

***Catastrophe Modeling 2010: Probabilities and Possibilities***  
***The Peabody Hotel, Orlando, FL, February 9-11, 2010***

**PROGRAM AGENDA**

**TUESDAY, FEBRUARY 9, 2010**

- 8:00 a.m.**      **Cat Modeling Registration Opens**  
*Plaza International Ballroom D Foyer*
- 8:30 a.m. -**      **International Society of Catastrophe Managers (ISCM) Board Meeting**  
**9:30 a.m.**      *Peabody Boardroom*
- 10:00 a.m.**      **ISCM Fourth Annual Meeting of Members**  
*Plaza International Ballroom D*  
**Report to Membership:** ISCM Officers and Board of Directors  
*Andrew R. Castaldi, Senior Vice President, Swiss Re, ISCM President*  
**Climate Change: Short Term Outlook and Decadal Predictions**  
*Greg Holland, PhD, Director of the NCAR Earth System Laboratory, National Center for Atmospheric Research*
- 11:30 a.m.**      **Lunch Sponsored by**  
*Plaza International Ballroom A & B*
- 12:30 p.m.**      **General Session**  
*Plaza International Ballroom D*  
**Welcome and Introduction**  
*Franklin W. Nutter, President, Reinsurance Association of America*  
*Andrew R. Castaldi, Senior Vice President, Swiss Re*  
*Carl G. Hedde, Head of Risk Accumulation, Munich Reinsurance America*
- 1:00 p.m.**      **Haiti, the Caribbean Cat Risk Insurance Facility, and Cat Risk in the Caribbean**  
*Simon R. Young, PhD, CEO, Caribbean Risk Managers*
- 1:30 p.m.**      **Natural Catastrophes and Catastrophe Funds: What Role Should Government Play?**  
*Franklin W. Nutter, President, Reinsurance Association of America*
- 2:00 p.m.**      **Refreshment Break - Sponsored by**  
*Plaza International Ballroom D Foyer*
- 2:30 p.m.**      **General Session**  
*Plaza International Ballroom D*  
**Statistical-Deterministic Methods to Quantify Wind Distributions**  
*Srinivas (Sai) Ravela, PhD, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology*  
A discussion about the underlying uncertainties in wind field estimates. Learn the questions you should ask modeling companies and what they mean to your model results.



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**TUESDAY, FEBRUARY 9, 2010 (CONTINUED)**

**3:30 p.m.**

**Pandemics**

*Nathaniel Hupert, MD, MPH, Director, CDC Preparedness Modeling Unit, Associate Professor of Public Health and Medicine, Weill Medical College, Cornell University*

**4:30 p.m.**

**Refreshment Break** *Sponsored by*  
**Plaza International Ballroom D Foyer**



**5:00 p.m.**

**Breakout Sessions**

**Basic Track: General Modeling Basics**

*Mark C. Bove, Geo Research Specialist – Meteorology, Munich Re America*  
**Columbia Room, Mezzanine Level**

This session will explore the four basic building blocks of catastrophe models and how they are adapted in practice for modeling tropical cyclones and earthquakes. The discussion will primarily address stochastic event sets, site intensity calculations, and vulnerability curves.

**Basic Track: Communication Within the Catastrophe Management Food Chain**

*Robert Stevenson, Group Head of Exposure Management at Kiln, Kiln Group Limited*  
**Discovery Room, Mezzanine Level**

This session will review the role and responsibility of catastrophe modelers to communicate, implement and evolve catastrophe modeling within an organization. The ability to talk in a common language is essential to a successful implementation strategy and helps to overcome preconceived ideas and build credibility in a company.

**Basic Track: International Earthquake**

*Hjörtur Thráinsson, PhD, Senior Corporate Underwriter, Accumulation Risk Management, Munich Reinsurance Company*  
**Challenger Room, Mezzanine Level**

**Advanced Track: Rating Agencies and Catastrophe Modeling Update**

*Susan Denike, Managing Director, Guy Carpenter & Company*  
*Valerie K. Kloepfer, Senior Vice President, Guy Carpenter & Company*  
**Plaza International Ballroom B**

Rating agency treatment of catastrophe risk has evolved over recent years to reflect current modeling capabilities and “lessons learned” from actual events. This session will review how each major rating agency views cat modeling results as submitted by insurers and reinsurers. The session will also include an update on proposed changes for the 2009 reporting year.

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**TUESDAY, FEBRUARY 9, 2010 (CONTINUED)**

**Advanced Track: Reinsurance and Residual Market Assessments**

*Gabor Jaimes, Senior Catastrophe Analyst, Swiss Reinsurance America Corp.*

***Windermere Room, Mezzanine Level***

This session will discuss the impact of member assessments from residual markets on pricing of catastrophe excess of loss treaties.

**Advanced Track: Insurance Portfolio Optimization/ Portfolio Options**

*Lixin Zeng, PhD, Executive Risk Officer, Validus Re*

***Plaza International Ballroom C***

Cat models help a property (re)insurance company optimally select risks to build a portfolio with a superior risk/return profile. This discussion will define the related analytical framework, introduce the development and implementation of a solution, and demonstrate the application of this approach to a sample insurance portfolio.

**6:00 p.m.**

**Reception Sponsored by**



***First American***

***Plaza International Ballroom D Foyer***

**WEDNESDAY, FEBRUARY 10, 2010**

**7:00 a.m.**

**Breakfast Sponsored by**



***Plaza International Ballroom E***

**8:30 a.m.**

**General Session**

***Plaza International Ballroom D***

**Model Comparison**

*Federico Waisman, PhD, Chief Risk Officer, Arrow Syndicate 1910*

The portfolio model comparison will focus on California earthquake. Each model will be compared to its prior version as well as to each other. A standard portfolio will be used for the analysis.

**9:30 a.m.**

**Refreshment Break Sponsored by**



***Plaza International Ballroom D Foyer***

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**WEDNESDAY, FEBRUARY 10, 2010 (CONTINUED)**

**9:45 a.m. General Session**  
***Plaza International Ballroom D***

**Windstorm Surge Panel**

***Moderator:*** Ronald C. Nash, Chair, International Society of Catastrophe Managers

***Panelists:*** Peter S. Dailey, PhD, Assistant Vice President & Director, Atmospheric Science, AIR Worldwide

David F. Smith, Senior VP, Model Development, EQECAT

Claire Souch, PhD, Vice President of Model Management, RMS

A large portion of the losses from Hurricanes Ike and Katrina were due to storm surge. This year our modeling company panel will analyze a simple portfolio and explain how their modeled loss estimates incorporate storm surge. After completion of the company presentations, Ron Nash will moderate a panel discussion on modeling storm surge.


**11:15 a.m. Refreshment Break** *Sponsored by*  
***Plaza International Ballroom D Foyer***



**11:30 a.m. General Session**  
***Plaza International Ballroom D***

**Multiple Model Approaches - Strengths and Weaknesses**

*Karen M. Clark, President & CEO, Karen Clark & Company*

**12:30 p.m. Lunch** *Sponsored by*  **Munich Re America**  
**Munich Re Group**

***Plaza International Ballroom E***

**1:45 p.m. Breakout Sessions (Repeated from Yesterday)**

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**2:45 p.m.**

**Refreshment Break** *Sponsored by*  
*Plaza International Ballroom D Foyer*

**TOWERS WATSON**



**3:00 p.m.**

**Breakout Sessions**

**Basic Track: Next Generation Geocoding, Land Parcel Information, and Other Resources for Collecting Data**

*Brady Foust, PhD, Consulting Geographer, First American Spatial Solutions*  
*Columbia Room, Mezzanine Level*

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**WEDNESDAY, FEBRUARY 10, 2010 (CONTINUED)**

**Basic Track: European Flood**

*Jane Toothill, PhD, Technical Director, JBA Consulting*  
**Challenger Room, Mezzanine Level**

This presentation will provide a brief overview of European flood models, then focus on some key strengths and weaknesses from the perspective of an insurance user. Issues considered will include level of accuracy, scope, applicability of vulnerability functions, what is not covered by the models and transferability of the approaches used to other countries worldwide.

**Advanced Track: Future of Cat Modeling: Complementing Software with Lateral Networks and Open Source Strategies**

*Rowan Douglas, Head of WW Analytics, Willis*  
*Matt Huddleston, PhD, Principal Consultant - Climate Change, Met Office Consulting*  
*Gero Michel, PhD, SVP & Head of International Cat Underwriting and Cat Analytics, Endurance Specialty Insurance*  
**Plaza International Ballroom B**

In the 25 year history of insurance-related cat modeling, knowledge from multi-lateral networks via scientific organizations has created a constant evolutionary drive, augmenting and improving cat models. This session will address the future direction of cat modeling, assessing how community-scale open source projects and the integration of cutting-edge science has the potential to increase competition, allow further stability in model application, peer-review, and growth.

**Advanced Track: Tropical Cyclone Storm Surge and Inland Flood Risk Modeling**

*Sergei Frolov, PhD, Senior Research Scientist, WeatherPredict Consulting*  
**Plaza International Ballroom C**

TC storm surge and inland flood risk is evaluated through stochastic modeling approach. High resolution fully dynamical models of storm surge and inland flood are used to model hypothetical TC landfall events to obtain accurate estimates of expected losses. Dynamical models are calibrated against historical events.

**Advanced Track: Catastrophe Bond Market Update, Model Uncertainty, Parametric Risk**

*Craig Wenzel, Director, Insurance Capital Markets, Deutsche Bank Securities*  
**Windermere Room, Mezzanine Level**

**Advanced Track: Challenges in Modeling European Extra-Tropical Cyclones**, *Siamak Daneshvaran, PhD, Senior Managing Director, Impact Forecasting, Aon Benfield*  
**Discovery Room, Mezzanine Level**



**4:00 p.m.**

**Refreshment Break** *Sponsored by*  
**Plaza International Ballroom D Foyer**

**Tokio Millennium Re Ltd.**

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**WEDNESDAY, FEBRUARY 10, 2010 (CONTINUED)**

**4:30 p.m. Breakout Sessions Repeated**

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*Brady Foust, PhD, Consulting Geographer, First American Spatial Solutions*  
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**Advanced Track: Challenges in Modeling European Extra-Tropical Cyclones**, *Siamak Daneshvaran, PhD, Senior Managing Director, Impact Forecasting, Aon Benfield Discovery Room, Mezzanine Level*

5:30 p.m. **Adjourn to Reception Sponsored by**   
*Plaza International Ballroom D Foyer*

**THURSDAY, FEBRUARY 11, 2010**

7:30 a.m. **Breakfast Sponsored by** **SwissRe**  
*Plaza International Ballroom E* 

8:30 a.m. **General Session**  
*Plaza International Ballroom D*

**Recent Trends in Worldwide Terrorist Attacks and Evolving Factors that Promote Individual Radicalization and Recruitment**  
*Todd C. Helmus, PhD, Behavior/Social Scientist, Rand Corporation*

9:30 a.m. **Refreshment Break Sponsored by**   
*Plaza International Ballroom D Foyer*

10:00 a.m. **General Session**  
*Plaza International Ballroom D*

**The New Madrid Seismic Catastrophic Planning Project: Enhancing Risk Modeling by Including Social Impacts and Needs Assessment**  
*Theresa Jefferson, DSc, Associate Professor, Center for Technology, Security, and Policy, Virginia Polytechnic Institute and State University*

This presentation discusses the results of the analysis of a catastrophic earthquake in the New Madrid Seismic Zones. Along with the direct physical impacts, the analysis provides an estimate of both the social impacts and disaster response requirements.

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**THURSDAY, FEBRUARY 11, 2010 (CONTINUED)**

**11:00 a.m.    Importance of Nonstructural Building Components and Earthquake Loss Potential**  
*Michael J. Griffin, P.E. - Principal, Structural Engineer, CCS Group*

Earthquakes cause significant damage to nonstructural components, equipment, and systems. This in turn drives losses, recovery costs, and loss of revenue due to business interruption. This session will highlight faults inherent in the seismic design and construction of nonstructural components that contribute to the high percentage of losses, and present solutions to reduce damage to nonstructural components to ensure that facilities are able to quickly return to business-as-usual after an earthquake.

**Noon            Lunch Sponsored by**   
***Plaza International Ballroom E***

**1:30 p.m.    Modeler Breakout Sessions**

Each modeling company will address the challenges, issues and assumptions utilized in developing a comprehensive industry exposures database. The industry exposures database is a critical tool in developing both benchmark analysis and real time event estimates, and each presenter will provide their roadmap in achieving this immense task.

**The Development of Industry Exposure Databases Across the Globe**

*Jayanta Guin, PhD, Senior Vice President and Bill Churney, Vice President, AIR Worldwide*  
***Plaza International Ballroom A***

**Importance of Distance to Coast: What the Claims Data Really Tells Us**

*Peter J. Vickery, PhD, Principal Engineer, Applied Research Associates*  
*Michael Minter, EVP, Sales and Marketing, Baseline Management*  
***Plaza International Ballroom B***

**US Quake: How New Science has Shifted our Perception of Risk**

*Kate Stillwell, Product Manager, Earthquake Models, EQECAT*  
*Paul Thenhaus, Director, ABS Consulting*  
***Plaza International Ballroom C***

**Transparency is the New Black: California Earthquake as a Case Study on Understanding Uncertainty**

*Paul VanderMarck, Chief Products Officer, RMS*  
***Plaza International Ballroom D***

**2:30 p.m.    Refreshment Break Sponsored by**   
***Plaza International Ballroom D Foyer***

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**THURSDAY, FEBRUARY 11, 2010 (CONTINUED)**

**2:45 p.m. Modeler Breakout Sessions**

**Assessing Exposure Data Quality Using TruExposure**

*Bill Churney, Vice President and Adam Champion, Sr Account Executive, AIR Worldwide  
Plaza International Ballroom A*

**The Development of an Industry Database**

*Frank Lavelle, PhD, Principal Engineer, Applied Research Associates  
Richard Murnane, PhD, Senior Vice President, Baseline Management  
Plaza International Ballroom B*

**The Development of an Industry Database, TBA, EQECAT**

*Plaza International Ballroom C*

**Transparency is the New Black: California Earthquake as a Case Study on Understanding Uncertainty**

*Paul VanderMarck, Chief Products Officer, RMS  
Plaza International Ballroom D*

**3:45 p.m. Break**

**4:00 p.m. Modeler Breakout Sessions**

**The Impact of Climate on Worldwide Atmospheric Perils**

*Peter S. Dailey, PhD, Assistant VP & Director, Atmospheric Science, AIR Worldwide  
Plaza International Ballroom A*

**Impacts of Attached and Detached Exterior Structures on Hurricane Losses and Mitigation Credits**

*Peter J. Vickery, PhD, Principal Engineer, Applied Research Associates  
Michael Minter, EVP, Sales and Marketing, Baseline Management  
Plaza International Ballroom B*

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*Kate Stillwell, Product Manager, Earthquake Models, EQECAT  
Paul Thenhaus, Director, ABS Consulting  
Plaza International Ballroom C*

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*Christine Wallinger, Senior Analyst, Model Product Marketing, RMS  
Plaza International Ballroom D*

*Catastrophe Modeling 2010: Probabilities and Possibilities*  
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**THURSDAY, FEBRUARY 11, 2010 (CONTINUED)**

**5:00 p.m.**      **Reception Sponsored by**  
*Dux Restaurant*



**6:00 p.m.**      **Board Buses to StormStruck at Epcot Sponsored by Renaissance Re**  
RenaissanceRe and its affiliate, WeatherPredict, are sponsors of StormStruck, a new exhibit at Walt Disney World's Epcot. StormStruck combines exhilarating 3D special effects, interactive audience participation, and post-show information to raise awareness about weather risk mitigation research and recommendations. Visit [www.stormstruck.org](http://www.stormstruck.org) for more information.