL RISK MODELLING ALLIANCE

ALASTAIR NORRIS – CLIMATE AND DISASTER RISK CONSULTANT

VIRGINIA MURRAY – HEAD OF GLOBAL DISASTER RISK REDUCTION – UK HEALTH SECURITY AGENCY

Overview:

The IDF has for some time been working on these shared on these shared objectives. Among others this has led to the development of:

- Oasis Risk Explorer: A free tool designed to structure and price parametric insurance solutions.
- Global Exposure Model: A comprehensive dataset for assessing worldwide risk exposure.

The UN and the World-bank have also been active participants in developing standards that are relevant to our industry and Professor Virginia Murray will explain about the development of Hazard information Profiles (HIP's) and how they could help standardise how we look at hazards. This does also raise the questions about how Oasis curated open standards could and should be expanded.

Vulnerability – Challenges and Innovations

DR. NIGEL WINSPEAR - HEAD OF NATURAL CATASTROPHE ANALYTICS RESEARCH - SOMPO INTERNATIONAL

PROF TIZIANA ROSSETTO PROFESSOR OF EARTHQUAKE ENGINEERING - UCL

DR JOSHUA MACABUAG CHIEF PRODUCT OFFICER - RENEW RISK

DR INGRID CHARVET MODEL DEVELOPMENT LEAD - RENEW RISK

STUART FRASER DIRECTOR - FRASER DISASTER RISK CONSULTING

Overview

Vulnerability modelling is often overlooked in the pursuit of hazard in the Cat modelling world; hence we intend to fill some of this omission with this session! We'll give a brief overview of where we stand today, some of the challenges we face, innovations that have been made and opportunities that still exist for vulnerability developers. If you work in Cat modelling this is one not to miss!

Summary

- Overview of Vulnerability Functions (VFs), their types, and implementation in catastrophe models, along with key use cases like validation and cost-benefit analysis.
- Exploration of the current state of VF innovation, challenges in development, and barriers to progress.
- Emerging opportunities for innovation, including advancements in green technology and qualitative analysis of green-economy assets.
- Identification of gaps in VF research using heatmaps and discussion on potential applications in other fields.
- Practical examples of VF innovations, including Pavia RED component-based VFs and multivariate vulnerability applications for climate adaptation.
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Increasing Risk of Large Hail in Europe

Overview

DANA FOLEY - HEAD OF
CATASTROPHE RESEARCH
- CHAUCER GROUP

ALEXANDRA MCCONKEY
- PORTFOLIO ANALYST -
CHAUCER GROUP

PIERRE MOUILHADE – CO
FOUNDER- IPE

Recent large hail loss causing events in 2022 and 2023 in Europe have elevated hail as a concern amongst many insurers. Chaucer will present on findings from a research review which demonstrate how the risk of large hail in Europe is changing, and what we think this means for insurers. IPE will present consequences on European Insurance Industry for a Peril which is lesser studied but highly Climate Change impacted.

Summary

- Rising Frequency and Severity: Historical data suggests an increasing trend, though the dataset remains limited.
- Future Projections Align with Trends: Forecasts indicate similar patterns, but conclusions are based on a single study with limited data.
- Urbanization and Risk Exposure: Growing population density in urban areas amplifies the potential severity of events.
- Climatic Factors Driving Change: Increasing CAPE, rising SSTs in the Mediterranean, and higher melting levels may influence hail frequency and severity.
- Growing Vulnerability to Hail: Insured parties are becoming more exposed to hail-related risks.

Using the global exposure model to look at Exposure concentration globally and how that informs our view of risk

DR. DANIJEL SCHORLEMMER- SENIOR SCIENTIST: LEADER OF THE TESTING & EVALUATION PROGRAM FOR THE GLOBAL-EARTHQUAKE MODEL (GEM).

Overview

The total damage and losses from the 2011 floods in Thailand amounted to THB 1.43 trillion (around USD 46.5 billion). Where globally are there other concentrations or risk that we might be concerned about? This talk will explore this question using the soon to be launched new Global Exposure model which has approximately 2.7 billion buildings in it and is updated every 2 seconds.

Summary

- Lessons from the 2011 Thailand Floods: Understanding the economic and infrastructure impacts, key vulnerabilities, and how risk management has evolved since.
- Exploring other areas with significant exposure to natural disasters and assessing potential future threats.
- Demonstrating how the new model's real-time updates and vast dataset can enhance risk assessment, preparedness, and insurance modelling.

New science is emerging that is changing how we assess earthquake risk

JOHN WARDMAN - CHIEF COMMERCIAL OFFICER - MAX INFO

PAOLO BAZZURRO – EARTHQUAKE RISK ADVISOR - RED

ROSS STEIN – CEO AND CO FOUNDER, TEMBLOR

Overview

Earthquake science has moved quicker than many people realise. This session will bring you up to date with the latest models and techniques that they incorporate and how a user can practically apply them in underwriting and decision making. We will focus on real examples for the US and Europe to illustrate this presented by some of the world's leaders in the field.

Summary

- Incorporating Fault Stress Changes in Models: How advancements in modelling stress changes in faults can refine global earthquake frequency assumptions in traditional models.
- Managing Risk During an Earthquake Sequence: Identifying when an earthquake sequence is occurring and practical steps to enhance preparedness and response.
- The Importance of Aftershocks: Why aftershocks should be a critical consideration in seismic risk assessments and how to integrate full earthquake sequence data.

- US Seismic Risk and Model Convergence: Exploring the potential convergence of US earthquake models due to the influence of the USGS, its latest updates, and its dominant role.
- California's Next Big Earthquake: Evaluating preparedness for a major seismic event in California and key actions needed to mitigate risks.

The Hurricane Damage Index (HDI)

DR PAUL WILSON -
CATASTROPHE AND
CLIMATE RESEARCH AT
TWELVE SECURIS

Overview

Description of a new index that tracks the changing hazard and provides a view of current risk. Followed by a discussion of the Implications and utility of this index.

PROFESSOR RALF TOUMI -
CO-DIRECTOR,
GRANTHAM INSTITUTE

Summary

The IRIS tropical cyclone model can calculate a predictive, forward-looking view of current risk. Model parameters use an exponential weighting of past basin hurricane counts, potential intensity and tracks. The time constants of the weights for each parameter are optimised to give the best persistence forecast of each parameter for the next 5 year mean. By combining the Atlantic Basin IRIS model with simplified damage functions and both a realistic and uniform views of exposure across the continental U.S. a new index that tracks the changing hazard and provides an independent measure of US Hurricane risk will be presented.

Why climate extremes just got worse, but the impact of climate change isn't as bad as first thought

STEPHEN JEWSON PHD

RESEARCHER IN
WEATHER, CLIMATE AND
NATURAL CATASTROPHE
RISK; CEO LAMBDA
CLIMATE RESEARCH LTD

Overview

Recent research shows that extreme climate events are more likely than previously thought due to underestimations in risk modelling. However, correcting this improves our understanding, revealing that climate change's impact on extremes is less severe than initially feared.

Summary

- Recent research reveals that the widely used method for estimating extreme climate event probabilities systematically underestimates risk.
- Correcting this issue reclassifies events previously considered 1-in-200-year occurrences as more frequent 1-in-75-year events.
- As a result, the perceived impact of climate change on extreme events is lower than previously estimated.

Sessions in progress...

- Financial module: review and comparison
- How AI is being used in decision theory
- How underwriters use models and adjust them for climate change and others