



2024 Annual Meeting

# WHERE INNOVATION TAKES FLIGHT

November 3–6, 2024 • Phoenix, AZ



# OVERVIEW

## General Information

For more information on the following, please consult the CAS Annual Meeting website, [annual.casact.org](http://annual.casact.org).

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## Code of Conduct

The CAS is dedicated to providing a harassment-free conference experience for everyone. Registration and attendance at CAS meetings, seminars, webinars and other activities constitutes an agreement to our Code of Conduct. The full Code of Conduct (<https://annual.casact.org/essential-faqs>) clarifies prohibited activities and responsibility of all attendees.

## Speaker Opinions

The opinions expressed by speakers at this event are their own and do not necessarily reflect the positions of the CAS.

## Wireless Access

Attendees of the CAS Annual Meeting have access to complimentary Wi-Fi throughout the hotel.

Network: CAS Annual 2024

Password: Earnix24

## Download the CAS Meeting App

More detail about the sessions and speakers is found on the CAS Meeting app. All sessions will be recorded (simultaneously audio, slides), except where indicated.



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# SPONSORS AND EXHIBITORS

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# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

## Key to Complexity of Sessions



### Basic

No prior knowledge of the subject matter is assumed. Little or no technical content.



### Intermediate

General knowledge of the subject matter is assumed. Moderate technical content.



### Advanced

Working knowledge of the subject matter is assumed. Moderate to highly technical content.



**Checkbox for Personal Attendance Record**



**Non-Recorded Session**



**Livestreamed Session**

11/4/2024, 10:00 AM-10:50 AM

*Theme: Roundtable (50-minutes)*

☐ RT-1: Assessing Cyber Threat: Business Email Compromise Roundtable

### Room: Sierra Ballroom 1

Unlike traditional cyber threats that exploit technical vulnerabilities, Business Email Compromise (BEC) exploit human trust and manipulate individuals into unwittingly facilitating fraudulent activities. The frequency and sophistication of BEC attacks continue to rise, posing significant risks to organizations of all sizes and across industries. This session aims to detail the steps of a BEC attack and discuss the financial impact, particularly as it relates to wire fraud.

#### Learning Objectives:

1. Recognize the tactics of a Business Email Compromise (BEC) attack and understand its range of impact on the targeted organization.

Moderator:

Speakers: Shu Iida, Senior Vice President, Guy Carpenter  
Carol Aplin, Principal Cyber Modeler, Marsh McLennan  
Jess Fung, Managing Director, Guy Carpenter

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/4/2024, 10:00 AM-10:50 AM

*Theme: Roundtable (50-minutes)*

## ❑ RT-2: Automobile Territorial Rating and 'Microzones': How Refined Can It Get? 🗣️

### **Room: Sierra Ballroom 2**

Territorial ratemaking refinement, geographical subdivisions, relativities per coverage, always seem to be a 'current topic'. In the 1990's, at the RM Seminar, we heard the following from one FCAS in charge of the research department of a top 20 US P&C Insurer : 'In California, we could subdivide Los Angeles endlessly ...'. Where are we now ?

Moderator:

Speakers: Germain Denoncourt, Consulting Actuary, Coefficient Actuarial Consulting

11/4/2024, 10:00 AM-10:50 AM

*Theme: Roundtable (50-minutes)*

## ❑ RT-36: Social Inflation Roundtable 🗣️

### **Room: Sierra Ballroom 3**

Social inflation, or the rise of the frequency of large loss litigated claims and the rise of size of unclear verdicts, has led to a sharp rise in insurer claims liabilities, impacting the insurance industry's financial performance and ability to adequately reserve against larger and more volatile claims outcomes. This roundtable is designed to discuss the major drivers of social inflation, controllable vs noncontrollable influencing factors, and methods for accounting for social inflation in actuarial studies.

Moderator:

Speakers: Jason Abril, Senior Principal, Oliver Wyman

11/4/2024, 10:00 AM-11:00 AM

*Theme: Emerging Issues*

## ❑ CS-1: Actuarial View of Crypto Risks 📺 🗣️

### **Room: Canyon Ballroom**

The attendees will gain a basic understanding of how cryptography works and how it relates to digital assets. We will then explore the most critical aspect of using crypto and the underlying risks of private key management. Then, finally, we will explore popular policy coverages that insureds are seeking for and notable industry losses.

Learning Objectives:

1. Gain a basic understanding of how cryptography works and how it relates to digital assets.
2. Understand the underlying problems and risks of private key management and how industry professionals are managing and reducing these risks today.
3. Explore notable industry losses and understand the coverages that are available to customers exposed to digital assets risks.

Moderator: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman, Inc.

Speakers: Temar Richards, VP Actuary, Relm Insurance  
Kenneth Hsu, Head of Actuarial, Breach Insurance



11/4/2024, 10:00 AM-11:00 AM

*Theme: Practice Areas (Ratemaking, Reinsurance, Reserving)*

## □ CS-2: Applying Quantile Regression to Ratemaking

### **Room: Eucalyptus-Honeysuckle**

Our study focused on the insurance ratemaking process, specifically on modeling the frequency of claims, with an emphasis on incorporating telematics information in automobile insurance data. Telematics information can reveal crucial associations between drivers' behavior on the road and the number of claims incurred. The study used quantile regression to estimate the frequency of claims (Pérez-Marín et al. 2019; Kudryavtsev 2009), which determines the conditional median (or other quantiles) of the target variable, as opposed to its mean, as is commonly done in the widely used method of generalized linear modeling (Nelder and Wedderburn 1972). The comparison of these two methods forms the basis of multiple sections of this paper, which documents our study.

The first two sections of the paper discuss this software and introduce the data that we used for our analysis. The third section delves into the fundamental theory of quantile regression models and generalized linear models (Koenker and Bassett 1978; McCullagh and Nelder 1989). The paper then highlights the advantages of using quantile regression for the ratemaking process, such as in addressing heteroscedasticity or robustness to outliers. Next, a practical example demonstrates the modeling of claims frequency by using automobile insurance data.

#### Learning Objectives:

1. Have a broader modeling perspective, leveraging different modeling approaches.
2. Have a deeper view on subjects that usually are threatened in a more qualitative way, like the technical pricing loadings.
3. Face potential bias and fairness issues from a different perspective, not looking at the mean but to many other quantile.

Moderator: Joshua Pyle, VP, Head of Risk & Captive Management, Boost

Speakers: Claudio Senatore Reso, Sr. Global Insurance Solution Leader, SAS Institute

11/4/2024, 10:00 AM-11:00 AM

*Theme: Regulations*

## □ CS-3: IFRS 17 Issues for P&C Reserving Actuaries

### **Room: Acacia/Bougainvillea**

The reserving actuary plays an important role in the implementation of IFRS 17. We will discuss the various responsibilities for the reserving actuary under this accounting standard.

#### Learning Objectives:

1. Understand the role of the reserving actuary and common issues in implementing IFRS 17.
2. Understand the objectives under IFRS 17.
3. Describe the common measurement models.

Moderator:

Speakers: Andrew Duhancioglu, Principal, Oliver Wyman Actuarial Consulting, Inc.



# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/4/2024, 10:00 AM-11:00 AM

*Theme: Innovation*

## CS-4: Innovation in Reserving: From Back-Office Reporting to Frontline Value

### Room: Goldwater-Juniper

Traditionally seen as the ‘safe pair of hands’ providing assurance to the business, reserving has a reputation for being perhaps slow to innovate; slow to adapt new approaches; and slow to deploy new technologies. This session will identify some of the underlying challenges to innovation in reserving, how to overcome or work around those barriers, and provide attendees guidance on how to start innovating in a strategic but valuable manner. Our goal is to enable reserving teams to step out of the analytical shadows and into the value-adding spotlight, all while continuing to help steer a steady path through notoriously uncertain waters.

#### Learning Objectives:

1. Identify historical impediments to innovation in reserving, and start to think about ways to overcome them.
2. Understand what leading insurers have been doing in this space.
3. Enumerate numerous benefits of improving the analytical capabilities of the reserving team.

Moderator: Isaac Espinoza, SVP, Strategy & Reinsurance, Root, Inc.

Speakers: Jamie Mackay, Director, WTW

11/4/2024, 10:00 AM-11:00 AM

*Theme: Actuarial Toolkit*

## CS-5: Statistical Methods for Future Loss Estimation

### Room: Foxtail-Ironwood

This session will look at various statistical methods, such as distribution fitting and stochastic analysis, which provide an actuary with a more comprehensive picture of future loss activity. After describing the statistical methods, practical applications of these methods in areas such as ratemaking, reserving, and capital adequacy will be explored.

#### Learning Objectives:

1. List various statistical methods used to assess future loss behavior.
2. Compare the results of statistical methods used to assess future loss behavior.
3. Apply loss distribution estimates to different practices areas, such as ratemaking, reserving, and capital adequacy.

Moderator:

Speakers: Reese Mularz, Actuary, Milliman  
Sandra Schrader, Consulting Actuary, Milliman

11/4/2024, 10:00 AM-11:00 AM

*Theme: Line of Business (including Cyber Risk)*

## □ CS-6: Using Predictive Analytics to Price Med Mal Risk

### **Room: Copperwood/Desert Willow**

As the cost of collecting, storing, and analyzing data has decreased, many companies have been able to leverage analytics to optimize their business operations. For many reasons, these innovations have remained elusive for medical malpractice carriers. That is changing.

This session will delve into recent innovations that open the power of analytics to companies concerned with underwriting malpractice risk. We'll contrast traditional methods of underwriting against new approaches made possible by new data, techniques, and benchmarking. We'll cover ways companies can better price risk and how they might go about lowering overall exposure by identifying especially high-risk areas within their portfolio. We'll also show how the power of analytics can be applied to standardize and automate underwriting and renewal processes.

#### Learning Objectives:

1. Demonstrate the power of analytics in determining med mal underwriting risk with recent innovations.
2. Compare and contrast traditional methods of underwriting MPL risk with new approaches made possible by new data and techniques.
3. Identify high-risk exposures within their portfolios.

#### Moderator:

Speakers: William Burns, Vice President, Research and Analytics, MPL Association  
Matt Koerlin, Chief Product Officer, Preverity, Inc.

# GENERAL AND CONCURRENT SESSIONS

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11/4/2024, 13:15 PM-14:15 PM

*Theme: Featured Speaker*

- ❑ FS-1: Featured Speaker: Anna Maria Chávez, Former CEO of Girl Scouts of the USA; Transformational Leadership Expert; One of Fortune's "50 Greatest Leaders" 

## **Room: Canyon Ballroom**

Fortune magazine named Anna Maria Chávez one of the "World's 50 Greatest Leaders," citing her vision and creativity in revitalizing the Girl Scout brand for a new century and transforming it into one of the top 10 most innovative nonprofits in the world.

The first woman of color to lead the iconic Girl Scouts of the USA in their 104-year-old history, Anna Maria Chávez is a renowned leadership expert who harnesses the power of technology and her passion for public service to transform organizations, earning her a place in U.S. News and World Report's "STEM Leadership Hall of Fame" and on Fast Company's "Most Creative People in Business" and Fortune's "Top 50 World Leaders" lists.

Born and raised in rural Arizona to Mexican-American parents who valued education and community, Chavez graduated from Yale University and pursued her law degree at the University of Arizona. She has since been admitted to the Bar of the U.S. District Court for the District of Arizona, the Arizona Supreme Court, and the U.S. Supreme Court.

After holding numerous posts in President Clinton's administration, Chávez returned to Arizona to serve then-Governor Janet Napolitano as deputy chief of staff for urban relations and community development. In that role, she created the Arizona Division of Aging and Adult Services.

Chávez later served as CEO of the National Council on Aging and Executive Director and CEO of the National School Boards Association. She currently serves as Chief Impact Officer of Encantos, a nonprofit educational "storyteaching" platform connecting creators with kids to inspire them to learn 21st-century skills.

Passionate about teaching the value of leadership, teamwork, and the importance of risks and failure, Anna Maria Chávez provides keen insights that inspire organizations to lead authentically, work collaboratively, and make a positive impact on the world.

Moderator:

Speakers: Anna Maria Chávez

11/4/2024, 14:45 PM-15:35 PM

*Theme: Roundtable (50-minutes)*

- ❑ RT-3: 2024 Mega Issues – Climate, Cyber, AI – and Policymaker Interactions Roundtable 

## **Room: Sierra Ballroom 1**

Mega issues - Climate, Cyber, and AI to name a few - headline many news stories but also have implications for actuaries. In turn, actuaries can enter the public policy discussion on these topics using their expertise. During this roundtable, will discuss each mega issue from a public policy perspective and talk about next steps either currently underway or in the future for actuaries to contribute to the dialogue.

Moderator:

Speakers: Lisa Slotznick, President, American Academy of Actuaries

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/4/2024, 14:45 PM-15:35 PM

*Theme: Roundtable (50-minutes)*

## □ RT-4: Actuaries in (Extended!) Warranty Roundtable 🗣️

### **Room: Sierra Ballroom 2**

A discussion on various actuarial topics pertaining to extended warranty and F&I products. Topics include basic terminology, products, pricing with no data, earning patterns, IBNR, inflation, EVs and more!

Moderator:

Speakers: Aadil Ahmad, VP, Actuary & Data Analytics, GM Financial  
Jeremy Richardson, Actuary, Senior Vice President, Brown & Brown  
Alen Gong, Chief Risk Officer, Safe-Guard Products International, LLC

11/4/2024, 14:45 PM-15:35 PM

*Theme: Roundtable (50-minutes)*

## □ RT-35: New Associates Roundtable 🗣️

### **Room: Sierra Ballroom 3**

Join other new associates as we explore ways to better engage within the CAS community. We'll discuss innovative opportunities for involvement, such as volunteering, professional education, and other ways to make the most of your membership. Share your thoughts on how CAS can continue to support your career growth and strengthen the connections within our community. Limited to new ACAS.

Moderator:

Speakers: Shelby Wolff, Membership and Volunteer Engagement Manager, Casualty Actuarial Society  
Mikey Bevarelli, Membership and Volunteer Engagement Specialist, Casualty Actuarial Society

# GENERAL AND CONCURRENT SESSIONS

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11/4/2024, 14:45 PM-15:45 PM

*Theme: CAS Update*

## □ CS-7: Admissions Updates 🇺🇸

### **Room: Acacia/Bougainvillea**

Join Admissions on a lively discussion that spans the credentialing pathway. During the session, we will touch upon topics such as the purpose of the ACAS & FCAS credentials, current requirements, what skills actuaries will need in the future, different pathways to enter actuarial profession, and how P&C Insurance knowledge is evolving.

#### Learning Objectives:

1. How the APA will help enhance your work as an actuary.
2. How the CAS certification program is maintaining rigor and prestige while also providing clarity to the exam process.
3. How to be a valued admissions volunteer.

Moderator:

Speakers: Margaret Lyons, Director of Certification Development, Casualty Actuarial Society

11/4/2024, 14:45 PM-15:45 PM

*Theme: Predictive Analytics*

## □ CS-9: Credit Insurance in a Dynamic Economy

### **Room: Copperwood/Desert Willow**

The COVID-19 pandemic and subsequent inflationary period have significantly impacted the credit default insurance market, presenting unique challenges for both pricing and reserving actuaries. This presentation explores these challenges through the lens of Auto Loan Default Insurance. We will discuss:

The impact of macroeconomic factors such as supply chain shortages, inflation, interest rates, and unemployment on credit risk in the auto loan sector.

Modeling considerations: How traditional pricing and reserving models need to be adapted to account for the current economic uncertainties. Including discussions of specific methodologies like stress testing, stochastic modeling, or machine learning techniques.

Practical guidance: We will offer actionable suggestions for actuaries to update their models and improve risk assessment in a dynamic economic environment.

Insights from this case study can be applied more broadly to other credit insurance lines, offering valuable insights for actuaries navigating the current economic landscape.

#### Learning Objectives:

1. Identify the key macroeconomic factors impacting credit risk.
2. Describe the limitations of traditional ratemaking and reserving models in a dynamic economic environment.
3. Evaluate and implement practical strategies for updating their credit insurance models to account for current economic uncertainties.

Moderator: Alice Xiang, AVP, Actuary, Berkley Luxury Group (a Berkley Company)

Speakers: Zachary Luety, VP, Actuarial, Open Lending

11/4/2024, 14:45 PM-15:45 PM

*Theme: Line of Business (including Cyber Risk)*

## □ CS-8: Navigating The Current and Future State of Cyber Insurance

### **Room: Foxtail-Ironwood**

The cyber risk landscape has undergone significant evolution since the years marked by ransomware incidents. In this panel discussion, we will delve into the present state of the cyber insurance and reinsurance market, examine emerging cyber threats such as supply chain attacks and generative AI, and explore the quantification of cyber risk. Join us as we explore the dynamic interplay of various factors within the realm of cyber insurance.

#### Learning Objectives:

1. Demonstrate an understanding of the current state of the cyber insurance market
2. List some of the emerging threats impacting cyber insurance
3. Gain insights into the quantification of cyber risk

Moderator: Robert Wolf, Vice President, Chief Actuary, Stonetrust Insurance Group / Wintail

Speakers: Andrew Duhancioglu, Principal, Oliver Wyman Actuarial Consulting, Inc.  
Jess Fung, Managing Director, Guy Carpenter  
Richard McCauley, Vice President, Cyber Cat Modeling Specialist, Guy Carpenter



11/4/2024, 14:45 PM-15:45 PM

*Theme: Practice Areas (Ratemaking, Reinsurance, Reserving)*

## CS-10: Neural Networks for Multivariate Loss Reserving

### Room: Eucalyptus-Honeysuckle

In the Property and Casualty insurance industry, accurately estimating claims reserves is crucial for financial stability. Traditional methods often overlook dependencies between different lines of business, leading to potential inefficiencies. There is a significant gap in leveraging advanced machine learning techniques, such as recurrent neural networks, to address these complexities in multivariate loss reserving and risk capital analyses. This paper introduces an Extended Deep Triangle (EDT) model that builds upon the Deep Triangle from Kuo (2019) to better capture dependencies between LOBs. By using incremental paid loss and a symmetric squared loss function, the EDT model effectively models these dependencies. Additionally, we employ generative adversarial networks (GANs) to derive the reserve predictive distribution, enabling the assessment of risk measures and the risk capital calculation. This innovative use of GANs provides valuable insights from a risk management standpoint. Our methods are applied to personal and commercial automobile lines from major US P&C insurers, demonstrating the EDT model's superiority over copula regression models in predicting total loss reserves. Furthermore, the risk capitals derived from EDT combined with GANs are lower, indicating a significant diversification benefit. These results are validated through a simulation study, offering a promising direction for enhancing reserve estimation practices.

#### Learning Objectives:

1. Understand the importance of dependence modelling for loss reserving and risk capital analysis.
2. List the different methods to model dependencies between risks.
3. Use Neural Networks for Dependence Modeling in Loss Reserves.

Moderator: Aaron Wright, Director, Strategy, Earnix

Speakers: Anas Abdallah, Associate Professor, McMaster University

11/4/2024, 14:45 PM-15:45 PM

*Theme: Professionalism*

## CS-11: Professionalism Considerations of Using Large Language Models in Actuarial Applications

### Room: Goldwater-Juniper

In the last 2 years, an explosion in the usage of large language models (LLMs) has produced widespread excitement but also anxiety about the potential of AI to simplify or perhaps replace human work. In this session we'll briefly review these models and how they might be used for actuarial work, and then focus on the professionalism considerations for any actuaries relying on these models.

#### Learning Objectives:

1. Identify how the Code of Conduct and ASOPs apply to Large Language Models.
2. Discuss responsibilities and considerations when using Large Language Models for actuarial work.
3. Explore potential problems with using Large Language Models for actuarial work.

Moderator: Frank Gribbon, Director, Personal Auto Actuarial Products, Verisk

Speakers: Josh Taub, Director of CAS Exams, The Infinite Actuary  
Andrew Dalgaard, Actuary, Allstate Insurance Company

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/4/2024, 14:45 PM-15:45 PM

*Theme: Economic Outlook*

## CS-12: Navigating Social Inflation

### Room: Canyon Ballroom

Join us for an in-depth panel discussion on social inflation, where you'll gain a comprehensive understanding of this phenomenon and its historical context. Learn about the key drivers, such as litigation trends and socioeconomic changes, and assess the specific impacts on property and casualty insurance. Our experts will explore the actuarial challenges and share effective risk management strategies to mitigate the effects of social inflation. Engage in a collaborative discussion to exchange ideas and ask questions on this critical topic.

#### Learning Objectives:

1. Identify and understand the key drivers of social inflation and the impact on the insurance industry.
2. Evaluate and quantify the challenges posed by social inflation and the potential impact of social inflation on severity trends, enabling better preparation for future changes.
3. Identify effective risk management and mitigation strategies to counteract social inflation.

Moderator: John McGinn, Actuarial Analyst, IFG Companies

Speakers: Bill Finn, SVP, Chief Actuary and Chief Data Officer, Hanover Insurance Group  
Katey Walker, Senior Vice President, Xceedance  
Kimberly Guerriero, Principal and Consulting Actuary, Milliman

11/4/2024, 16:15 PM-17:30 PM

*Theme: General Session*

## GS-1: Data Analytics in Sports

### Room: Canyon Ballroom

In the realm of professional sports, the innovation of data analytics has increasingly become a vital tool for coaches, scouts, and athletes to enhance their game insights and improve player performance. Recently, actuaries or those with actuarial training have been making significant strides into this field, leveraging their expertise in analyzing large data volumes to drive innovative strategies and insights.

#### Learning Objectives:

1. Bridge the similarity of sports management and insurance.
2. Explore and discuss game theory in a real-world scenario.
3. TBD.

Moderator: Robert Wolf, Vice President, Chief Actuary, Stonetrust Insurance Group / Wintaii

Speakers: Mike Greenfield, Co-Founder, TeamRankings.com  
Paul Bessire, CTO, Coterie Insurance

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## □ RT-6: Flood Insurance and Risk Mitigation Roundtable 🗣️

### **Room: Sierra Ballroom 1**

In the round table, we will briefly introduce current private flood insurance market and NFIP. Followed by open discussion of challenges in flood insurance, then brainstorm of potential solutions from risk mitigation to innovative insurance product.

Moderator:

Speakers: Xingzhi Wu, VP - Senior Product Development Manager, Swiss Re

11/5/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## □ RT-7: IFRS17 Roundtable 🗣️

### **Room: Sierra Ballroom 2**

This session is designed for practitioners working on IFRS 17 to talk about the challenges faced when implementing IFRS 17. Practical solutions and ways to explain IFRS 17 issues would be greatly appreciated.

Moderator:

Speakers: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services  
Shil Patel-Rae, UK Managing Director, Dynamo Analytics  
Jamie Grant, Head of Actuarial Reporting and UK Chief Actuary, Lancashire Insurance

11/5/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## □ RT-8: Meet and Greet with the Incoming IAA President, Bozena Hinton 🗣️

### **Room: Sierra Ballroom 3**

The International Actuarial Association, of which the CAS is a member, serves our profession worldwide and helps to advocate for actuarial involvement in supranational organizations like COP and OECD. The incoming President will be at our Annual Meeting so this is a rare opportunity to have a roundtable with her on international actuarial topics.

Moderator:

Speakers: Frank Chang, Vice President, Applied Science, Uber  
Bozena Hinton, President-Elect, International Actuarial Association

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## RT-9: Professionalism Roundtable

**Room: Copperwood/Desert Willow**

After the pandemic, inflation has put pressure on the insurance industry. Technology continues to advance at a rapid pace. In this interactive session, please come prepared to discuss how actuaries can continue to lean into the ASOPs for support during periods of accelerated change and disruption.

Moderator:

Speakers: Nick Klinka, State Product Manager, CSAA Insurance Group

11/5/2024, 08:00 AM-09:15 AM

*Theme: General Session*

## GS-3: The State of Insurtech

**Room: Arizona Grand Ballroom (GJFI)**

The insurtech sector has attracted a lot of attention in the insurance industry over the past 5-10 years and was greeted with a mixed response of optimism and skepticism. This general session provides a history of the insurtech wave as well as the current state of the insurtech market, highlighting key trends, challenges, and opportunities shaping the industry.

Learning Objectives:

1. Discuss the state of the insurtech market.
2. Understand the reinsurance and venture impacts to the space.
3. Demonstrate an understanding of how insurtechs are applying new technologies.

Moderator: Isaac Espinoza, SVP, Strategy & Reinsurance, Root, Inc.

Speakers: David McFarland, CEO, Coterie Insurance  
James Thaler, Head of Americas - News Content, Reuters / The Insurer

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 08:00 AM-09:15 AM

*Theme: General Session*

## □ GS-2: What's Next? Flying Cars?

### **Room: Canyon Ballroom**

Flying cars, known in the aviation industry as electric vertical takeoff and landing (eVTOL) aircraft, are being designed and tested, and will soon to be certified by the FAA and similar overseas agencies for regular use. Cities and airports are planning and designing the infrastructure necessary to support and manage the so-called Advanced Air Mobility (AAM) ecosystem. Regulations, zoning laws, and air traffic control systems are being upgraded. Who will make the first play into this industry? Police / emergency first responders, air taxi services, delivery services, wealthy individuals? Insurance is needed to develop and play.

#### Learning Objectives:

1. Recognize the infrastructure and operating risks associated with the new generation of “flying cars” aka electric vertical takeoff and landing (eVTOL) aircraft, or electric air taxis.
2. Visualize the risks as it relates to cars, aircraft, and other forms of transportation
3. Be able to summarize and structure insurance solutions based on the information gained.

Moderator: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

Speakers: Byron Thurber, Associate Principal, Arup

11/5/2024, 09:45 AM-10:35 AM

*Theme: Roundtable (50-minutes)*

## □ RT-11: Comparison of US and UK Market Roundtable

### **Room: Sierra Ballroom 2**

Moderator:

Speakers: Jamie Wilson, Head of Pricing and Innovation, hyperexponential

11/5/2024, 09:45 AM-10:35 AM

*Theme: Roundtable (50-minutes)*

## □ RT-12: Flying Cars Roundtable

### **Room: Sierra Ballroom 3**

As a follow-up to the Flying Cars general session, Ron Kozlowski and Byron Thurber will host a round table to discuss anticipated insurance challenges to flying cars. Come to this session with questions and maybe even answers on how the insurance industry will cover such risks. If you have expertise in auto insurance, transportation risks, aviation and autonomous vehicles please help us with questions and possible solutions.

Moderator:

Speakers: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services  
Byron Thurber, Associate Principal, Arup

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 09:45 AM-10:45 AM

*Theme: Line of Business (including Cyber Risk)*

## ❑ CS-13: Cyber Insurance Market Update

**Room: Acacia/Bougainvillea**

In this session, you'll learn about recent cyber trends in the insurance market, data breach litigation trends, the state of the cyber industry including emerging legislative developments domestically and internationally, predictions for 2025, and learn about what's going on in the alternative risk market. Using client-specific examples, we'll explore various and creative ways the captive industry is taking part of the cyber market share. We will also include tips on how to best prepare yourself to proactively evaluate the potential risks associated with implementing emergent data privacy requirements in the alternative risk space.

Learning Objectives:

1. Understand the challenges faced with coverage in the traditional market.
2. Learn how regulatory changes could impact cyber.
3. Understand how a captive can be used to achieve cyber coverage.

Moderator:

Speakers: Kimberly Guerriero, Principal and Consulting Actuary, Milliman  
Paul Davis, Area Vice President, Arthur J. Gallagher  
Dejon Delpino, Senior Associate Attorney, Marks, O'Neill, O'Brien, Doherty & Kelly, P.C.

11/5/2024, 09:45 AM-10:45 AM

*Theme: Enterprise Risk Management*

## ❑ CS-14: ERM: Using AI in Scenario and Stress Testing for Optimizing Insurance Strategy (Part 1)

**Room: Eucalyptus-Honeysuckle**

In this session, we will explore the innovative use of artificial intelligence in developing narrative scenarios to enhance insurance strategy discussions. Participants will discover how developing comprehensive and imaginative scenarios can help identify potential future risks and opportunities, leading to more informed strategic planning. The session will cover practical approaches to creating and utilizing narrative scenarios, emphasizing their role in improving decision-making processes. Join us to learn how to craft compelling scenarios that provide a broader understanding of drivers of emerging trends and uncertainties, ultimately transforming traditional business strategies in the property casualty insurance sector.

Learning Objectives:

1. Understanding the role that AI can play in Scenario Testing.
2. How the use of AI can help produce comprehensive scenarios in Scenario Development.
3. How to blend the role of human expertise with AI in optimizing Strategic Decision-Making.

Moderator: Robert Wolf, Vice President, Chief Actuary, Stonetrust Insurance Group / Wintail

Speakers: David Ingram, ERM Advisor, Actuarial Risk Management

11/5/2024, 09:45 AM-10:45 AM

*Theme: Catastrophes*

## CS-15: Herding your Cats: Managing and Pricing Catastrophe Exposure

**Room: Copperwood/Desert Willow**

2023 was another record-setting year for climate disasters. The increased frequency and severity of catastrophic weather events has created challenges for the insurance industry, exacerbated by soaring rebuilding and reinsurance costs. This session will explore the various catastrophes that impact the US property insurance market, methods to price for this risk, including how to better segment the risk and increase pricing sophistication. The session will close out with a case study for hail and wildfire.

Learning Objectives:

1. Learn about common ways actuaries identify and measure catastrophe risk.
2. Learn about traditional and more advanced ways to segment catastrophe risk.
3. See a case study on how more advanced methods were used to segment risk.

Moderator:

Speakers: Sheri Scott, Principal & Consulting Actuary, Milliman, Inc.  
Rob Silva, Director - Customer Success, ZestyAI

11/5/2024, 09:45 AM-10:45 AM

*Theme: Predictive Analytics*

## CS-16: Model Weighting, Ensembling, and Stacking

**Room: Goldwater-Juniper**

Most actuaries routinely apply several different models to a predictive task, then use their professional judgment to choose weights for each model to produce a final selection or indication. This process is one simple example of a broader family of techniques, which also include ensembling and stacking. In this session, we discuss a number of different techniques for combining several models and their theoretical underpinnings. We dive into the important special case of combining estimates from multiple humans, rather than multiple models. We build up an intuitive understanding of when and how combinations of models yield estimators that are superior to any individual model. We describe in detail how to construct stacking models from real-world data, using examples from pricing and reserving work. Finally, we provide tips on integrating stacking, ensembling, or weighting in an actuary's daily toolbox.

Learning Objectives:

1. Describe the differences between model selection, ensembling, and stacking, and the connections between stacking and model expansion.
2. Explain the benefits and drawbacks of stacking when applied in typical actuarial settings.
3. Apply basic weighting and stacking techniques to determine optimal model combinations for common actuarial applications.

Moderator: Alice Xiang, AVP, Actuary, Berkley Luxury Group (a Berkley Company)

Speakers: Mark Shoun, Chief Data Scientist, Ledger Investing



# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 09:45 AM-10:45 AM

*Theme: Regulations*

## CS-17: P/C Regulatory and Legislative Environment

### Room: Canyon Ballroom

The regulatory and legislative environment continues to evolve and respond to changes in actuarial practice and the broader insurance and financial environments. This session will highlight current and future issues that the American Academy of Actuaries Casualty Practice Council is following. Highlighting recent actions at the NAIC, NCOIL, and in individual states, the influence that practicing actuaries are having as policymakers wrestle with the implications of climate change, technology, bias, and more continues to grow. This session will bring you up-to-speed on key issues influencing our work today, as well as what may be coming in the months and years to come.

#### Learning Objectives:

1. Understand what emerging regulatory and legislative changes may affect their practice.
2. Reflect on the issues policymakers are grappling with around climate change, technology, bias, and others.
3. Provide a review of important specific state level initiatives.

Moderator: Rich Gibson, Senior Casualty Fellow, American Academy of Actuaries

Speakers: Susan Kent, VP& Chief Analytics Officer, Ohio Mutual Insurance Group  
Christian Myers, Chief Actuary, New Mexico Office of Superintendent of Insurance

11/5/2024, 09:45 AM-10:45 AM

*Theme: Actuarial Toolkit*

## CS-18: Revolutionize Actuarial Analytics: Unlock the Value of Synthetic Data - Part 1

### Room: Palm 3AB (3rd Floor)

Synthetic data provides the necessary data for actuarial analytics while ensuring privacy and retaining detailed information often lost with traditional anonymization. These computationally-generated datasets maintain the statistical properties of the original data and are useful for performance improvement, quality assurance, operational optimization, and predictive modeling in the insurance sector. This workshop offers interactive lessons and hands-on exercises in generating and applying synthetic data for tasks such as ratemaking, underwriting, claims management, and risk assessment. Participants will also learn about synthetic data augmentation techniques and public-domain synthetic data generation tools. Please note that registrants are required to agree to the following Terms and Conditions Earnix Service Sandbox Trial Terms of Service Earnix Platform Privacy Policy

#### Learning Objectives:

1. Describe synthetic data and its applicability and advantages to various analytical tasks
2. Integrate synthetic data into ratemaking, underwriting, claims management, and risk assessment workflows.
3. Use public- and private-domain synthetic data generation tools

Moderator: Boris Pritsker, Data science group manager, Earnix

Speakers: Noa Zamstein, Senior data science researcher, Earnix

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 09:45 AM-10:45 AM

*Theme: Professionalism*

## □ CS-19: Winning the Communication Battle 🗣️

### **Room: Foxtail-Ironwood**

As actuaries, we sometimes face challenging situations in delivering bad news to our customers. When that bad news impacts a company's balance sheet, we may receive pushback and pressure to change our estimates. As actuaries advance in their careers, effective communication becomes more important than analytical work (which can be delegated to capable staff). Also, as actuaries we likely have even less experience in dealing with confrontation which can be critical when communicating bad news. This session will provide a number of suggestions to help actuaries improve their communication skills, including the professionalism requirements mentioned in the Code of Professional Conduct and the Actuarial Standards of Practice. We will provide an example of the importance of navigating a challenging communication situation through the use of a vignette and group discussion.

#### Learning Objectives:

1. Discover techniques to handle pushback and pressure to adjust results.
2. Handle confrontation.
3. Improve their communication skills.

#### Moderator:

Speakers: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman, Inc.  
Melissa Huenefeldt, Consulting Actuary, Milliman, Inc.  
Kathleen Odomirok, Principal, EY  
Zach Suter, Principal & Actuary, Mutual Capital Analytics

11/5/2024, 11:15 AM-12:05 PM

*Theme: Roundtable (50-minutes)*

## □ RT-13: Actuarial View of Crypto Risks Roundtable 🗣️

### **Room: Sierra Ballroom 1**

The attendees will discuss basics around how cryptography works and how it relates to digital assets. We will discuss the underlying risks of crypto commerce, popular policy coverages, and notable industry losses.

#### Moderator:

Speakers: Tamar Richards, VP Actuary, Relm Insurance

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 11:15 AM-12:05 PM

*Theme: Roundtable (50-minutes)*

## ❑ RT-14: Sports Analytics Roundtable 🗣️

**Room: Sierra Ballroom 2**

At this roundtable, we will discuss sports analytics and how to apply learnings and techniques to other domains. We'll cover a wide range of topics, including predictions (individual and team, short term and long term), assessment (who is the best player, which team is the best), and the increasing use of AI and sensors to understand performance.

Moderator:

Speakers: Mike Greenfield, Co-Founder, TeamRankings.com

11/5/2024, 11:15 AM-12:05 PM

*Theme: Roundtable (50-minutes)*

## ❑ RT-15: Technical Modelling Roundtable 🗣️

**Room: Sierra Ballroom 3**

Moderator:

Speakers: Jamie Wilson, Head of Pricing and Innovation, hyperexponential

11/5/2024, 11:15 AM-12:15 PM

*Theme: Enterprise Risk Management*

## ❑ CS-20: ERM: Using AI in Scenario and Stress Testing in Optimizing Insurance Strategy Discussions (Part 2-An interactive Illustration) 🗣️

**Room: Eucalyptus-Honeysuckle**

In this session, we will continue from Part 1 where the audience would be provided an illustration of a live session using AI for a particular operational strategy (e.g. capital management, growth options, etc.) as we continue to explore the innovative use of artificial intelligence in developing narrative scenarios for enhancing insurance strategy discussions. Participants will discover how developing comprehensive and imaginative scenarios can help identify potential future risks and opportunities, leading to more informed strategic planning. Attendees should bring their own laptops in this interactive session to get a chance to work with one or several of specialized chatbots that are specially created for this session.

Learning Objectives:

1. Understanding the role that AI can play in ERM and Strategy.
2. How the use of AI can help produce comprehensive scenarios in Scenario Development.
3. How to blend the role of human expertise with AI in optimizing Strategic Decision-Making.

Moderator: Robert Wolf, Vice President, Chief Actuary, Stonetrust Insurance Group / Wintail

Speakers: David Ingram, ERM Advisor, Actuarial Risk Management

11/5/2024, 11:15 AM-12:15 PM

*Theme: ESG/Climate/Sustainability*

## ❑ CS-21: Excessive Heat and Workers Compensation Costs

### **Room: Goldwater-Juniper**

Extreme heat events are the largest source of weather-related mortality in the United States and have documented impacts on workers compensation claims. Furthermore, exposure to workplace heat stress is very likely to grow with climate change as the frequency of excessive heat days increases. In this session we will cover sources of historical climate and weather data in the U.S., use of this data in actuarial research and analysis, and a case study where we evaluated the impacts of excessive heat on workers compensation claim costs in North Carolina.

#### Learning Objectives:

1. Understand the relationship between weather observations and climate data.
2. Know where to acquire granular, publicly available climate data for use in future actuarial studies and analysis.
3. Understand the potential impacts of excessive heat on workers compensation claim costs and how this could be studied further.

Moderator: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

Speakers: Garrett Bradford, Principal & GIS Consultant, Milliman, Inc.  
Sheryl Hou, Consulting Actuary, Milliman, Inc.

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 11:15 AM-12:15 PM

*Theme: Bias Training*

❑ CS-22: New CAS Research: Regulatory Perspectives on Algorithmic Bias and An Auto Telematics Case Study 

## **Room: Canyon Ballroom**

This session will share key learnings from two new reports in the CAS Research Paper Series on Race and Insurance Pricing. We will begin by sharing highlights of a survey of state insurance regulators, aiming to understand activity related to algorithmic bias and what issues are most likely to be addressed in the coming years. The survey also evaluates regulators' views on the responsibility of the insurer in addressing potential bias, and their perceptions of specific private passenger auto insurance rating factors. We will then transition to an evaluation of one possible solution for insurers attempting to prevent, reduce, or address algorithmic bias in insurance rating. Through an auto insurance case study, we will explore the potential for telematics or usage-based insurance data to help insurers balance risk assessment with social fairness.

### Learning Objectives:

1. Understand the current regulatory environment with regards to potential algorithmic bias in insurance.
2. Explore the potential for future regulatory actions impacting the insurance industry and actuarial models along with considerations for actuaries.
3. Evaluate the potential for new technologies and data sources to reduce reliance on sensitive personal information for insurance rating.

Moderator: Mallika Bender, Diversity, Equity & Inclusion Staff Actuary, Casualty Actuarial Society

Speakers: Taylor Davis, Actuarial Consultant, Risk and Regulatory Consulting, LLC  
Mallika Bender, Diversity, Equity & Inclusion Staff Actuary, Casualty Actuarial Society

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 11:15 AM-12:15 PM

*Theme: Professionalsim*

## □ CS-23: Peer Review

### **Room: Acacia/Bougainvillea**

Discussion of Peer Review and How Can It Help. Peer review is a valuable for actuaries to support their professionalism. Actuaries are ultimately responsible for their own work. However, the use of peer review can help actuaries assess the quality of their work product with added confidence. Peer review is not required by the Code of Professional Conduct. Nonetheless, many actuaries and their employers support peer review, particularly when the performance of actuarial services on critical matters. This discussion will highlight the Academy of Actuaries 2024 discussions paper and provide comments on peer review processes and resources actuaries may wish to consider.

#### Learning Objectives:

1. consider different aspects of peer review
2. consider what level of peer review is necessary
3. consider how peer review may help them

Moderator: Frank Gribbon, Director, Personal Auto Actuarial Products, Verisk

Speakers: Bob Miccolis, Managing Principal, Miccolis Consulting LLC  
Brian Donovan, Chief Actuary, Citizens Property Insurance Corporation

11/5/2024, 11:15 AM-12:15 PM

*Theme: Emerging Issues*

## CS-24: PFAS and More: Managing Concentration Risk in Reserving & Pricing

### Room: Foxtail-Ironwood

The quantification of liability catastrophe is among casualty's most complex exposure management challenges. In a liability catastrophe, the harm caused by a set of correlated commercial activities results in the accumulation of claims by many policyholders over many policy years. Solving this long-standing challenge has only gained urgency as mass tort activity in United States accelerates with emerging risks like PFAS ("forever chemicals") leading to significant economic damages. The recent increase has been fueled in part by evolving science finding new potential contributors to health risks and third-party litigation funders expanding the capabilities of plaintiff firms to pursue litigation, resulting in a concerning trend of casualty reserve restatements. The goal is to highlight key considerations for developing an actuarial approach to quantify liability catastrophe risks by identifying emerging risks, understanding underlying exposure, tracking litigation, and incorporating model estimates into actuarial workflows, including reserving, pricing/underwriting, and enterprise risk management (ERM). This forward-looking modeling approach will be demonstrated using PFAS as an example, assessing what is known today and areas of continued uncertainty. Beyond PFAS, the presentation will highlight other emerging risks that have not yet incurred material litigation and how actuaries may consider these potential liabilities in their job task.

#### Learning Objectives:

1. Highlight an exposure-based model framework to better quantify risks that may lead to future liability catastrophe events.
2. Using PFAS ("forever chemicals") as an example, demonstrate how to apply this forward-looking approach in actuarial workflows, including reserving, pricing/underwriting, and enterprise risk management (ERM).
3. Summarize other emerging risks that have not yet incurred material litigation and how to incorporate these risks into actuarial processes.

Moderator: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman, Inc.

Speakers: Graham Tibbets, Director, Product Management, Moody's, Inc.

Drew Groth, Consulting Actuary, Milliman

Julie Menken, Director, Insurance Partnerships & Senior Actuary, Praedicat, Inc.



11/5/2024, 11:15 AM-12:15 PM

Theme: *Actuarial Toolkit*

## CS-25: Revolutionize Actuarial Analytics: Unlock the Value of Synthetic Data - Part 2 🗣️

**Room: Palm 3AB (3rd Floor)**

Synthetic data provides the necessary data for actuarial analytics while ensuring privacy and retaining detailed information often lost with traditional anonymization. These computationally-generated datasets maintain the statistical properties of the original data and are useful for performance improvement, quality assurance, operational optimization, and predictive modeling in the insurance sector. This workshop offers interactive lessons and hands-on exercises in generating and applying synthetic data for tasks such as ratemaking, underwriting, claims management, and risk assessment. Participants will also learn about synthetic data augmentation techniques and public-domain synthetic data generation tools. Please note that registrants are required to agree to the following Terms and Conditions Earnix Service Sandbox Trial Terms of Service Earnix Platform Privacy Policy

Learning Objectives:

1. Describe synthetic data and its applicability and advantages to various analytical tasks
2. Integrate synthetic data into ratemaking, underwriting, claims management, and risk assessment workflows.
3. Use public- and private-domain synthetic data generation tools

Moderator: Boris Pritsker, Data science group manager, Earnix

Speakers: Noa Zamstein, Senior data science researcher, Earnix

11/5/2024, 11:15 AM-12:15 PM

Theme: *Innovation*

## CS-26: Take Your Mind off the Election and Reimagine Exposures with Us

**Room: Copperwood/Desert Willow**

A clearly defined exposure base is essential for actuarial modeling, and its definition has become increasingly complex as risk becomes more complex. Telematics and cyber insurance are examples of this added complexity, and we expect this complexity to grow as coverage becomes more complex. Should a telematics exposure be based on trip count or miles driven? When should an exposure base also be a variable in your predictive model? What about composite exposure bases? We will discuss these questions and more in this session.

Learning Objectives:

1. Compare and contrast options for a telematics product exposure base
2. Identify potential situations for composite and dynamic exposure bases
3. Discuss options for evaluating and implementing varied exposure bases in modeling projects

Moderator: Isaac Espinoza, SVP, Strategy & Reinsurance, Root, Inc.

Speakers: Max Martinelli, Actuarial Data Scientist, Akur8

Thomas Holmes, Chief Actuary - US Region, Akur8

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 12:15 PM-13:05 PM

*Theme: Roundtable (50-minutes)*

## □ RT-16: Considerations for a New Insurance Program Roundtable 🗣️

### **Room: Sonoran Sky Overflow**

When developing a new insurance program, there are many considerations such as does the company have data to develop insurance rates, is the program for a managing general agency (MGA) or insurance company, and how are expenses thought about and loaded into the program. In this roundtable, we'll discuss these considerations and many more.

Moderator:

Speakers: Matthew Samuel, Actuary, Milliman, Inc.

11/5/2024, 12:15 PM-13:05 PM

*Theme: Roundtable (50-minutes)*

## □ RT-17: Non modeled (Secondary) Cat pricing and Risk Management Roundtable 🗣️

### **Room: Sonoran Sky Overflow**

Secondary cat perils such as floods, hailstorms, tornadoes, and wildfires, which used to be smaller-scale natural catastrophe events, occur more frequently and severely in recent decade. What are the trends of modeling? How can we enhance the pricing? Above all, how to manage the risk at portfolio level?

Moderator:

Speakers: Xingzhi Wu, VP - Senior Product Development Manager, Swiss Re

11/5/2024, 12:15 PM-13:05 PM

*Theme: Roundtable (50-minutes)*

## □ RT-18: Reserving Actuaries – Then, Now and Future 🗣️

### **Room: Sonoran Sky Overflow**

A discussion about the progression of the reserving actuaries' roles to today and the impacts that can be had on businesses in the future.

Moderator:

Speakers: Angelique Scaglione, Senior Manager, EY

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 12:15 PM-13:05 PM

*Theme: Roundtable (50-minutes)*

## ❑ RT-19: Venturing into the Unknown: Navigating New Product Launches Roundtable 🗣️

### **Room: Sonoran Sky Overflow**

How do you build a rating plan when you have no data? What resources exist to learn about new products? What are best practices for navigating high levels of uncertainty? Join us for a discussion on the unique aspects an actuary must consider when launching new products.

Moderator:

Speakers: Chelsea Adler, Senior State Product Manager and Actuary, Root Inc.

11/5/2024, 12:15 PM-13:05 PM

*Theme: Roundtable (50-minutes)*

## ❑ RT-20: What is it Like to Work in Actuarial Consulting/Reinsurance Broking? 🗣️

### **Room: Sonoran Sky Overflow**

Come chat with two actuaries with experience working in consulting firms and (re)insurance broking firm. Bring your most curious questions!

Moderator:

Speakers: Lisha Qin, Senior Manager, Oliver Wyman Actuarial Consulting  
Clare Zhang, SVP, Guy Carpenter

11/5/2024, 13:30 PM-14:20 PM

*Theme: Roundtable (50-minutes)*

## ❑ RT-21: DOI/NAIC Updates in Actuarial Roundtable 🗣️

### **Room: Sierra Ballroom 1**

As the NAIC puts it, “The public wants two things from insurance regulators: They want solvent insurers who are financially able to make good on the promises they have made, and they want insurers to treat policyholders and claimants fairly. This session will give you a unique perspective how you apply your actuarial skills into insurance and regulation from Rate/Rule Filings, Financial Exams to many advanced analytics topics addressed by the regulators & NAIC regarding AI & Predictive modeling, Catastrophe models, Cybersecurity, ORSA and ASOPs, etc.

Moderator:

Speakers: Wanchin Chou, Chief Actuary & Assistant Deputy Commissioner, CT DOI

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 13:30 PM-14:20 PM

*Theme: Roundtable (50-minutes)*

## □ RT-23: What's Your Problem?: Framing Problems Differently Roundtable 🗣️

### **Room: Sierra Ballroom 3**

When a problem is identified, our immediate response is to jump straight into action. This roundtable will discuss strategies around reframing the problem, and the benefits of improving the original problem statement. Attendees will have interactive opportunities to work through reframing exercises they may be facing in their lives, with strategies that can be applied both personally and professionally. The reframing approaches discussed in the roundtable were inspired by the book written by Thomas Wedell-Wedellsborg, "What's Your Problem?: To Solve Your Toughest Problems, Change the Problems You Solve."

Moderator:

Speakers: Michael Borysek, Associate Actuary, Allstate Insurance Company  
Steven Armstrong, Chief Actuary, Allstate Insurance Company

11/5/2024, 13:30 PM-14:30 PM

*Theme: Economic Outlook*

## □ CS-27: Economic Outlook - Macroeconomic Trends for Actuaries 🎥

### **Room: Canyon Ballroom**

In this session, we will review the present state of long-term economic trends, such as GDP, inflation, investment returns, and interest rates, from an independent economic viewpoint. Then, we will review those trends in the context of the insurance industry, focusing on the actuarial implications of those trends. Finally, we will conclude with a Q&A.

Learning Objectives:

1. Understand the current state of long-term economic trends
2. Understand the current state of industry underwriting trends out to 2026
3. Contrast the macroeconomic and underwriting trends affecting key insurance segments, such as Commercial vs Personal lines and short-tailed vs long-tailed lines

Moderator: John McGinn, Actuarial Analyst, IFG Companies

Speakers: Dale Porfilio, Chief Insurance Officer, Insurance Information Institute  
Michel Léonard, Chief Economist and Data Scientist, The Insurance Information Institute

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 13:30 PM-14:30 PM

*Theme: Roundtable (50-minutes)*

## □ RT-24: Fostering Collaboration and Growth in Canada 🇺🇸

### **Room: Sierra Ballroom 2**

Calling all Canadian members!! We invite you to join members of the Canadian Task Force for a roundtable discussion focused on key issues affecting our Canadian community. This meeting will provide an opportunity to connect with members of the CAS Board, collaborate with fellow members, share insights, and contribute to future plans to address the unique challenges and opportunities faced by our Canadian members.

Moderator:

Speakers: Erika Schurr, VP and Chief Actuary, Travelers Canada

11/5/2024, 13:30 PM-14:30 PM

*Theme: International/Multi-National*

## □ CS-28: Insuring Luxury: HVV in the Global Insurance Arena 🇺🇸

### **Room: Acacia/Bougainvillea**

Drive into the realm of luxury and risk management. Join us for a thrilling ride as we navigate the unique challenges and opportunities of insuring high-value automobiles globally. From tuning coverage solutions to tackle the turns of pricing racetrack, this session offers invaluable insights into protecting luxury assets.

Learning Objectives:

1. Understand the specificities and the complexity of the high-value vehicles market.
2. Build strategies for tailoring insurance packages to match the unique needs and specifications of high-value automobile owners.
3. Navigate pricing challenges effectively in the luxury vehicle market.

Moderator: Jacopo Marchesan, Engagement manager, Munich RE

Speakers: Damiano Massimi, Senior engagement manager, Munich RE

11/5/2024, 13:30 PM-14:30 PM

*Theme: Line of Business (including Cyber Risk)*

## ❑ CS-29: Property Cat Reserving – Issues and Opportunities 🗣️

### **Room: Foxtail-Ironwood**

In recent years, various factors have led to catastrophic events becoming a major stressor on insurance companies' profitability and capital positions. Therefore, when a catastrophic event occurs, there is a strategic need for management to quickly have reliable and informative analyses delivered by the reserving actuary. This presentation will provide an introduction to reserving for property catastrophe events. We will review the importance of understanding the impact and trends of catastrophes, technical considerations when developing and executing event-level loss estimates, discuss how this work can be used by other functional areas within an insurance operation, and highlight possibilities for actuaries to position themselves to be successful partners with other departments.

#### Learning Objectives:

1. Attendees will be able to apply methods to forecast losses on property catastrophe events.
2. Attendees will be able to identify commonly encountered technical challenges related to forecasting losses on property catastrophe events.
3. Attendees will be able to advise non-actuarial operational areas by effectively contextualizing their estimates of property catastrophe losses.

#### Moderator:

Speakers: Jonathan Winn, Manager, EY  
Angelique Scaglione, Senior Manager, EY  
Meghan McLenithan, Manager, EY  
John Potter, Manager, EY

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 13:30 PM-14:30 PM

*Theme: Practice Areas (Ratemaking, Reinsurance, Reserving)*

## ❑ CS-30: The Journey of Non-insurance Companies: Methods to Reduce Downside Risk and Improve Profitability 🐼

### **Room: Eucalyptus-Honeysuckle**

Non-insurance companies desire to protect their tangible assets. In this session, we will explore different risk management and risk transfer methods such as self-insurance, captives, and insurance products. We will discuss the role of an actuary within these methods and the capital analysis to facilitate decision making.

#### Learning Objectives:

1. Learn how a non-insurance company protects its assets via self-insurance, captive, or product development.
2. Interpret a cash flow analysis by understanding income and expense assumptions.
3. Explore considerations in reducing risk and improving profitability as a company matures.

#### Moderator:

Speakers: Matthew Samuel, Actuary, Milliman, Inc.  
Annie Shen, Actuary, Milliman, Inc.  
Charles Zhu, VP, Underwriting and Actuarial, Roamly

11/5/2024, 13:30 PM-14:30 PM

*Theme: Predictive Analytics*

## ❑ CS-31: The Making of a Monograph

### **Room: Copperwood/Desert Willow**

Have you ever wanted to write an actuarial paper to expand the knowledge of the profession? Do you have a topic that could help expand student resources for the predictive analytics component of the ACAS credential? This session will help give you some guidance on how to get started, and some best practices when putting together a technical paper. The presentation will follow the journey of a CAS monograph from proposal to publication. It was a bumpy process, and we hope that sharing our experiences can help you avoid potential missteps along your own journey.

Please join this session and the accompanying roundtable to discuss how to further contribute to actuarial resources on predictive analytics and other topics.

#### Learning Objectives:

1. Use best practices to properly scope out, organize, and collaborate with peers on a technical paper.
2. Identify best practices when communicating complex technical information to an audience with varied technical experience.
3. Differentiate between CAS publications to determine which one is best for a given idea.

Moderator: Alice Xiang, AVP, Actuary, Berkley Luxury Group (a Berkley Company)

Speakers: Brandon Smith, Head of Portfolio Pricing, Markel Specialty  
Thomas Holmes, Chief Actuary - US Region, Akur8



# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/5/2024, 13:30 PM-14:30 PM

*Theme: Actuarial Toolkit*

## CS-32: Understanding Data Visualization: Making Data Speak

**Room: Goldwater-Juniper**

This session delves into the critical role that effective data visualization plays when presenting to a non-actuarial audience. It covers fundamental principles, the power of visual storytelling, and best practices for choosing the right charts and tools. By illustrating how visualization can enhance communication, foster collaboration, and drive actionable insights, this session aims to equip attendees with the skills to turn complex data into compelling visual narratives that inspire action and continuous improvement.

Learning Objectives:

1. Demonstrate best practices for creating effective and impactful data visualizations.
2. Explain the principles of visual storytelling and how they can enhance communication and collaboration.
3. Identify the appropriate charts and tools for different types of data and analytical needs.

Moderator: Joshua Pyle, VP, Head of Risk & Captive Management, Boost

Speakers: Kyle Bartee, Head of Actuarial Pricing, Roamly  
Anh Pham, Consultant, Actuarial Services, RSM US

11/5/2024, 15:00 PM-16:15 PM

*Theme: General Session*

## GS-4: Chat with Barbara Richardson, AZ DIFI Cabinet Executive Officer

**Room: Canyon Ballroom**

Please join us with a chat with the Arizona Department of Insurance and Financial Institutions Cabinet Executive Officer (CEO) Barbara Richardson. CEO Richardson previously led Nevada Department of Insurance as Commissioner and has served as Director of Operations and Fraud for the New Hampshire Insurance Department as well as across various committees and task forces across the NAIC. This session will give us a unique perspective into insurance and regulation, including anti-fraud efforts, innovation, rate regulation, and the contrast across different states.

Learning Objectives:

1. understand current topics within insurance regulation as well as approaches to new emerging issues
2. demonstrate a deeper understanding of the regulatory lens and the role of the regulator across various insurance topics
3. incorporate the regulatory perspective and efforts into our current work and future planning

Moderators: Frank Chang, Vice President, Applied Science, Uber  
Wanchin Chou, Chief Actuary & Assistant Deputy Commissioner, CT DOI

Speakers: Barbara Richardson, Cabinet Executive Officer, Executive Deputy Director, Arizona Dept of Insurance & Financial Institutions

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/6/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## ❑ RT-25: Developing Actuarial Judgment Roundtable 🗣️

### **Room: Sierra Ballroom 1**

This roundtable is specifically designed for new Associates and Fellows looking for ways to increase their actuarial judgment. Based on a popular professionalism session we will discuss ways to speed up your actuarial judgment. Topics will include understanding the business, practical experience, critical thinking and mentoring. Join us young and old and share your experiences in creating actuarial judgment.

Moderator:

Speakers: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

11/6/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## ❑ RT-26: Failure of Imagination - Existential Threats and Untapped Opportunities for Actuaries Roundtable 🗣️

### **Room: Sierra Ballroom 2**

We know about the strengths and weaknesses of actuaries, but what are the opportunities and threats? Join us at a really awesome time slot on the day after a very contentious election to imagine the future. In this session, the group will tap into their creative side and think about threats and opportunities for the actuarial profession, discussing topics from AI/ML, operational excellence, competition from data scientists, the role of insurance in society. We'll go beyond the simple "AI will replace us" and "data science is more in demand" to think through the implications of long term trends, cyclical shifts, and one time shocks.

Moderator:

Speakers: Max Martinelli, Actuarial Data Scientist, Akur8  
Zach Suter, Principal & Actuary, Mutual Capital Analytics

11/6/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

## ❑ RT-27: Geographic Data for Risk Analysis Roundtable 🗣️

### **Room: Acacia/Bougainvillea**

This discussion will delve into the latest advancements in geospatial data and their applications in assessing and managing risk in the insurance industry. Participants will discuss innovative techniques, data integration strategies, and real-world case studies to enhance predictive accuracy and decision-making. Don't miss this opportunity to explore how geographic data is transforming risk analysis and actuarial practices.

Moderator:

Speakers: Garrett Bradford, Principal & GIS Consultant, Milliman, Inc.

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/6/2024, 07:00 AM-07:50 AM

*Theme: Roundtable (50-minutes)*

❑ RT-28: What It's Like to Work at a Startup Roundtable 🗣️

**Room: Copperwood/Desert Willow**

Moderator:

Speakers: Charles Zhu, VP, Underwriting and Actuarial, Roamly

11/6/2024, 08:00 AM-08:50 AM

*Theme: Roundtable (50-minutes)*

❑ RT-29: Cyber and Tech E&O - An 2024 Update Roundtable 🗣️

**Room: Sierra Ballroom 1**

This session will provide an update to the audience regarding the state of the cyber and tech E&O insurance marketplace. It will start from a review of the evolution of these products and move through market dynamic, evolution in loss control, development in claims/loss landscape, and finally conclude with an outlook of the cyber and tech E&O marketplace into 2025 and beyond.

Learning Objectives:

1. Enumerate the driving forces behind the pricing and product development of the cyber and tech E&O marketplace.

Moderator:

Speakers: Dean Guo, Actuarial Director, Resilience Insurance

11/6/2024, 08:00 AM-08:50 AM

*Theme: Roundtable (50-minutes)*

❑ RT-31: Selling Health Insurance Like Auto Insurance Roundtable 🗣️

**Room: Sierra Ballroom 2**

The U.S. is criticized for not having universal healthcare, like virtually all industrialized countries, whose governments heavily subsidize health insurance. This makes US corporate products uncompetitive, as group health insurance is partially subsidized by U.S. companies. Nobel Economics laureate Milton Friedman also decried employer-supplied health insurance as a poor way to deliver health coverage in a 2001 article: "How to Cure Healthcare". The Affordable Care Act tried to solve those problem, but is overly costly and did not make a very large dent in the uninsured population, and had problems with adhering to the U.S. Constitution. However, there is a unique way the U.S. can overcome these problems and eventually get to universal healthcare by emulating the success of auto insurance assigned risk coverage in virtually every state. If successful, it can also lead to an individual market size almost double that of auto and homeowners insurance, priced and designed by CAS members. This Roundtable discussion seeks strategic input from actuaries who can help make this happen. To participate please read the Actuarial Review article (Sept./Oct. 2023 Issue). See below. /Users/mikewalters/Documents/ACA/Replacement/Georgia/2023/Article for Actuarial Review\_.docx

Moderator:

Speakers: Mike Walters, Retired, None  
Charles Bryan, RETIRED, PAST CAS PRESIDENT

11/6/2024, 08:00 AM-09:00 AM

*Theme: Practice Areas (Ratemaking, Reinsurance, Reserving)*

## ❑ CS-33: Impact of Shared Economy Regulations

### **Room: Eucalyptus-Honeysuckle**

This session will focus on the implications of recent regulations impacting the Shared Economy such as the Graves Amendment, Florida HB 837, and California AB 5.

#### Learning Objectives:

1. Understand the impact of shared economy regulations on actuarial analyses.
2. Assess quantitative challenges of new regulations.
3. Understand the importance of regulations on new and emerging risks.

Moderator:

Speakers: Andrew Duhancioglu, Principal, Oliver Wyman Actuarial Consulting, Inc.

11/6/2024, 08:00 AM-09:00 AM

*Theme: Emerging Issues*

## ❑ CS-42: Insurance Perspective on Vehicle Tech & Automation

### **Room: Canyon Ballroom**

HLDI published its first report on advanced driver assistance (ADAS) features in 2010. Since then, more and more vehicles have been fitted with advanced driver assistance systems and partial driving automation. The effect on claim frequency is mixed for these systems, and the impact of these systems on repair costs and collision claim severities is complex. Topics covered in this presentation will include changes in claim frequency and severity for various ADAS systems and technology bundles, Tesla Model 3 loss results, evaluations and loss results of Level 2 partial driving automation systems, updated crash avoidance testing and ratings, and the rate at which various features are spreading through the fleet.

#### Learning Objectives:

1. Explore collision, PDL, BI, MedPay, and PIP differences in frequency, severity, and overall losses for different ADAS features and bundles.
2. Describe the impact of partial driving automation on claim frequency as well as how drivers are using these partial driving automation systems.
3. Quantify vehicles in the registered vehicle fleet that have different ADAS features, and how many are predicted to 5 years and more into the future.

Moderator: Wenwen Sun, Lead Data Scientist, Verisk

Speakers: Kay Wakeman, Director of Insurance Outreach, IIHS-HLDI  
Matt Moore, Senior Vice President, HLDI

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/6/2024, 08:00 AM-09:00 AM

Theme: *Actuarial Toolkit*

## CS-35: Open-Source Actuarial Science: Chainladder-Python 🐍

**Room: Acacia/Bougainvillea**

Actuarial science has been built on the idea of open-science with a rich repository of papers, monographs and studies made freely available by the CAS. Recently the CAS launched a Github organization, enabling the open-science philosophy to be extended to open-source tooling. This session will explore the benefits of open-source tools, how and why we should get involved. We will also dive deeper into the chainladder-python library to give a practical example of how these tools and the community that surround them can benefit you and your organization. We encourage attendees' participation through Google Colab where a live demo will be shown. All you need is a Google account, no prior set up is required.

Learning Objectives:

1. Have an awareness and appreciation of open-source tools
2. How and why we should contribute to open source projects
3. Be made aware of the chainladder-python package and understands its basic functionality

Moderator:

Speakers: Kenneth Hsu, Head of Actuarial, Breach Insurance

11/6/2024, 08:00 AM-09:00 AM

Theme: *Bias Training*

## CS-36: The Chance of Disparity in the Absence of Bias 🎥

**Room: Goldwater-Juniper**

There are many stories in the news which allege bias in the presence of disparity. Moreover, the CAS has taken an interest in bias and the AAA requires one hour of continuing education in bias. In this talk we will derive an algorithm to estimate the false positive rate of bias detection when applying the rubric of disparity. This will allow a more scientific framework to pose and investigate allegations of bias. This framework will then be applied to the U.S. Census. Along the way, we will bridge the probabilistic and intuitive notion of sampling "at random", generalize an idea from Ergodic Theory, and see a solution to a certain class of constrained optimizations, all while only using undergraduate calculus.

Learning Objectives:

1. Formulate social experiments to detect bias based on disparity.
2. Apply an algorithm to estimate the false positive rate when using disparity to detect bias.
3. Understand what it means to sample "at random".

Moderator: Mallika Bender, Diversity, Equity & Inclusion Staff Actuary, Casualty Actuarial Society

Speakers: Ian Deters, Consulting Mathematician, EP Analytic Solutions

11/6/2024, 08:00 AM-09:00 AM

*Theme: Predictive Analytics*

## □ CS-37: Unlock the Full Potential of Modeling Capabilities

### **Room: Foxtail-Ironwood**

Actuaries have made great strides and investments in developing our modeling capabilities, but we often underutilize the full potential of these capabilities by limiting their application to traditional uses. However, outside of traditional loss modeling, models offer a powerful toolset for addressing a wide range of questions and challenges. By harnessing this power, actuaries can create additional value and enhance their effectiveness as business partners. In this session, we will explore various business problems and demonstrate how, through creative approaches, we can use modeling to unlock new insights and innovative solutions.

#### Learning Objectives:

1. Approach daily challenges with a fresh perspective using modeling techniques to augment or replace existing analysis.
2. View models as a versatile tool to answer a wide variety of questions and address business challenges.
3. Identify common challenges and obstacles when regularly using models to address a more broad range of questions.

Moderator: Alice Xiang, AVP, Actuary, Berkley Luxury Group (a Berkley Company)

Speakers: Josh Meyers, Actuarial Data Scientist, Akur8

11/6/2024, 08:00 AM-09:00 AM

*Theme: International/Multi-National*

## □ CS-38: Valuing Earned Insurance Liabilities Under IFRS 17

### **Room: Copperwood/Desert Willow**

The session will consider the key steps and processes required to convert actuarial best estimate insurance loss estimates typically required under GAAP to IFRS 17. We will also consider the new associated disclosure requirements.

#### Learning Objectives:

1. Understand the requirements and adjustments required to determine earned loss reserves under IFRS 17.
2. Understand the requirements for discounting, cashflows and the derivation of IFRS 17 compliant yield curves.
3. Understand the risk adjustment requirements and associated confidence level disclosure.

Moderator:

Speakers: Shil Patel-Rae, UK Managing Director, Dynamo Analytics

Jamie Grant, Head of Actuarial Reporting and UK Chief Actuary, Lancashire Insurance

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/6/2024, 09:30 AM-10:20 AM

Theme: Roundtable (50-minutes)

## □ RT-32: Actuarial Interpretation of Model Output - Roundtable 🗣️

### Room: Sierra Ballroom 1

As actuaries adopt increasingly complex data science techniques, we must always remember that every model corresponds to specific business problems and solutions. Therefore, the best model depends not only on statistical support, but also on business needs and goals. Often, the model with the best test statistics is not the best model for the business and the ability to translate data science results to business outcomes is an essential skill for actuaries.

In this roundtable, we will first define purely statistical vs. purely actuarial modeling considerations by reviewing example model output. Then we will review examples of model output and consider if one of these two considerations should outweigh the other in the given example. Lastly, we will identify conversation starters to help bring this conversation into your day-to-day work.

#### Learning Objectives:

1. Draw clear connections between traditional model output and business results.

Moderator:

Speakers: Thomas Holmes, Chief Actuary - US Region, Akur8  
Nick Foore, Assistant Vice President - Strategic Development, Western Reserve Group

11/6/2024, 09:30 AM-10:20 AM

Theme: Roundtable (50-minutes)

## □ RT-33: Mastering the Trait: Essential Skills in Insurance Roundtable 🗣️

### Room: Sierra Ballroom 2

Delve into the core competencies vital for success in the dynamic realm of insurance. From risk assessment to client communication, this session will explore key skills essential for professionals navigating the intricacies of the insurance industry. Don't miss this opportunity to gain insights, share experiences, and refine your skillset alongside industry experts and peers.

#### Learning Objectives:

1. Develop enhanced communication skills tailored for engaging clients, navigating negotiations, and fostering trust within insurance transactions.

Moderator:

Speakers: Jacopo Marchesan, Engagement manager, Munich RE  
Damiano Massimi, Senior engagement manager, Munich RE

11/6/2024, 09:30 AM-10:30 AM

Theme: Practice Areas

## CS-39: Alternative Risk Transfer and Financing 101

### Room: Foxtail-Ironwood

Businesses are operating in an increasingly uncertain environment, influenced by factors such as climate change, high inflation, geopolitical risks, supply chain disruptions and new technologies. Many of these new risks are not adequately covered by traditional insurance, leaving businesses exposed to greater volatility. Alternative Risk Transfer (ART) offers a different approach to managing risk. It encompasses various risk transfer and retention solutions that deviate from the conventional insurance model. As multinational companies seek customized solutions for a growing number of risk scenarios, ART is becoming more popular. This session will deep dive into Why, When & How to design and implement these non-traditional solutions, including some case studies.

#### Learning Objectives:

1. To have an understanding of the ART products and landscape
2. To know the end to end deal flow (origination, UW, pricing, Structure, etc.) and considerations
3. Unique considerations in actuarial/pricing the ART deals.

Moderator:

Speakers: Parag Bavishi, Chief Underwriting Officer, USQRisk  
Ben Newton, Chief Underwriting Officer, Ryan Alternative Risk

11/6/2024, 09:30 AM-10:30 AM

Theme: Innovation

## CS-40: Beyond Tradition: Exploring Non-Traditional Actuarial Roles and Opportunities

### Room: Canyon Ballroom

Join us for an engaging session that explores how the actuarial skillset can help you succeed in non-traditional roles within and outside of the insurance industry. This session will delve into the transition of actuaries into new roles/industries, the skills necessary for these evolving roles, and how AI can be used to help. Panelists will share their experiences and insights on predictive modeling, algorithmic fairness, and the future of actuarial work as it relates to non-traditional roles. With a blend of high-level overviews, curated discussions, and audience interaction, this session promises valuable perspectives for both current and aspiring actuaries.

#### Learning Objectives:

1. List the various non-traditional roles and tools that actuaries can leverage in their careers.
2. Describe how actuarial soft and technical skills be used to solve a variety of business problems.
3. Discuss the role of actuaries in promoting actuarial judgment and algorithmic fairness within various industries.

Moderator: Kyle Bartee, Head of Actuarial Pricing, Roamly

Speakers: Kyle Bartee, Head of Actuarial Pricing, Roamly  
Chelsea Adler, Senior State Product Manager and Actuary, Root Inc.  
James Guszczka, Principal, Clear Risk Analytics  
Frank Chang, Vice President, Applied Science, Uber



11/6/2024, 09:30 AM-10:30 AM

Theme: ESG/Climate/Sustainability

## □ CS-43: Climate Stress Testing under Mitigation Pathways

### Room: Goldwater-Juniper

Differentiate goals of climate stress testing. Examine challenges and methods of climate stress testing under mitigation pathways, and discuss results from a case study.

#### Learning Objectives:

1. Differentiate climate stress-testing goals and methods.
2. Examine major challenges and advances in conducting climate stress testing under mitigation pathways.
3. Examine a case study of climate stress testing under climate change mitigation pathways.

Moderator: Ronald Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

Speakers: Sebastain Awondo, Associate Researcher, Center for Risk and Insurance Research at The University of Alabama

11/6/2024, 09:30 AM-10:30 AM

Theme: Business Skills

## □ CS-41: Creating an Exceptional Employee Experience

### Room: Eucalyptus-Honeysuckle

Amid ongoing virtual and hybrid work environments and shifting employee expectations, creating a desirable and engaging employee experience has emerged as a top priority for many actuarial leaders – for good reason. As voluntary turnover remains higher than industry standard and actuarial talent continues to be one of the most challenging functions to recruit, retaining top talent has become more critical than ever. This session will explore proven tactics for shaping an employee experience that fosters engagement and connectivity across the entire employment lifecycle, resulting in a productive, fulfilled actuarial workforce.

#### Learning Objectives:

1. Explore how to create a work environment that fosters positive experiences for employees at every stage of their employment journey.
2. Analyze the evolving employee expectations, pinpointing where you may need to reevaluate existing strategies to better align with current demands.
3. Identify key components of an exceptional employee experience, such as breaking down corporate silos, reinforcing corporate culture and more.

Moderator: Aaron Wright, Director, Strategy, Earnix

Speakers: Karen Lopez, Client Advisor, The Jacobson Group

# GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASAnnual

11/6/2024, 09:30 AM-10:30 AM

*Theme: Professionalism*

## CS-44: Self-Regulation and the Code

**Room: Acacia/Bougainvillea**

The actuarial profession in the United States substantially self-regulates its members' ethical and practice standards in the development and delivery of work products and actuarial opinions. Self-regulation is both a privilege and a burden shared by all credentialed actuaries and must be supported by all members of the profession. The Code of Professional Conduct (Code) is the foundation of this effort and serves as the primary tool for measuring professional responsibility and assuring the public and regulatory authorities that the actuarial profession can be depended upon to act effectively consistent with the public interest. This interactive and introductory minded session will utilize the Code and real-life examples to explore what it means to be professional actuary and fulfill the profession's responsibility to the public.

Learning Objectives:

1. Outline the value of self-regulation.
2. Understand the centrality of the Code of Conduct to the profession's status.
3. Act consistently with the public's best interest.

Moderator: Frank Gribbon, Director, Personal Auto Actuarial Products, Verisk

Speakers: Lisa Slotznick, President, American Academy of Actuaries

11/6/2024, 11:00 AM-12:15 PM

*Theme: General Session*

## GS-5: Revolutionizing Insurance: Harnessing AI Across the Value Chain

**Room: Canyon Ballroom**

Artificial Intelligence (AI) is reshaping the insurance industry by revolutionizing processes, enhancing customer experiences, and optimizing risk management. This general session explores the transformative potential of AI across the insurance value chain, from underwriting and claims management to customer engagement and fraud detection. Attendees will gain valuable insights into cutting-edge AI applications, innovative use cases, and best practices for harnessing AI to drive efficiency, profitability, and competitiveness in the dynamic insurance landscape.

Learning Objectives:

1. Describe how AI is transforming key areas of the insurance value chain, from underwriting to claims management.
2. List practical use cases where AI can improve risk assessment, operational efficiency, and decision-making in insurance.
3. Identify challenges and best practices in implementing AI solutions while maintaining regulatory compliance and managing risks.

Moderator: Isaac Espinoza, SVP, Strategy & Reinsurance, Root, Inc.

Speakers: James Guszczka, Principal, Clear Risk Analytics

Paul Bessire, CTO, Coterie Insurance

Karthik Ramakrishnan, CEO & Founder, Armilla AI

11/6/2024, 13:30 PM-17:45 PM

*Theme: 4-hour Workshop (Wednesday, Nov 6)*

## ❑ WS-1: Bias Testing Implementation [Separate Registration Required] 🗣️

### **Room: Acacia/Bougainvillea**

This workshop will discuss and illustrate examples of bias testing implementation. The workshop will begin with the discussion of various methods for identifying potential bias and methods of preventing or addressing potential bias. This overview will also cover practical considerations and challenges of identifying and mitigating bias.

A portion of the workshop will be dedicated to discussing and demonstrating data imputation methods including Census, Bayesian Improved Surname Geocoding (BISG), and Bayesian Improved First Name Surname Geocoding (BIFSG). From here we will discuss Fairness Metrics along with the Balance Test, Control Variable Test, and Interaction Test.

We will use the rest of the time to discuss Bias Mitigation and Case Studies.

#### Learning Objectives:

1. Be familiar with methods for identifying potential bias and methods of preventing or addressing potential bias.
2. Understand data imputation methods and be able to evaluate the following methods Census, BISG, or BIFSG.
3. Set-up and calculate Fairness Metrics.

#### Moderator:

Speakers: Michael Chen, Senior Consulting Actuary, Pinnacle Actuarial Resources  
Gary Wang, Senior Consulting Actuary, Pinnacle Actuarial Resources

11/6/2024, 13:30 PM-17:45 PM

Theme: 4-hour Workshop (Wednesday, Nov 6)

## ❑ WS-2: Loss Curves Fitting - Let's Go to Practical Work! [Separate Registration Required] 🇺🇸

### Room: Copperwood/Desert Willow

Fitting loss curves is an important part of the day-to-day work for actuaries, for example in primary pricing, reinsurance pricing or negotiation, increased limits pricing, self-insured retention analyses, and many other situations. Theory is available, but filling the gap between theory and practice is often challenging for P&C insurers (large or small), reinsurers, consulting firms, governmental bodies and other actuarial employers. This session will concentrate on practical aspects, connecting theory to practice, using real data from various P&C risks and lines (Auto, HO, GL, other Commercial Lines, per kind of loss ...) and sources, to fit curves and assess common work situations and problems. Questions and answers will be used, making the audience actively participating. Graphs, classical actuarial/statistical concepts, methods and diagnostics will be presented and used. We will work with basic data inputs and statistics as mean, median, STD, coefficient of variation, skewness, percentiles, and compare them to fitted distributions curves (Lognormal, Gamma, ...). Various goodness of fit diagnostics (Chi Square, K-S, ...) will be presented, described, with strengths/weaknesses, and used to assess fit quality, and for decision making. Interpreting results will also be important part of this workshop, made in a practical, dynamic, and results oriented training context.

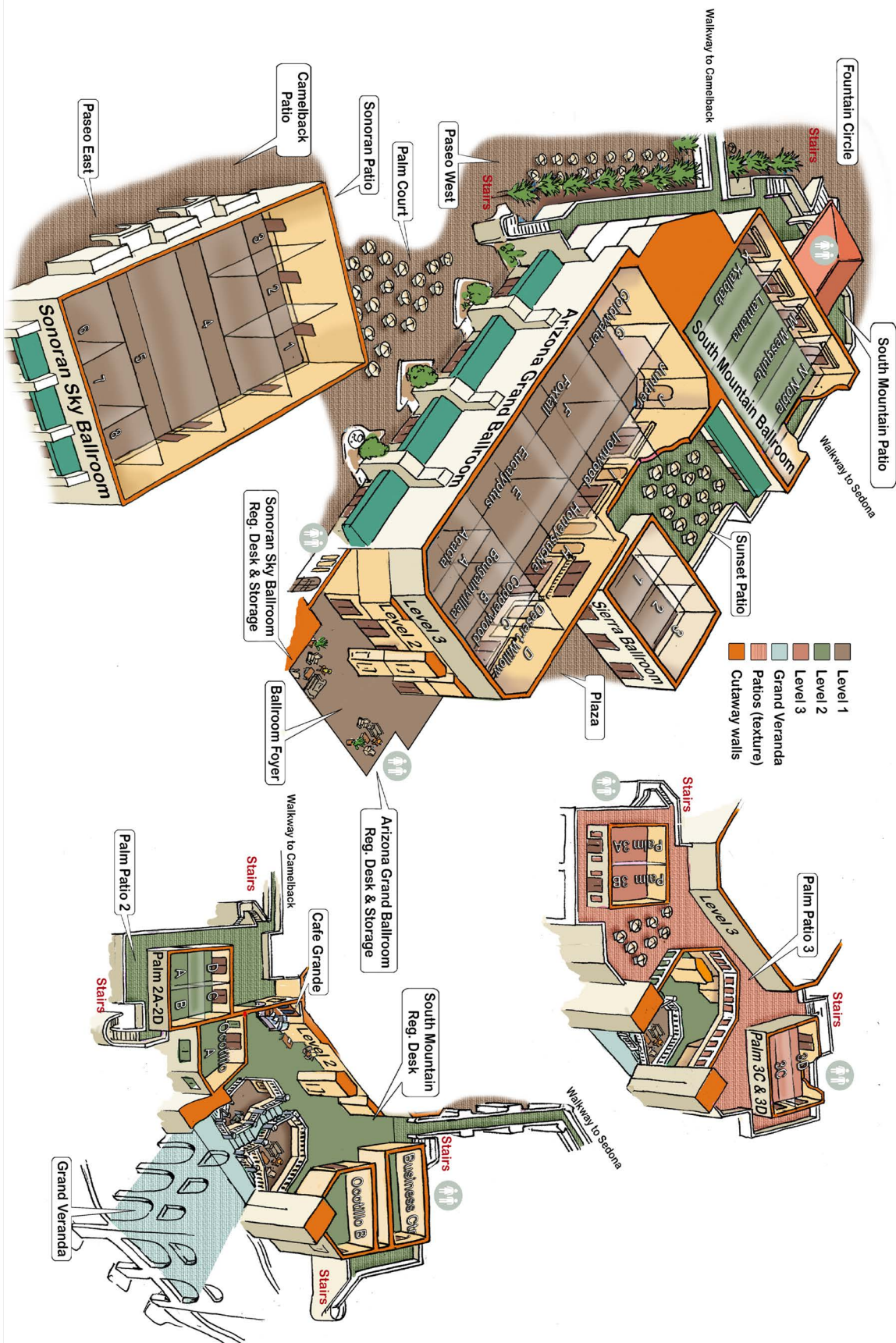
#### Learning Objectives:

1. Upon completion, participants will be able to cross the bridge from theory to practice, using recognized actuarial and statistical methods, tools and diagnostics to better fit loss curves in actuarial work for P&C risks, insurance or reinsurance.
2. Upon completion, participants will be able to make their input data more solid, by exploring data and assessing data quality and details, understanding and interpreting data, making adjustments as needed to data from internal and external sources, avoiding common and hidden pitfalls in data use, also detecting sources of data imperfections and working on several other various practical aspects - as data heterogeneity by kind of loss, how to restate grouped data from external sources before fitting, assess sparse and strange data, and a few more aspects, for better work on fits, results and decision making.
3. Upon completion, participants will be able to apply what they have learned to various P&C Insurance lines of business and kind of loss: Auto (PPA, Motorcycles, Commercial Vehicles – per coverage TPL-BI, TPL-PD, Collision, Comprehensive, ...), Homeowners (Fire, Water damage, Wind damage ...), Commercial Lines (General Liability, Property, WC ...), Reinsurance for all these lines, and more.

#### Moderator:

Speakers: Germain Denoncourt, Consulting Actuary, Coefficient Actuarial Consulting

# HOTEL MAP





# HOTEL MAP

ARIZONA GRAND  
RESORT & SPA®



Scan for FAQs

## Hours of Operation

<b>Lobby Grill</b>	
Breakfast	630am - 11am
Lunch	11am - 5pm
Dinner	5pm - 10pm
<b>Lobby Bar</b>	
Daily	11am - 10pm
<b>Guest Suite Dining</b>	
Daily	630am - 10pm
<b>Marketplace Café</b>	
Daily	630am - 8pm
<b>Aunt Chiliada's</b>	
Sunday - Thursday	4pm - 9pm
Friday & Saturday	4pm - 10pm
<b>Oasis Water Park</b>	
Check website for seasonal hours.	
<b>Arizona Grand Golf</b>	
Check website for seasonal hours.	
<b>Arizona Grand Spa</b>	
Monday - Thursday	10am - 5pm
Friday - Sunday	9am - 6pm
<b>Athletic Club</b>	
Monday - Friday	5am - 8pm
Saturday & Sunday	6am - 8pm