



NAVIGATE. PREDICT. LEAD.



SPRING MEETING

**May 7–10, 2023
The Westin Boston Seaport District
Boston, MA**

OVERVIEW

General Information

For more information on the following, please consult the CAS Spring Meeting website, www.casact.org/spring.

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Speaker Opinions

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

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MEETING SCHEDULE

Sunday, May 7

4:00 p.m. – 6:30 p.m.	Registration.....	Grand Ballroom Foyer
5:00 p.m. – 6:30 p.m.	Recognition Reception for New Associates and their Spouses/Guests	Harbor Ballroom
5:30 p.m. – 6:30 p.m.	New ACAS Photo Session	
5:45 p.m. – 6:30 p.m.	Speed Networking	Pavillion
6:30 p.m. – 7:30 p.m.	Welcome Reception (with Exhibitors)	Grand Ballroom Foyer

Monday, May 8

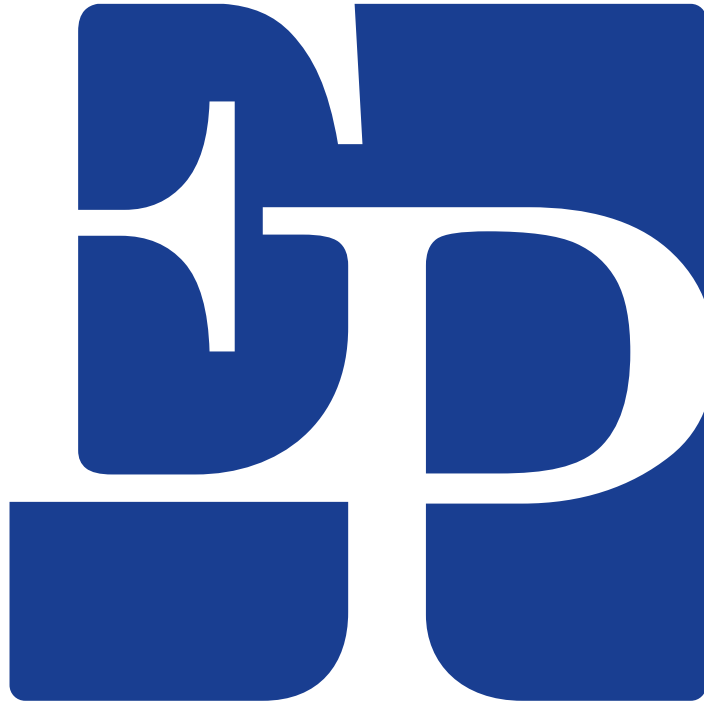
7:30 a.m. – 4:30 p.m.	Registration.....	Grand Ballroom Foyer
7:30 a.m. – 9:00 a.m.	Continental Breakfast.....	Grand Ballroom Foyer
8:30 a.m. – 9:00 a.m.	Welcome, Celebration of New Members	Grand Ballroom A-B
9:00 a.m. – 9:30 a.m.	Refreshment Break (with Exhibitors).....	Grand Ballroom Foyer
9:00 a.m. – 9:30 a.m.	New Member Group Photo Session	
9:30 a.m. – 10:30 a.m.	Featured Speaker: Dr. Robert Ballard	Grand Ballroom A-B
10:30 a.m. – 11:30 a.m.	Business Session/Town Hall	Grand Ballroom A-B
11:45 a.m. – 1:15 p.m.	Plated Luncheon with Roundtables	Galleria
1:15 p.m. – 2:15 p.m.	Concurrent Sessions 1	
2:45 p.m. – 3:45 p.m.	Concurrent Sessions 2	
3:45 p.m. – 4:15 p.m.	Refreshment Break (with Exhibitors).....	Grand Ballroom Foyer
4:15 p.m. – 5:30 p.m.	GS-1: State of the Insurance Market	Grand Ballroom A-B
4:15 p.m. – 5:30 p.m.	GS-2: Bias, Risk and Regulation	Grand Ballroom C-E
6:00 p.m. – 7:00 p.m.	Officers' Reception for New Fellows and their Spouses/Guests	Harbor Ballroom

Tuesday, May 9

7:00 a.m. – 2:00 p.m.	Registration.....	Grand Ballroom Foyer
7:00 a.m. – 8:30 a.m.	Breakfast with Roundtables (end at 7:50 a.m.)	Grand Ballroom Foyer
7:00 a.m. – 7:50 a.m.	CAS Board Member Meet & Greet at Continental Breakfast	CAS Booth
8:00 a.m. – 9:15 a.m.	GS-3: Cyber - State of the Market	Grand Ballroom C-E
8:00 a.m. – 9:15 a.m.	GS-4: Future of Insurance	Grand Ballroom A-B
9:45 a.m. – 10:45 a.m.	Concurrent Sessions 3	
10:45 a.m. – 11:15 a.m.	Refreshment Break (with Exhibitors).....	Grand Ballroom Foyer
11:15 a.m. – 12:15 p.m.	Concurrent Sessions 4	
12:15 p.m. – 1:45 p.m.	Lunch on Your Own	
1:45 p.m. – 4:00 p.m.	Elemental - Wildfire Screening and Q&A Session	Grand Ballroom A-B
1:45 p.m. – 2:35 p.m.	Roundtables/Speed Networking	
3:05 p.m. – 3:55 p.m.	Roundtables/Speed Networking	
4:25 p.m. – 5:15 p.m.	Roundtables	
6:30 p.m. – 10:00 p.m.	Tuesday Night Dinner at the New England Aquarium	

Wednesday, May 10

7:00 a.m. – 11:45 a.m.	Registration.....	Grand Ballroom Foyer
7:00 a.m. – 8:30 a.m.	Breakfast with Roundtables (end at 7:50 a.m.)	Grand Ballroom Foyer
8:00 a.m. – 9:00 a.m.	Concurrent Sessions 5	
9:30 a.m. – 10:30 a.m.	Concurrent Sessions 6	
10:30 a.m. – 11:00 a.m.	Refreshment Break (with Exhibitors).....	Grand Ballroom Foyer
11:00 a.m. – 12:15 p.m.	GS-5: From Actuary to Founder	Grand Ballroom A-B
12:15 p.m. – 12:30 p.m.	Adjournment	Grand Ballroom A-B



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GRAND BALLROOM FOYER EXHIBITS

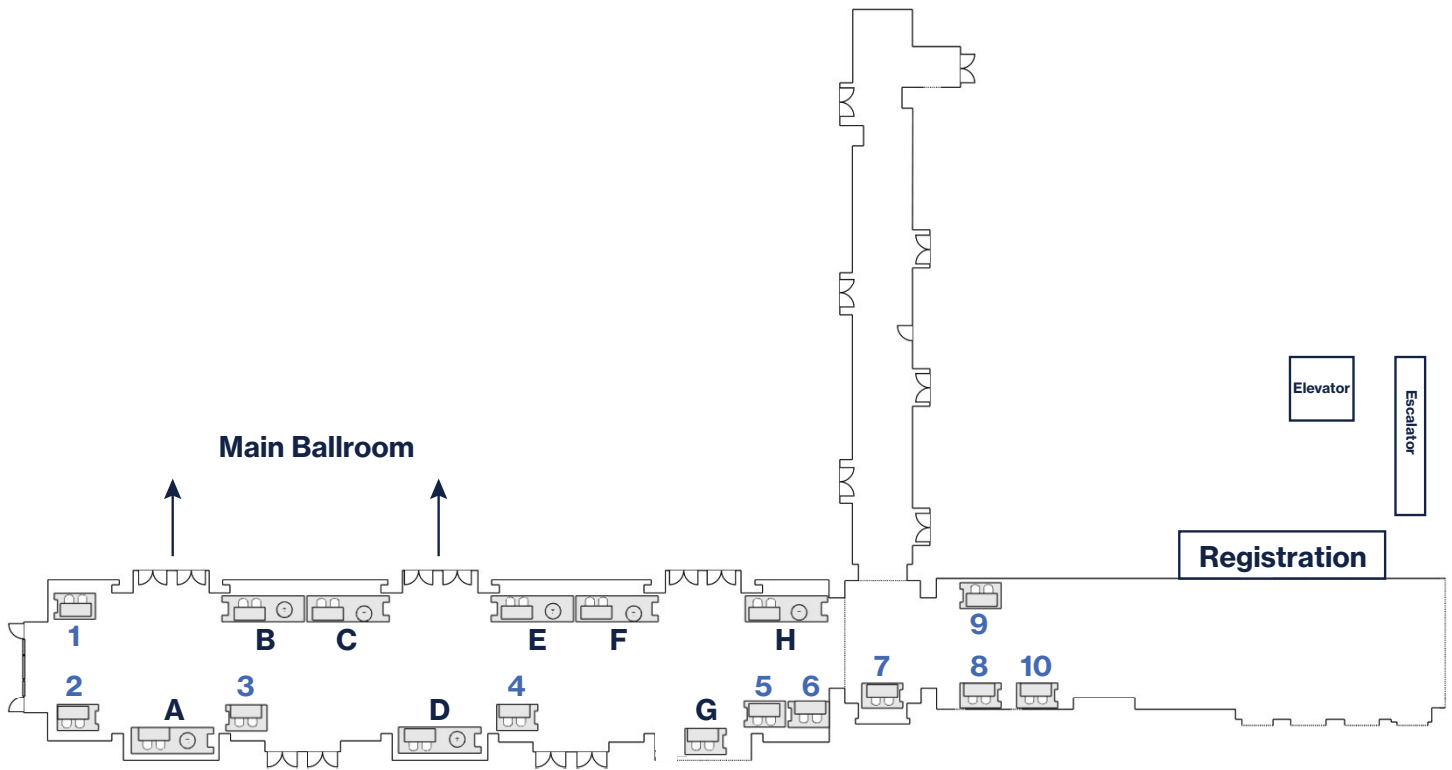


Exhibit Space	Name of Organization
1	DW Simpson
2	American Academy of Actuaries
3	Red Mountain
4	Selby Jennings
5	Dynamo Analytics
6	Oliver James
7	Oliver Wyman
8	CarFax
9	iCAS
10	CAS

Exhibit Space	Name of Organization
A	Actuarial Careers
B	Pinnacle
C	Verisk
D	WTW
E	Akur8
F	Ezra Penland
G	Milliman
H	Pryor Associates

GENERAL AND CONCURRENT SESSIONS

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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

Sessions by Theme

Each concurrent session is grouped by a primary theme, although sessions may cover multiple themes.



Navigate



Predict



Lead

Featured Speaker, Monday, May 8, 9:30 - 10:30 AM

FS-1: Featured Speaker: Robert Ballard, President, Institute for Exploration and Ocean Exploration Trust  

Room: Grand Ballroom A-B

"I grew up wanting to be Captain Nemo from 20,000 Leagues Under the Sea."

Best known for his 1985 discovery of the *Titanic*, Dr. Robert Ballard has succeeded in tracking down numerous other significant shipwrecks, including the German battleship *Bismarck*, the lost fleet of Guadalcanal, the U.S. aircraft carrier *Yorktown* (sunk in the World War II Battle of Midway), and John F. Kennedy's boat, *PT-109*.

While those discoveries have captured the imagination of the public, Dr. Ballard believes his most important discoveries were of hydrothermal vents and "black smokers" in the Galapagos Rift and East Pacific Rise in 1977 and 1979, along with their exotic life forms living off the energy of the Earth through a process now called chemosynthesis.

In addition to being a National Geographic Society Explorer-At-Large and a commissioner on the U.S. Commission on Ocean Policy, Dr. Ballard is the president of the Ocean Exploration Trust (OET), and a Research Scholar at the Woods Hole Oceanographic Institution (WHOI).

Ballard was born June 30, 1942, in Wichita, Kansas, but moved to California at a very young age and grew up exploring the shore in San Diego. Dr. Ballard has a Ph.D. in marine geology and geophysics from the University of Rhode Island's Graduate School of Oceanography (URI/GSO). He spent 30 years at WHOI, where he helped develop telecommunications technology to create "telepresence" for his education initiative, which allows hundreds of thousands of schoolchildren to accompany him from afar on undersea explorations around the globe each year. In 2001, he returned to the URI/GSO where he is presently a tenured professor of oceanography and director of the Center for Ocean Exploration.

Dr. Ballard has 22 honorary degrees and six military awards. He was also a commander in the U.S. Naval Reserve, serving in the Navy from 1967 to 1997. He received the National Geographic Society's prestigious Hubbard Medal in 1996 for "extraordinary accomplishments in coaxing secrets from the world's oceans and engaging students in the wonder of science." In 2014 he was



GENERAL AND CONCURRENT SESSIONS

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elected to the American Academy of Arts and Sciences. Dr. Ballard has published numerous books, scientific papers, and a dozen articles in *National Geographic* magazine. Dr. Ballard also has been featured in several National Geographic television programs, including the record-breaking “Secrets of the Titanic” and, in October 2019, “Expedition Amelia.” In 2021, his autobiography, *Into the Deep*, was released and a National Geographic special streaming on Disney +, “Bob Ballard: An Explorer’s Life,” which is an intimate look at his personal and professional life.

His discoveries also include sunken remains of ships along ancient trade routes in the Mediterranean Sea; two ancient Phoenician ships off Israel, the oldest shipwrecks ever found in deep water; and four 1,500-year-old wooden ships, one almost perfectly preserved in the Black Sea. Dr. Ballard’s Black Sea project seeks evidence of a great flood that may have struck the region thousands of years ago.

His 1997 best-selling book, *Lost Liners*, tells the story of the great transatlantic liners through memorable wrecks he has visited. Dr. Ballard was also a special advisor on Steven Spielberg’s futuristic television show, “Sea Quest DSV.”

An explorer, discoverer and historian, Dr. Ballard has taken fascinating journeys that can teach us a great deal about our past; they have also encouraged others to take tremendous strides in the survey of the undiscovered mysteries of the deep sea.

Monday Luncheon Roundtables, Monday, May 8, 11:45 AM - 1:15 PM

Room: Galleria (Reserved Tables)

☐ **L-RT: Monday Luncheon - Get To Know Us — Abacus Actuaries (empowering Asian actuaries)**  

☐ **L-RT: Monday Luncheon - Get To Know Us — Network of Actuarial Women & Allies (NAWA)**  

☐ **L-RT: Monday Luncheon - Get To Know Us — South Asian Network of Actuaries (SANA)**  

Meet with our affiliate groups at the Monday Luncheon! Tables will be reserved to meet with each group.

Concurrent Sessions 1, Monday, May 8, 1:15 - 2:15 PM

☐ ⚓ CS-7: CAS Admissions Update 🕒

Room: Commonwealth A

Please join the Admissions team for an update on the Admissions Transformation Plan. We will discuss the exciting work that has been completed thus far as well as planned work for next year.

Learning Objectives:

1. How the Admissions Transformation Plan 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.

Speakers: Ashley Zamperini, Director of Certification Products, CAS
Maggie Lyons, Director of Certification Development, CAS
Alicia Burke, Director of Portfolio & Product Development, The CAS Institute

☐ ⚓ CS-13: Deep Dive on The Code of Conduct 2.0 🕒 🗣️

Room: Commonwealth B

When is the last time you read the Code of Professional Conduct? In this popular repeat session format we will take you through it Precept by Precept, in a fun, interactive session with new scenarios. Behaving “professionally” is not always a black-and-white exercise — we operate in many grey areas, so it’s good to discuss in a group how these precepts apply in realistic situations. Our new scenarios will include many situations that may occur in our day-to-day work activities.

Learning Objectives:

1. Familiarity with and understanding of the Code of Conduct.
2. Application of the Code in realistic situations.
3. Background and applicability of Code of Conduct.

Speakers: Mike Speedling, Auditor/Actuary, AXIS Capital
Pat Teufel, Adjunct Professor, University of Connecticut
Ronald T. Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

☐ ⚓ **CS-27: Inflation: Latest Trends and How to Reserve for It** ✍

Room: Commonwealth C

Economic and social inflation are both routinely making the headlines and are expected to remain at elevated levels.

The first speaker will provide the Insurance Information Institute's perspective on these inflationary trends and what we may expect in future years.

The second speaker will discuss key considerations when estimating the relationship between economic and social inflations and claims inflation. He will describe how to amend traditional reserving methods to adjust for historic and future claims inflation.

Learning Objectives:

1. Understand what drives inflation and insurance claims costs.
2. Know how to take account of inflation in reserving.

Moderator: Ben Carrier

Speakers: Dale Porfilio, Chief Insurance Officer, Insurance Information Institute
Jon Sappington, Consultant, WTW

☐ ⚓ ⚓ **CS-15: Do You Have What it Takes to Be in the C-Suite?** ⚓ 🎥

Room: Grand Ballroom A-B

C-suite executives have a range of skills outside of their technical skills. Some of the most important skills are leadership and communication, as well as motivating and managing staff. These skills are typically not learned through textbooks but are acquired through practice. This session will highlight approaches that actuaries can use to develop these skills. This session will also focus on some of the hurdles that different groups may face in the current workplace (e.g. women, younger versus older generations, different cultures, etc.) and discuss approaches for overcoming the hurdles.

Learning Objectives:

1. Better communicate with management.
2. Steps to advance your career.
3. Better manage staff.

Moderator: Jen Jabben

Speakers: Brian Brown, Principal and Consulting Actuary, Milliman, Inc.
Amber Rohde, AVP & Actuary, Travelers
Yvonne Palm, Chief Risk Officer, African Reinsurance Corporation

☐ ⚓ CS-6: Boom or Bust — What's in Store for Insurtech? ⚙️ ▶️

Room: Grand Ballroom C-E

We'll explore general trends in insurtech, such as funding levels (who doesn't want some real data) and dynamics that are driving insurtech, including the catalysts of change.

Learning Objectives:

1. Understand the level of investment in insurtech.
2. Understand the drivers influencing insurtechs.
3. Learn keys to success based on real-world examples.

Moderator: James Thaler

Speakers: Ravi Sharma, Associate Director, WTW
Andrew Johnston, Global Head of InsurTech, Gallagher Re

☐ ⚓ CS-25: GPT and the Actuarial Landscape: An Overview of Large Language Models and Applications ✍️

Room: Otis

Inspired by the recent popularization of GPT models that power OpenAI's ChatGPT, this presentation will provide an overview of large language models and explore their potential applications in the insurance industry. GPT models have achieved groundbreaking results in a variety of natural language processing tasks. We will explain the theoretical foundation of how these models work and examine the potential impacts of GPT and similar models on the insurance industry and actuarial work.

Learning Objectives:

1. Understand how deep learning and transformer models work at a granular level.
2. Explore the applications and impacts of these models in the insurance industry.
3. Learn about how actuaries can modernize their skill sets to adapt to a new software paradigm.

Speakers: Hugo Latendresse, Actuary, Oliver Wyman
Adam Lewis, Partner, Oliver Wyman Actuarial
Sabrina Tan, Actuarial Consultant, Oliver Wyman

📍 ⚓ CS-9: COVID-19 Impact on Workers' Compensation 🌐

Room: Stone

A panel of actuaries from across the country will discuss the characteristics of COVID-19 claims in workers' compensation. The panel will discuss topics including the distribution of claim and loss types, claim severities, claim settlement and other ratios for COVID-19 claims and how these measures vary by state and industry segment.

Learning Objectives:

1. Understand differences in claims patterns for COVID-19 claims relative to non-COVID-19 claims.
2. Understand differences in patterns of COVID-19 claims across states.
3. Understand differences in patterns of COVID-19 claims across industry segments.

Moderator: Reese Mularz

Speakers: Laura Carstensen, Vice President, Actuarial Research, WCIRB of California
Andrea Everling, Vice President of Actuarial Services, MWCIA
Terry Huang, Lead Actuary, NJCRIB

📍 ⚓ ⚓ ⚓ CS-10: Cyber Claims Update 🌐

Room: Webster

Join incident response experts to learn about current cyber claims trends such as business email compromise, fraudulent funds transfers, ransomware and privacy litigation. We'll discuss industry stats, how the claims arise and what organizations can do to prevent or mitigate against common cyber attacks.

Learning Objectives:

1. Overview of current common cyber claims.
2. Deep Dive Into three trends: BEC, ransomware and privacy litigation.
3. How organizations can mitigate against these cyber risks.

Moderator: Andrew Li

Speakers: Lauren Winchester, SVP, Risk + Response, Corvus Insurance
Andy Obuchowski, Digital Forensics and Incident Response, Pondurance

Concurrent Sessions 2, Monday, May 8, 2:45 - 3:45 PM

☐ ⚓ **CS-23: Flip Phones of the Industry: Modernizing Insurance Operations** Ⓢ

Room: Commonwealth A

Personal experience and research findings on insurers' perceptions, priorities and plans related to modernization. Although insurance carriers have taken up the large task of modernizing their operations, most are struggling to fully realize those plans. A survey sponsored by Earnix found that 90% of insurers have not fully developed and executed operation modernization strategies. This session shares personal experiences supplemented with survey findings regarding the urgency and level of prioritization for operations modernization within the industry, technology adoption trends, key obstacles to adoption and pricing/underwriting process efficiency.

Learning Objectives:

1. Describe the market's perceptions about technology modernization.
2. Contrast their current position and perceptions regarding technology adoption and process efficiency with the market position.
3. Apply understanding of market positions on insurance modernization to internal company strategies.

Speakers: Aaron Wright, Director of Strategy, Earnix
Jennifer Fiorita, Chief Product Officer, Electric Insurance Company

☐ ⚓ **CS-19: ERM Best Practices: Managing the Most Uncertain Risk on the Balance Sheet: Loss and Loss Adjustment Expense Reserves** Ⓢ

Room: Commonwealth B

The most uncertain balance sheet item in a property and casualty insurance company balance sheet is generally agreed to be "loss and loss adjustment reserves."

This session will discuss strategies in managing this risk as well as appropriate tools and when they may or may not be warranted.

Could a loss portfolio transfer arrangement (LPT), adverse loss development reserve cover (ADC), or an aggregate stop loss be appropriate under certain situations? How do these work and what are the benefits and disadvantages? In our current inflationary environment, are these tools to manage reserve risk an greater benefit today than yesterday?

This session is intended to discuss these items in an interactive dialogue with the panelists and the audience.

Learning Objectives:

1. Learn best practices in estimating reserve risk.
2. Learn the basics of some tools that may be appropriate in mitigating this risk.
3. Learn the tradeoffs of benefits and disadvantages to using the mitigating tools.

Speakers: Robert Wolf
Raju Bohra, Reinsurance Broker, Gallagher Re
Adam Carvalho, Vice President, Gallagher Re

☐ ⚓ CS-42: Ugly Side of Innovation ⚡

Room: Commonwealth C

Exploring the less glamorous aspects of successful innovation within an organization, this session will focus on processes for generating and selecting ideas to pursue; reasonable balances of in-house development versus reliance on outside data and technology providers; how to monitor, manage, and measure success during and after development; and developing the right tech stack to support all of the above. There will be brief presentations followed by interactive discussion.

Learning Objectives:

1. Select and deploy technologies that enable innovation.
2. Evaluate and communicate whether an innovation initiative is effective.
3. Improve idea flow and prioritize higher potential ideas.

Moderator: Adam L'Italien

Speakers: Christopher Cooksey, Sr. Director of Advanced Analytics, Guidewire
Kimberly Holmes, EVP Chief Actuary, GRS, Liberty Mutual

☐ ⚓ CS-16: Effective Data Visualization for Actuaries ⚡

Room: Grand Ballroom A-B

As actuaries, we are expected to understand the structure and rationale behind complex statistical models. Beyond that, we need to evaluate whether one model is preferred over another in a well-defined business context. Finally, these conclusions must be shared with stakeholders who are then expected to digest and support the actuary's conclusions. Although data visualization is often touted as having maximal benefit for the last step of the process, we contend that it provides value throughout. In this session, Brian Fannin and Jordan Bonner will highlight key actuarial concepts and exhibits that can be better understood through data visualization. R's ggplot2 package will be used to create exhibits that allow for a deeper level of understanding and intuition. By growing comfortable with the value and mechanics of visualization at all stages of the analytics cycle, actuaries will become more facile in communicating with any stakeholder at any stage.

Learning Objectives:

1. Unlock a deeper understanding of complicated concepts through data visualization.
2. Leverage R's ggplot2 package to create compelling actuarial exhibits.
3. Restructure data visualizations to tell the right story for your audience.

Moderator: Meagan Mirkovich

Speakers: Jordan Bonner, Actuary, HSB
Brian Fannin, Research Actuary, CAS

📅 🚢 CS-38: Reserving with Machine Learning 🖋️ 🎥

Room: Grand Ballroom C-E

How is machine learning used for loyalty programs and what can it teach us about insurance claim reserving?

While triangular methods have been a foundational tool for decades, individual claim reserving gives the actuary far more information about changes and trends in the liability. Yet the commonly used individual claim reserving techniques leave some of the most valuable data unexamined.

In this session, we'll cover the benefits of reserving at the individual claim level and describe an approach that sits at the intersection of data science and actuarial science. This session will also introduce a new actuarial tool "the snapshot date triangle" and demonstrate how it can be combined with machine learning to produce a robust and powerful individual claim reserving system. You will learn why the snapshot date triangle was originally developed for estimating loyalty program liabilities and how it can be used in insurance contexts.

Learning Objectives:

1. Describe the advantages of individual claim reserving over aggregate methods.
2. Explain what a snapshot date triangle is and why it's better for machine learning.
3. Convert an accident date triangle to a snapshot date triangle.

Moderator: Voon Lai

Speakers: Julie Hagerstrand, Actuary, KYROS Insights
Len Llaguno, Actuary, KYROS

📅 🚢 CS-14: Do Underwriters Dream of Cyber CATs? 🚫

Room: Otis

"Help us understand the tail" is the most common request that a cyber-dedicated analytics team receives from new and burgeoning writers of cyber (re)insurance. Triple-digit rate changes and accelerating uptake rates have brought a great many new entrants to the cyber market, all needing insight on managing their aggregation risk.

In this session, cyber actuarial and cyber security teams from Gallagher Re will dispel the myth that extreme cyber events cannot be identified, categorized and quantified. A market standard 3-Peril Cyber CAT framework allows actuaries to objectively compare the output of each major Cyber CAT vendor model and contrast these results with their own in house modeling. We will also speak to recent areas of development in Cyber CAT modeling and what potential future Cyber CAT Perils we expect to emerge.

Learning Objectives:

1. Interpret the output of industry leading cyber models using a standardized 3-Peril framework.
2. Identify key modeled tail loss drivers for distinct segments of the cyber market.
3. Hypothesize sources of non-modelled cyber risk and areas of focus for model updates in 2023.

Moderator: Andrew Li

Speakers: Ryan Wilkins, Cyber Reinsurance Actuary, Gallagher Re
Ed Pocock, Senior Cyber Security Consultant, Gallagher Re

GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASSpring

☐ ⚓ CS-28: International Banking ⚔

Room: Stone

This discussion is on the back of developments in recent years where actuaries are increasingly being involved in banking practice in a number of jurisdictions around the world that include South Africa, Australia, North America and the U.K. The objective is to highlight to actuarial professionals the opportunities for applying actuarial techniques in banking and highlight areas where actuaries elsewhere are already currently involved as well as areas where actuaries may be involved. The discussion also leverages the work of the Banking Virtual Forum of the International Actuarial Association that worked on a paper on “Opportunities for Applying Actuarial Techniques in Banking” released in July 2021. Most opportunities for actuaries in banking are typically in risk management areas ranging from credit, market, liquidity and operational risks, and other business risks. Actuaries are already familiar with most methodologies and techniques used to quantify banking risks, which allocate capital and determine product prices. The intention is, therefore, not to develop new methodologies for banking, but to aid understanding of banking products, terminology and regulation, and to identify areas where actuaries are already applying or could apply techniques with which they are already familiar. Most actuaries in general insurance practice who are members of CAS already apply those techniques, such as in designing products, pricing products, and reserving under mortgage insurance and credit guarantee insurance, where risks management models and techniques similar to banking are applicable.

Learning Objectives:

1. Learn the background of actuaries’ involvement in banking, including regulatory changes.
2. Showcase areas where actuaries are currently involved in banking around the world.
3. Develop actuarial education in banking.

Moderator: Ronald T. Kozlowski

Speaker: Michael Tichareva, Actuary, Actuarial Society of South Africa

☐ ⚓ CS-34: Professionalism Scavenger Hunt 🗺️🔍

Room: Webster

Using U.S. Qualification Standards, the Code of Professional Conduct and Actuarial Standards of Practice, we’ll be on a scavenger hunt to find specific provisions and guidance! Join us to talk about professionalism in a new way. Attendees are encouraged but not required to have access to a laptop computer during the session to help them with the scavenger hunt.

Learning Objectives:

1. Interact with the Actuarial Standards of Practice.
2. Earn Professionalism Education credits.
3. Get a head start on 2023 Continuing Education.

Speakers: Sydney McIndoo, Chief Actuary, CedarStone Actuarial
Sasha Wiegand, Head Actuary, Shepherd

General Sessions 1/2, Monday, May 8, 4:15 - 5:30 PM

□ GS-1: General Session: State of the Insurance Market

Room: Grand Ballroom A-B

With record-high inflation, unrealized investment losses, climate change affecting investor sentiment and war in Europe, the year 2022 was unusual. To top it off, Hurricane Ian made landfall in September and caused the most challenging January 1st reinsurance renewal since the World Trade Center terrorist attack. With many business leaders expecting a recession in 2023, how will the insurance industry react? The first speaker will share his forecast for the major lines of business in 2023-24 (will rates keep up with loss trends?). The second speaker will discuss how technology and a more volatile environment is changing the insurance industry (insurtech, mergers, alternative insurance) and the actuarial work.

Moderator: Ben Carrier

Speakers: Brian Brown, Principal and Consulting Actuary, Milliman, Inc.
Matthew Mosher, President & CEO, AM Best Rating Services

□ GS-2: General Session: Bias, Risk and Regulation

Room: Grand Ballroom C-E

Regulators and the insurance industry are beginning to recognize that data, analytics and AI could have unintended bias, and that they require both governance and testing. This has everyone asking: How do you create a governance framework and test your models for unfair discrimination? Come to this session to find out more.

Learning Objectives:

1. Understand the regulation that's evolving around AI, unfair discrimination and bias.
2. Learn what you will need to do to comply with the future regulation on both governance and testing.
3. Learn the basics of testing models for unfair discrimination.

Moderator: Meagan Mirkovich

Speakers: Jessica Leong, CEO, Octogram
Cathy O'Neil, CEO, ORCAA

GENERAL AND CONCURRENT SESSIONS

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Tuesday Roundtables, Tuesday, May 9, 7:00 - 7:50 AM

☐ Chat with the Board Members

Room: CAS Booth

☐ RT-1: Roundtable: Banking

Room: Commonwealth A

As a follow up to Michael Tichareva's banking session, come and discuss how Michael and other South African actuarial colleagues became involved in banking and learn how you too can get involved. Michael will also discuss the Actuarial Society of South Africa's international banking certificate and how actuaries may benefit from taking this banking exam and certification as they transition into banking practice.

Speakers: Michael Tichareva, Actuary, Actuarial Society of South Africa
Ronald T. Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

☐ RT-2: Roundtable: Unlock the Full Potential of Diversity — Building Inclusive Team Cultures

Room: Commonwealth B

It's common knowledge that diverse organizations outperform less diverse ones, but how does an organization go about maximizing the value of diverse teams? Broadly speaking, two things are needed: 1) a commitment to including a diverse array of perspectives in any given discussion, and 2) the culture needs to be inclusive and equitable, and encourage input from everyone in the group. In this roundtable, we'll learn from each other's experiences, challenges, successes and failures in fostering environments that maximize the value diverse teams are able to bring to an organization.

Speakers: Megan Loomis, Senior Actuarial Assistant, Allstate Insurance Company
Jake Roan, Senior Actuarial Assistant, Allstate Insurance Company

General Sessions 3/4, Tuesday, May 9, 8:00 - 9:15 AM

☐ ⚓ **GS-4: General Session: Future of Insurance** 📍 🎥

Room: Grand Ballroom A-B

Three industry experts come together to share their insights and perspectives on the future of insurance. Possessing a wide range of backgrounds, these industry leaders will provide a comprehensive and thought-provoking discussion on the challenges and opportunities facing the industry. Discussion topics will include the use of data analytics and AI in risk assessment and pricing, the impact of insurtech on the traditional insurance model and the role of regulators in shaping the future of insurance. This is a key event for anyone interested in understanding the future of insurance and positioning themselves for success in this exciting and dynamic field.

Learning Objectives:

1. Identify the key trends shaping the future of insurance, and their implications for the industry.
2. Explore the role of Insurtech in transforming the way insurance is purchased and delivered.
3. Evaluate the challenges and opportunities arising from the changing insurance landscape.

Moderator: Isaac Espinoza

Speakers: Andrew Johnston, Global Head of InsurTech, Gallagher Re
Adrian Jones, Partner, HSCM Ventures
Bryan Falchuk, President & CEO, PLRB

☐ **GS-3: General Session: Cyber — State of the Market** 📍 🎥 🗣️

Room: Grand Ballroom C-E

Cyber continues to be one of the most dynamic lines of business in the insurance industry. Cyber has seen record growth, headlined the Wall Street Journal and gone through a market cycle at blazing speeds. The cyber risk environment is ever changing, which makes it an incredibly challenging and engaging line of business in which to operate. Learn what business leaders at every level of the cyber market are experiencing and planning for. This never-been-done state of the market looks to bring in perspectives from all market segments. The first speaker will share perspective from the insurance broker level, the second will share perspective from the MGA/carrier level and the third speaker will share it from the reinsurance broker level.

Moderator: Andrew Li

Speakers: Justyna Pikinsha, Head of Cyber Analytics, Gallagher Re
Madhu Tadikonda, CEO, Corvus Insurance
Lindsay Volpe, Cyber Broker Placement Specialist, Arthur J. Gallagher & Co.

Concurrent Sessions 3, Tuesday, May 9, 9:45 - 10:45 AM

📌 ⚓ **CS-21: ESG in Insurance: From Vision to Sustainable Impact** ⚓

Room: Commonwealth A

Environmental, social and governance (ESG) is a fast-evolving arena presenting a wide array of challenges and opportunities. In this session, participants will learn what's at stake with ESG, get equipped through examples on how to examine and create impactful solutions for a more sustainable future of insurance, social-economic and environmental systems.

Participants will gain knowledge of front-and-center issues shaping the evolution of ESG in insurance, including:

- Public policy and regulation call for coordinated solutions.
- Growing stakeholder awareness and expectation; board-level vision and support.
- Integration to insurance core values, long-term goals and sustainable business model.
- Transition to a zero/low carbon society and the role insurance plays in it.
- Recognition of areas that require contribution from insurance professionals as a part of coordinated solutions.
- Impacts of extreme natural events on insurance portfolios' insurable risks and perils, changes in geographic and industry mix.
- Quantification of risks, losses and financial impacts from extreme events.
- Creation of a sustainable insurance marketplace through the: availability and affordability of insurance, insurance rates affected by ESG factors, measuring transition risks and designing innovative insurance solutions that can help.

Learning Objectives:

1. Recognize and explain the importance and value of ESG strategies in insurance.
2. Develop thinking around insurance solutions that will positively support ESG goals.

Moderator: Michelle Cui

Speakers: Frederic Matte, Americas ESG/Climate Leader - Insurance Consulting & Technology, WTW
Jonathan Charak (Virtual Speaker), Vice President - Emerging Solutions, Sustainability Underwriting, Zurich North America
Tom Larsen, Senior Director Risk and Hazard Solutions, CoreLogic, Inc.

📌 ⚓ **CS-11: Cyber Tech-Enabled Underwriting** 🖋️

Room: Commonwealth B

Come find out how some of the most thoughtful risk selectors today in cyber approach the industry's most dynamic line of business.

Learning Objectives:

1. The underwriting perspective on cyber.
2. Deep dive into scanning-based tools.
3. The power of partnership between innovation and expertise.

Moderator: Andrew Li

Speakers: Chris Hedenberg, Data Scientist, Corvus Insurance
Peter Hedberg, Vice President, Underwriting, Corvus Insurance

☐ ⚓ ⚓ CS-2: Introduction to Accurate GLM ✎

Room: Commonwealth C

In traditional GLM modeling, categorical features are often treated with one-hot encoding. However, this method of encoding removes any ordering information inherent in the data. With accurate GLM, we propose to utilize an alternative encoding approach which allows us to preserve the ordering information. In this presentation, we will introduce the accurate GLM approach to modeling and discuss what motivated the approach. We will illustrate the approach through simulated data modeling exercises and case studies.

Learning Objectives:

1. Understand the concepts and motivations behind the accurate GLM approach
2. Explore how to set up the data using the accurate GLM approach
3. Explore how to carry out modeling using the accurate GLM approach

Moderator: Michael Chen

Speakers: Gary Wang, Senior Consulting Actuary, Pinnacle Actuarial Resources, Inc.
Liam McGrath

☐ ⚓ CS-39: Shaping the Actuarial Function of the Future 🚫 📺 🎤

Room: Grand Ballroom A-B

To solve today's complex business problems and anticipate tomorrow's challenges, leading actuarial functions must embrace new technologies and processes to improve decision support, drive efficiency, and accelerate speed to market. Our panelist will share perspectives and experience on how actuarial leaders can empower their teams to think differently, modernize their capabilities and leverage analytics to advance the business strategy.

Learning Objectives:

1. Develop and design strategies to modernize the actuarial function.
2. Understand approach to leading change initiatives or programs.
3. Determine and evaluate success of modernization programs.

Moderator: Jen Jabben

Speakers: Steve Armstrong, Chief Actuary, Allstate Insurance Company
Kristen Bessette, Chief Actuary, Data and Analytics Officer, QBE
Scott Henck, Actuary, Chubb

📌 🚩 CS-29: Marijuana Decriminalization & Auto Risks 🖋️ 🎥

Room: Grand Ballroom C-E

Public acceptance of marijuana continues to increase in the U.S., with more states considering legalization each year. The first half of this talk will assess the impact of marijuana legalization on highway safety – by examining trends in collision claims, injury crash rates and fatal crash rates. Although crashes trended higher in general after legalization, the results varied by state, as well as by crash severity and the statistical methodology employed. Then again, studies attempting to directly link marijuana use to crash risk have so far been inconclusive. So, unlike the case for alcohol, we cannot yet accurately predict the effects of increased marijuana use.

The second half of the talk will present results from a study released by the Casualty Actuarial Society (CAS) and the Canadian Institute of Actuaries (CIA) which analyzes the impact of marijuana decriminalization on the vehicular accident experience in Canada and the United States. The research uses several different statistical methods applied to publicly available data to understand the effects.

Learning Objectives:

1. Understand trend and seasonal variations in Canadian and United States traffic accidents after the change in legal status for cannabis.
2. Learn the novel data-driven methodologies used to support machine learning algorithms for finding patterns in the report's data.
3. Understand why temporal patterns of human activity (such as yearly, weekly and daily cycles) and inclement weather are better predictors of the vehicle accident experience than marijuana decriminalization.

Moderator: Jeremy Shoemaker

Speakers: Brian Fannin, Research Actuary, CAS

Chuck Farmer, Vice President, Research, Insurance Institute for Highway Safety

📌 🚩 CS-31: Medical Professional Liability Update 🗑️ 🎤

Room: Otis

This session will look at the state of the medical professional liability (MPL) market and the headline challenges the market is facing. We will discuss 2022 MPL insurance industry financial results and the key drivers of these results. We will also discuss trends in claim frequency and severity and how the industry is responding by way of pricing. The session will then provide the MPL Association's and Conning's perspective on challenges MPL insurers are facing, including changes in health care that are impacting insurers. The session will conclude with a view of what the short- and long-term future might hold for the MPL market.

Learning Objectives:

1. How the MPL industry has been performing from a financial standpoint.
2. Emerging risks that are impacting the medical malpractice insurance industry.
3. Some alternatives for how MPL writers can meet the challenges they face.

Speakers: Robin Davis, Director, Insurance Research, Conning

William Burns, VP, Research and Analytics, MPL Association

☐ ⚓ ⚓ CS-22: Evaluating and Selecting a Bayesian MCMC Model ✎

Room: Stone

This session will walk through the process of evaluating and selecting a Bayesian Markov chain Monte Carlo (MCMC) model from amongst a set of models. The models were created to develop loss reserve estimates. Sometimes, one can have multiple models that produce plausible results and knowing how to select between those models to find the one that is the best model or choosing to use model averaging may not be clear the first time one uses Bayesian MCMC. Occasionally, a model will generate warning messages indicating that there were numerical problems in the iterative process used to solve for parameters that would make using a given model unsafe and there will be an example to illustrate what that looks like and the diagnostic tools available. The intent of the session is to offer examples to those new to using Bayesian MCMC to illustrate how to use the tools at hand to help with the decision process. There will be some comments during the presentation to point out how the current set of tools has helped make working in the Bayesian MCMC modeling environment more practical in recent years. The session will not cover the theory underlying the tools that are demonstrated.

Learning Objectives:

1. Compare reliability of forecast estimates from Bayesian MCMC models using information theory measures.
2. Use ShinyStan to analyze the integrity of Stan-generated parameter estimates from Bayesian MCMC models.
3. Design alternative model structures for loss reserve estimates for Bayesian MCMC using brms package.

Moderator: Meagan Mirkovich

Speaker: Michael Larsen, Retired

☐ ⚓ ⚓ CS-20: ERM Case Study (Interactive Participation): Risk/Reward Decision-Making Strategy Considering ERM Standards of Practice ⚙

Room: Webster

In this session we will be discussing two to three case studies with interactive participation. The panelists will then lead the audience in corresponding discussions as the case studies relate to some of the ERM actuarial standards of practice. Join us in an interactive discussion and on-the-spot polling.

Learning Objectives:

1. Concepts of capital adequacy assessment and how they relate to Actuarial ERM ASOPS.
2. Concepts of risk treatment and how they relate to Actuarial ERM ASOPS.
3. Concepts of risk and strategy and how they relate to Actuarial ASOPS.

Speakers: Robert Wolf

Mike Speedling, Auditor/Actuary, AXIS Capital

Concurrent Sessions 4, Tuesday, May 9, 11:15 AM - 12:15 PM

☐ ⚓ CS-40: The Price Is Right: An Introduction to Pricing Novel Products and Competitive Analysis ✍

Room: Commonwealth A

Whether you are pricing something that is new to you or new to the entire industry, what strategies and methods should you keep in mind when developing new rates and rating plans? In this session, we will discuss the advantages and disadvantages of different pricing methodologies that can be leveraged when developing new products. We will also discuss ways in which competitive analyses and other data can be leveraged during the pricing process.

Learning Objectives:

1. Identify the steps needed and methodologies employed to develop rates for a new product.
2. Understand ways in which competitor data can be leveraged to develop rates and rating plans.

Moderator: Reese Mularz

Speakers: Eric Krafcheck, Principal & Consulting Actuary, Milliman
Katie Pipkorn, Consulting Actuary, Milliman

☐ ⚓ CS-24: Got My Credentials, What's Next? ⚓

Room: Commonwealth B

This session will introduce concepts and ideas for career development and progression on non-technical skills. The speakers will deliver a presentation on career paths and self-advocacy, followed by a panel Q&A.

Learning Objectives:

1. Self-Advocacy.
2. Career Pathing.
3. Goal Setting.

Moderator: Jianyu Chen

Speakers: Charlie Lei, VP Actuary, Head of U.S. Reserving, Ascot Group
Amber Rohde, AVP & Actuary, Travelers
Charles Zhu, Director, Actuarial, Roamly

📌 ⚓ CS-5: Applying Credibility in Penalized Regression 🖋️

Room: Commonwealth C

One common barrier to employing GLM modeling is the lack of sufficient data. This limitation often comes from the combination of the considerations in ASOP No. 25 “Credibility Procedures” and the fact that GLMs assign full credibility to the data. In this session, we will explore the possibilities of credibility-based regression by expanding the intended purpose of modeling analysis from producing a single model as output to producing data insights, credible differences and a range of reasonable models. This session will include practical use cases of penalized regression on large, medium, and small datasets and supporting considerations to make these analyses actuarially sound. Participants are expected to participate by completing a rubric to identify possible additional use cases of penalized regression models on current or future projects at their company or in their role.

Learning Objectives:

1. Explain how and why ASOP 25: Credibility Procedures applies to penalized regression.
2. Identify three stages of modeling application, and be able to explore these applications outside of the session with complements of credibility.
3. Identify applications of penalized regression on varying sizes of data that follow the guidelines of ASOP 56: Modeling.

Speaker: Thomas Holmes, Head of U.S. Actuarial Data Science, Akur8

📌 ⚓ CS-35: Professionalism: Using ASOPs to Model 🌐 🎥 🗣️

Room: Grand Ballroom A-B

This session will go over ASOP 38 “Catastrophe Modeling,” ASOP 56 “Modeling” through a panelists discussion and audience participation.

Learning Objectives:

1. ASOPs applicable to modeling.
2. Differences among modeling-related ASOPs.
3. Evaluation of what constitutes a model.

Moderator: Ronald T. Kozlowski

Speakers: Todd Hess, Risk Manager, Swiss Re
Andrew Dalgaard, Actuary, Allstate Insurance Company
Mike Speedling, Auditor/Actuary, AXIS Capital

☐ ⚓ **CS-4: Anatomy of a Ransomware Claim** Ⓢ 🎥

Room: Grand Ballroom C-E

Ransomware events are the most impactful cyber attacks. In this session, you'll learn how ransomware attacks happen and how organizations respond to them. At the end of the session, you'll know why they are so expensive and what contributes to the frequency and severity of these attacks.

Learning Objectives:

1. How a ransomware attack occurs.
2. How organizations respond and recover to ransomware.
3. What contributes to the cost of a ransomware claim.

Speakers: Jason Rebholz, CISO, Corvus Insurance
 James Gimbi, MOXFIVE

☐ ⚓ **CS-36: Property Cat: State of The Market** Ⓢ

Room: Otis

This session will take a retrospective look back at January 2023 property cat renewals with a review of market pricing, capacity, program changes and influences on the market such as inflation, Hurricane Ian and secondary perils. The effect of market conditions on submission logistics and the role of catastrophe modeling will also be explored. The session will then turn to the current state of the market for spring renewals and expectations for 2023, with commentary on upcoming catastrophe model changes.

Learning Objectives:

1. Understand what transpired in the property catastrophe market for January 2023 renewals and why.
2. Explore the current state of the market and expectations for the 2023 property catastrophe market.
3. Be aware of upcoming catastrophe model changes that will impact 2023 property catastrophe renewals.

Speaker: Krista Lienau, Head of North America Analytics, Guy Carpenter & Co.

☐ ⚓ CS-32: Mitigation That Matters: A Wildfire Case Study ⚓

Room: Stone

In recent years, insurers have been increasing rates, non-renewing risks and refining their rating plans to account for wildfire risk. While these actions may address insurer profitability, they do little for the homes in high-risk areas who see premium increases, policy non-renewals, and commonly are denied new policies by insurance companies even if mitigation efforts have been put in place. Hurricane mitigation credits have long existed in insurance rating plans in exposed states, but wildfires have only recently become financially significant enough to necessitate similar pricing actions from the insurance industry. To date, few companies offer discounts for property-specific home hardening or community mitigation efforts. For the companies who have filed such discounts, they are often modest and judgmentally quantified. Appropriate quantification of the impacts of various mitigation efforts can benefit both insurers and consumers, as well as inform public policy and public safety decisions. In this session we will discuss actuarial considerations and approaches for developing wildfire mitigation credits and the results of the wildfire mitigation case studies presented in the paper Catastrophe Models for Wildfire Mitigation: Quantifying Credits and Benefits to Homeowners and Communities.

Learning Objectives:

1. Discuss actuarial and practical considerations applicable to the development of wildfire mitigation credits.
2. Review results individual property mitigation and community-level mitigation analyses.
3. Design a mitigation study analysis.

Speakers: Taylor Deacon, Actuarial Analyst, Milliman
Michael Glavan, Actuarial Analyst, Milliman

☐ ⚓ ⚓ CS-30: Medical Malpractice — Using Analytics to Underwrite and Price Physicians Insurance ⚓

Room: Webster

The panelists will first describe the historical approach used in the industry to underwrite and price malpractice risk for physicians. The discussion will touch on some of the strengths and weaknesses of this approach and how it may contribute to the “cycle” in MPL. The panelists will then discuss a new analytical approach developed by Preverity that matches premiums and risk, based on physicians’ practice behaviors.

Learning Objectives:

1. Understand how MPL insurance for physicians has historically been underwritten and priced, and the strengths and weaknesses of this approach.
2. Understand a new pricing model that uses medical billing data to evaluate the risk of physicians for malpractice purposes.

Speakers: William Burns, VP, Research and Analytics, MPL Association
Matt Koerlin, Chief Product Office, Preverity, Inc.

GENERAL AND CONCURRENT SESSIONS

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Elemental Movie and Q&A, Tuesday, May 9, 1:45 - 4:00 PM

❑ N/A: Elemental Film Q&A Session

Room:

SPECIAL IN-PERSON ONLY SCREENING of the new documentary, Elemental, about wildfire in the American West. Since 2017 wildfires have impacted the insurance industry like never before. As industry professionals, you likely have experience in modeling or pricing wildfire-related risks, or you may have witnessed the devastation wildfires can bring to communities. We think it is important to have opportunities for our industry to continue to learn and converse about wildfire — to share ideas, voice concerns and work together to solve some of the challenges brought by this peril. While Elemental has been shown at film festivals across the country this year, we wanted to give you a convenient opportunity to experience the movie and participate in a discussion with the goal of sparking conversation about the topics raised by the short film.

Speakers: Michael Glavan, Actuarial Analyst, Milliman
Taylor Deacon, Actuarial Analyst, Milliman
Michele Steinberg, NFPA
Trip Jennings, Elemental Director

Tuesday Roundtables, Tuesday, May 9, 1:45 - 2:35 PM

❑ RT-5: Roundtable: CAS Admissions Update

Room: Otis

Speakers: Ashley Zamperini
Maggie Lyons
Alicia Burke

❑ RT-4: Roundtable: Bias, Risk and Regulation – How This Impacts You and What You Can Do

Room: Stone

As a follow up to the general session “Bias, Risk and Regulation,” come and join this round table with CAS Past President Jessica Leong. Regulators and the insurance industry are beginning to recognize that data, analytics and AI could have unintended bias and require both governance and testing. This has everyone asking: How do you create a governance framework, and how do you test your models for unfair discrimination? The general session will begin this discussion, and then come to the roundtable to ask questions, dive deeper and come out with practical take aways on how this could impact you.

Speaker: Jessica Leong, CEO, Octogram

❑ RT-3: Roundtable: ESG in Insurance

Room: Webster

Speakers: Frederic Matte, Americas ESG/Climate leader - Insurance Consulting & Technology, WTW
Tom Larsen, Senior Director Risk and Hazard Solutions, CoreLogic, Inc.
Michelle Cui, Director, WTW

GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASSpring

Tuesday Roundtables, Tuesday, May 9, 3:05 - 3:55 PM

❑ RT-9: Roundtable: New ACAS Roundtable: The Associate's Perspective

Room: Commonwealth A

New Associates discuss their decisions to pursue careers in P&C and offer the CAS advice on positioning itself as the best career path for aspiring actuaries, improving its connection to exam candidates and better engaging new members in the CAS community. Limited to New Associates only.

Speakers: Shelby Wolff, Membership and Volunteer Engagement Manager, CAS

❑ RT-8: Roundtable: State of the Insurance Market

Room: Otis

The year 2022 was an unusual one with record high inflation, a dramatic increase in settlements for several coverages (e.g., commercial auto), a war in Europe and several recent bankruptcies (e.g., regional banks and cryptocurrency firms). While rates for many coverages increased dramatically in 2019-2022, did the rates keep pace with loss costs? We will discuss the outlook for several insurance coverages in 2023-2024.

Speaker: Brian Brown, Principal and Consulting Actuary, Milliman, Inc.

❑ RT-7: Roundtable: Effective Data Visualization for Actuaries

Room: Stone

Data visualization is often touted as having maximal benefit in communication with nontechnical stakeholders. However, its utility in supporting actuarial analysis workflow is less celebrated. What do others think? When do you use visualization most? Least? When does it help and when does it get in the way?

Speakers: Brian Fannin, Research Actuary, CAS
Jordan Bonner, Actuary, HSB

❑ RT-6: Roundtable: GPT and the Actuarial Landscape — An Overview of Large Language Models and Applications

Room: Webster

GPT models, such as OpenAI's ChatGPT, have achieved groundbreaking results in a variety of natural language processing tasks. Large language models can accelerate traditional actuarial work and support predictive modeling use cases that were not possible before. This Roundtable will explore the potential applications of large language models in the insurance industry as well as their limitations.

Speakers: Hugo Latendresse, Actuary, Oliver Wyman
Adam Lewis, Partner, Oliver Wyman Actuarial

GENERAL AND CONCURRENT SESSIONS

Join the Conversation on Twitter #CASSpring

Tuesday Roundtables, Tuesday, May 9, 4:25 - 5:15 PM

❑ RT-12: Roundtable: IFRS17 🗣️

Room: Otis

Challenged by issues in IFRS17? Come talk with actuaries implementing IFRS17.

Speakers: Ralph Blanchard, recently retired, formerly worked for The Travelers Companies, Inc.

❑ RT-11: Roundtable: More on Marijuana & Auto Risks 🗣️

Room: Stone

As a follow up to the session discussing “Marijuana Decriminalization & Auto Risks,” we’ll get into the research on crash risk after using marijuana. Topics to be discussed include how to measure/detect impairment due to marijuana, driver behavior while under the influence of marijuana and the combined effects of marijuana and alcohol.

Speakers: Chuck Farmer, Vice President, Research, Insurance Institute for Highway Safety

❑ ⚓ RT-10: Roundtable: Commercial Lines Modeling Theory to Practice 🗣️

Room: Webster

In this roundtable, we will have an open discussion about challenges and best practices for building GLMs in commercial lines. Topics will depend on audience interest, but may include varying exposure bases, handling endorsements, inclusion of credit scores/tiering models, adjusting for debits and credits, building a GLM on top of ISO rating, loss development for claims made versus occurrence basis and how to handle third-party data.

Speakers: Justin Milam, Actuary, WTW
Helen Zhao, Associate Director, WTW

Wednesday Roundtables, Wednesday, May 10, 7:00 - 7:50 AM

❑ RT-13: Roundtable: On a Wing and More Than a Prayer: How the Insurance Industry Can Support Pilot Medical Certification 📍🎤

Room: Commonwealth A

A recent literature review identified limited writings on aviation insurance with wider applicable literature from health and life insurance. Key stakeholders in the aviation insurance industry and related lines of insurance were identified, including insurance companies, brokers and reinsurers. The low-frequency, high-loss nature of aviation incidents results in insurers sharing risk with other insurers by splitting coverages.

The Federal Aviation Administration (FAA) and the company MITRE are conducting research to improve pilot medical certification. Many existing certification standards are based on long-held assumptions about medical conditions and the risks they pose to pilot performance. The FAA wants to revisit these assumptions, given the evolving role of the human in advanced, automated flight decks. MITRE will identify approaches to forecasting such as employed by insurance companies to aid the Office of Aerospace Medicine to evolve medical certification.

This roundtable is designed to provide insight and information on methods the commercial insurance industry might use to determine acceptable pilot medical risk. We also want to elicit your thoughts on how the insurance industry would comprehensively approach the problem of pilot medical certification.

Speakers: Rob Lieberthal, Principal, MITRE
Brian Fannin, Research Actuary, CAS

❑ ⚓ RT-14: Roundtable: Construction Defects 📍🎤

Room: Commonwealth B

Come talk about construction defect reserving issues. We'll start by asking what the audience wants to cover and then talk to those points. This may include data segmentation, data issues, reserving methods and trends in assumptions. We can talk about recent hurdles in analyses and discuss how the actuary tackled those issues.

Speaker: Ronald T. Kozlowski, Lead Consultant, RTK Actuarial + Professional Services

❑ RT-15: Roundtable: Shaping the Actuarial Function of the Future 🚫🎤

Room: Commonwealth C

Speakers: Steve Armstrong, Chief Actuary, Allstate Insurance Company
Kristen Bessette, Chief Actuary, Data and Analytics Officer, QBE

Concurrent Sessions 5, Wednesday, May 10, 8:00 - 9:00 AM

☐ ⚓ CS-26: Growth Of The P&C Fronting Carriers 🌐

Room: Commonwealth B

This sessions begins with a short history and the evolution of the state of the market for P&C fronting carriers, especially its role in allowing MGAs, insurtechs and other start-ups to get to market. MGAs/MGUs are one of the fastest growing parts of the P&C market, but even within the dynamic MGA/MGUs ecosystem the front and risk participating fronts are growing even faster.

Learning Objectives:

1. Have a basic understanding of what a fronting carrier is.
2. Know what a fronting carrier does for MGAs and reinsurers.
3. Know some of the current market trends in the fronting space.

Speakers: Kim Ho Lo, Chief Actuary, Obsidian Insurance Holdings
Somil Jain, SVP Product and Analytics; Head Actuary, Steadily

☐ ⚓ CS-12: Decoupling Selected Ultimate from Deterministic 🖋️

Room: Commonwealth C

We have all been approached by the CFO or chief claims officer asking how much IBNR is available to cover a particular loss. We have all seen lines of business where almost nothing happens quarter after quarter...until something does happen. Our actuarial methods expect something to happen each and every quarter, and they react as if that expectation actually happened. Is it possible to deploy our methods so that they ease into their reaction to what is emerging?

The running joke with reserving actuaries is, "I can't tell you exactly what the number is, but I can exactly tell you what the number is not." But most of our approaches drive towards generating a single central estimate.

This presentation looks to turn that approach on its head. It discusses the range of "right" numbers and where the numbers start to become "wrong" (boundary conditions). It considers what happens if the prior estimate was maintained until one of these boundary conditions is breached.

Learning Objectives:

1. Describe some real world communication and information challenges with reserving for volatile lines.
2. Apply the selection of an ultimate from an alternative angle/view.
3. Summarize the alternative angle/view to see what level of management information can be obtained.

Speaker: Timothy Pratt, Consulting Actuary, WTW

GENERAL AND CONCURRENT SESSIONS

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📦 ⚓ ⚓ **CS-8: Commercial Lines Modeling: Theory to Practice** 🖋️ 🎥

Room: Grand Ballroom A-B

Transitioning from theory to practice with generalized linear models (GLMs) can be challenging. This is especially true with many commercial lines of business, where the exposures are not as homogeneous as they are for personal auto or homeowners. In this session, we will discuss best practices for building GLMs in commercial lines. Topics to be covered include varying exposure bases, handling endorsements, including credit scores/tiering models, adjusting for debits and credits and building a GLM on top of bureau rating, as well as loss development for claims made versus occurrence basis and how to handle third-party data.

Learning Objectives:

1. Describe the challenges of modeling commercial lines of business.
2. Summarize potential solutions to the challenges with modeling commercial lines.
3. Illustrate how to navigate business considerations when building GLMs for commercial lines.

Moderator: Ravi Sharma

Speakers: Justin Milam, Associate Director, WTW
Helen Zhao, Director, WTW

📦 ⚓ ⚓ **CS-17: Emerging Risk: Identifying Emerging Risk While Differentiating Unknown Unknowns with Elephants in the Room** 🗺️ 🎥

Room: Grand Ballroom C-E

In recent years, there have been some watershed events that have changed traditional thinking about risk, at least for a period. Did we think of 9/11 on September 10, 2002? Did we think of pandemics before March 2020. Were they truly unknown unknowns that just happened (black swans) or were they elephants in the room? Were they predictable? This session will take you on an interactive excursion of the current risk environment. We are saving a seat for you on this excursion. The plan is for interactive dialogue amongst the speakers and the audience in an interactive discussion.

Learning Objectives:

1. Learn concepts of risks that are black swans.
2. Learn concepts of risks are elephants in the room.
3. Learn considerations in differentiating swans from elephants and consider today's elephants in the room.

Moderator: Bob Wolf

Speakers: Bill Wilkins, Vice President, Chief Risk and Analytics Officer, Safety National
David Ingram, Senior ERM Consulting Actuary, Actuarial Risk Management

☐ ⚓ **CS-43: Unfair Bias in AI Models: Essential Knowledge and Mitigation Approaches** Ⓢ

Room: Otis

Artificial intelligence (AI) and increasingly complex predictive models are becoming more common in insurance processes as tools data exploration, insight development and decision-making. At the same time, the industry is attending more to complicated issues of societal bias and its potential impacts on insurance data and models. This session will discuss sources of bias in modern insurance data, outline the distinction between data bias and model bias and propose a potential governance framework to mitigate bias throughout the AI modeling process, from ideation to implementation.

Learning Objectives:

1. Review historical events and circumstances that could give rise to bias in AI models.
2. Understand differences between data bias and model bias and key sources of each bias type.
3. Employ risk assessment and governance frameworks to address model and data biases.

Speakers: Mallika Bender, Diversity, Equity & Inclusion Staff Actuary, CAS
 Sara Jordan, AI Governance Senior Manager, PwC

📌 ⚓ CS-3: An Overview of Insurance Associated Emissions 🌐

Room: Stone

Given the increasing demand from the insurance industry and other stakeholders for tools to measure and report greenhouse gas (GHG) emissions, there is a need to develop a set of global, standardized methodologies for measuring and disclosing the GHG emissions associated with insurance policies. This session will introduce the key concepts insurance professionals need to know in relation to Insurance Associated Emissions (IAE). Specifically the session will cover the following:

- Overview of GHG emissions, including categorization of emissions into scopes.
- Overview of the Partnership for Carbon Accounting Financials™ (PCAF) 2022 publication of the “Insurance-Associated Emissions Standard.”
- Overview of methodological guidance for measurement and disclosure of GHG emissions associated with commercial and personal motor lines.
- Overview of the regulatory landscape and relevant industry groups such as the Net Zero Insurance Alliance (NZIA).
- Overview of the NZIA IAE Target Setting Protocol, expectations and recognition of data limitations.
- Understanding of what new regulations and increasing stakeholder expectations mean for the actuarial profession.

Learning Objectives:

1. Establish a baseline understanding of GHG Scope 1, 2 and 3 emissions along with a regulatory and policy overview. Understand the current landscape of new regulations and developing stakeholder expectations in relation to GHG quantification and disclosure.
2. Understand the Partnership for Carbon Accounting Financials (PCAF) methodology for Insurance Associated Emissions quantification and what data is required to calculate an insurer's Scope 3 emissions.
3. Develop an understanding of the Net Zero Insurance Alliance (NZIA) along with its most recent public consultation on the alliance's first Target-Setting Protocol.

Speakers: Graham Hall, Director, Risk Modeling Services, PwC
 Neha Srivastava, Risk Modeling Services, PwC
 Kyle Austin, Risk Modeling Services, PwC

GENERAL AND CONCURRENT SESSIONS

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☐ ⚓ **CS-41: The Road to Vehicle Automation from an Insurance Perspective** ✍

Room: Webster

Insurance Institute for Highway Safety (IIHS) and Highway Loss Data Institute (HLDI) researchers have recently completed groundbreaking research that significantly expands our understanding of the impact of advanced driver assistance systems (ADAS) and driving automation on highway safety and auto insurance. Currently, the most advanced vehicles for sale in the U.S. have Level 2 automation, but the effect on claim frequency is mixed for these systems. The impact of these systems on repair costs and collision claim severities is complex. The enabling sensors can be expensive when damaged because in addition to being replaced, they often need to be recalibrated. However, a deep look at the affected claims has revealed that at least some of the changes in claim severities are due to mean shifting related to the operational speeds of the systems. Finally, the variability in effectiveness of advanced driver assistance systems by vehicle age, driver age, mileage and registered vehicle density will be examined.

Learning Objectives:

1. Differentiate between different levels of automation and the insurance loss results associated with these technologies, as well as understand the types of crashes that automation can and cannot prevent.
2. Assess collision and PDL severities for different technologies to determine if they are caused by the technology itself or a shifting of the average.
3. Recognize that insurance loss results for advanced driver assistance systems vary by vehicle age, driver age, mileage, and registered vehicle density.

Speaker: Kay Wakeman, Director of Insurance Outreach, IIHS-HLDI

Concurrent Sessions 6, Wednesday, May 10, 9:30 - 10:30 AM

☐ ⚓ ⚓ **CS-18: ERM Best Practices: Building a Balanced Risk Profile in the Light and in the Dark** ⚓

Room: Commonwealth C

Under a prudent ERM platform, a company should have stated risk appetites, risk tolerances and stated strategic goals. This session is intended to be discussion on best practices of how to manage and keep a balanced risk profile, in light of, sometimes conflicted goals relative to a company's ERM structure. Considering that risks can be both in the dark and the light, this can be challenging. Join us in an enlightening and interactive discussion.

Learning Objectives:

1. Learn concepts of risk appetite and risk tolerance.
2. Learn concepts of risk limits and risk profile.
3. Learn Considerations and challenges of balancing risk profile with intended strategy.

Speakers: Bill Wilkins
David Ingram

📌 ⚓ CS-33: Predicting Liability Losses for Autonomous Driving 🎤 📺

Room: Grand Ballroom A-B

Autonomous driving technology has made significant progress in the U.S. in recent years. Several companies have rolled out robotaxi and driverless delivery in many cities. Autonomous driving has created a unique and interesting challenge for actuaries to assess and quantify on-road liability exposure. Limited experience, lack of consistent regulations among states, and evolving technology are among the issues that actuaries have to deal with in assessing the on-road liability exposure. In this session, Cruise Actuarial and Risk Analytics staff will provide an overview of their actuarial analysis of on-road liability exposures for Cruise's autonomous vehicle fleet and operations on public roads and a framework to quantify frequency and severity in different markets. In the process, we will discuss the unique aspects of actuarial analyses for autonomous driving and also share what roles actuaries can play in expediting deployment of autonomous vehicles.

Learning Objectives:

1. Educate the audience about potential liability exposure for autonomous driving.
2. Share our current approach on how to assess the liability exposure with limited data.
3. Solicit feedback from the audience on the analytical approach.

Moderator: Tetteh Otuteye

Speakers: Corey Rousseau, Actuary Partner, Cruise
Rafael Costa, Actuary Partner, Cruise

📌 ⚓ CS-45: What is IFRS 17 and Why Should You Care 🎤 📺

Room: Grand Ballroom C-E

January 1, 2023, is an important date for many insurers all around the world. It marks the beginning of IFRS 17 financial reporting and the culmination of tremendous efforts from the industry. Even though the U.S. has decided not to adopt IFRS 17, many insurers will still be impacted and an understanding of the Standard will be required. In this session, we will discuss the basic concepts of IFRS 17, compare IFRS 17 to US GAAP and discuss why you should care about IFRS 17.

Learning Objectives:

1. Identify basic concepts of IFRS 17.
2. Compare IFRS 17 to US GAAP.
3. Why U.S. insurers and actuaries may still need to understand IFRS 17 even if just applying U.S. GAAP.

Moderator: Ron T. Kozlowski

Speakers: Philippe Grégoire, Director, Insurance Consulting and Technology, Willis Towers Watson
Ralph Blanchard, recently retired, formerly worked for The Travelers Companies, Inc.

☐ ⚓ ⚓ CS-37: Rate Model - How to Improve Speed to Market Ⓢ

Room: Otis

This session will help insurers expedite the regulatory review process of state rate filings that contain advanced statistical techniques in rate models. Insurers are often unsure what to include in regulatory filings and how to describe the work performed to make sure it is understood by the regulator reviewing the work. The NAIC Model Review Team will provide some insights into common issues we encounter in reviewing regulatory rate filings that contain advanced statistical models to help insurers avoid multiple submissions that lengthen the time to get a product to market. The attendees will gain an understanding of good, bad and ugly approaches to designing regulatory filing submissions that contain advanced statistical models, with the goal of improving their filing submissions. This session will discuss professional documentation and applicable standards and should qualify for professionalism continuing education credits.

Learning Objectives:

1. Adequately describe model data and provide rationales for third party data and model variables.
2. Identify the essential components to include in a rate filing submission that contains advanced models based on actuarial standards of practice.
3. Understand the level of analytical detail expected in a regulatory filing submission.

Speakers: Kris DeFrain, Director of Research and Actuarial Services, NAIC
Roberto Perez, Actuary, NAIC

☐ ⚓ ⚓ CS-1: A Good Graph is Worth a Million Dollars Ⓢ

Room: Stone

While advanced techniques and automation are enabling actuaries to perform ever more complex analysis, often we do poorly in communicating even the basics of the work that we already do. At best, this can lead to “friction” in the communication of reserve estimates, and at worst it can result in a lack of transparency and miscommunication. This session will explore how graphs and diagnostics can be used to identify trends in our data; more clearly explain key assumptions; and help tell a narrative that lays out why our overall reserving position is what it is. We’ll discuss the challenges of working with traditional technical data; consider how new approaches will make this challenge of communication potentially even greater; and we’ll also touch upon new graphical toolkits that reserving actuaries might consider.

Learning Objectives:

1. Identify and prioritize the key metrics relevant to their stakeholders.
2. Leverage new visualizations to rationalize reserve selections.
3. Communicate key assumptions more confidently.

Speaker: Jamie Mackay, Consultant, WTW

☐ ⚓ CS-44: Vehicle Fleet Changes: Loss and Safety Impacts 🖋️

Room: Webster

The U.S. vehicle fleet has undergone radical transformations over the last 30 years. Vehicles are more crashworthy than ever and increasingly are equipped with technologies to prevent crashes. However, they are also more powerful, pricey and complex to repair. Additionally, as consumer tastes have changed, the size and types of vehicles in the vehicle fleet have evolved, and alternatives to naturally aspirated gasoline engines like electrics and hybrids are also increasing in popularity. All of these trends are associated with shifts in claim frequency, claim severity or both.

Learning Objectives:

1. Learn how the loss results for electric vehicles differ from vehicles with internal combustion engines.
2. Learn how the changing composition of the registered vehicle fleet impacts insurance.
3. Learn how many vehicles are predicted to be electric, hybrid, and have advanced driver assistance systems and partial automation in the next 5, 10 and 15 years.

Speaker: Kay Wakeman, Director of Insurance Outreach, IIHS-HLDI

General Session 5, Wednesday, May 10, 11:00 AM - 12:15 PM

☐ ⚓ GS-5: General Session: From Actuary to Founder ⚙️ 🎥

Room: Grand Ballroom A-B

In this closing general session, three entrepreneurs will share their experiences of pivoting from more traditional actuarial roles to founding their own companies. They will discuss the challenges and opportunities they encountered in their transition and provide insights into the unique skills and perspectives that actuaries bring to the startup world. Topics of discussion will include identifying opportunities for innovation in the industry, building and leading a team, and navigating the complex regulatory environment. This session is essential for actuaries looking to explore the possibilities of entrepreneurship and gain a better understanding of the process of starting a company.

Learning Objectives:

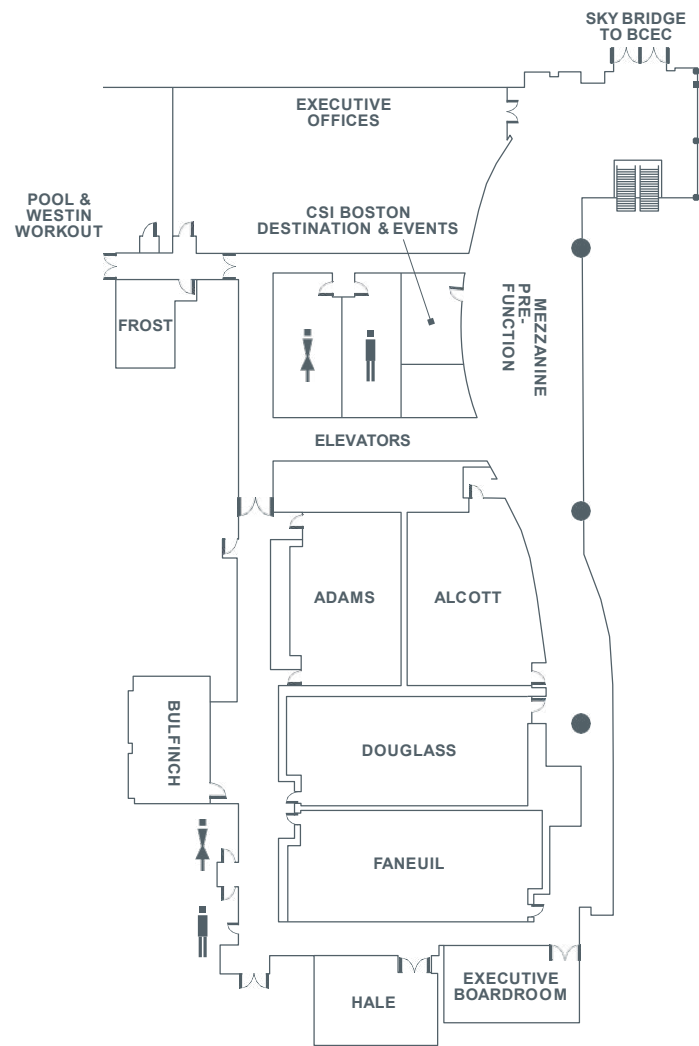
1. Examine the skills and experiences that actuaries bring to the startup world, and how they can be leveraged to create successful companies.
2. Understand the motivations and challenges faced by actuaries who decide to pivot to entrepreneurship.
3. Discuss the importance of building and leading a strong team in a startup environment.

Moderator: Isaac Espinoza

Speakers: Gage Caligaris, Founder & CEO, Ledgebrook
Matan Slagter, CEO & Co-Founder, Armadillo
Bill Hansen, Principal & Founder, Hansen Actuarial

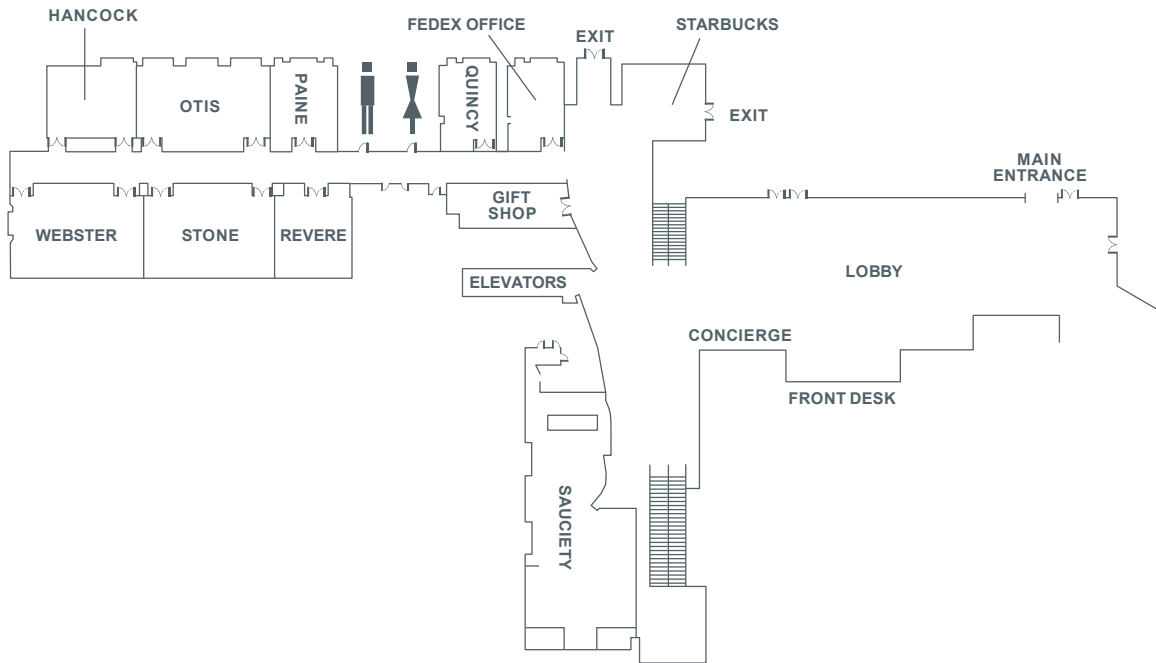
Mezzanine Level

MEETING SPACE



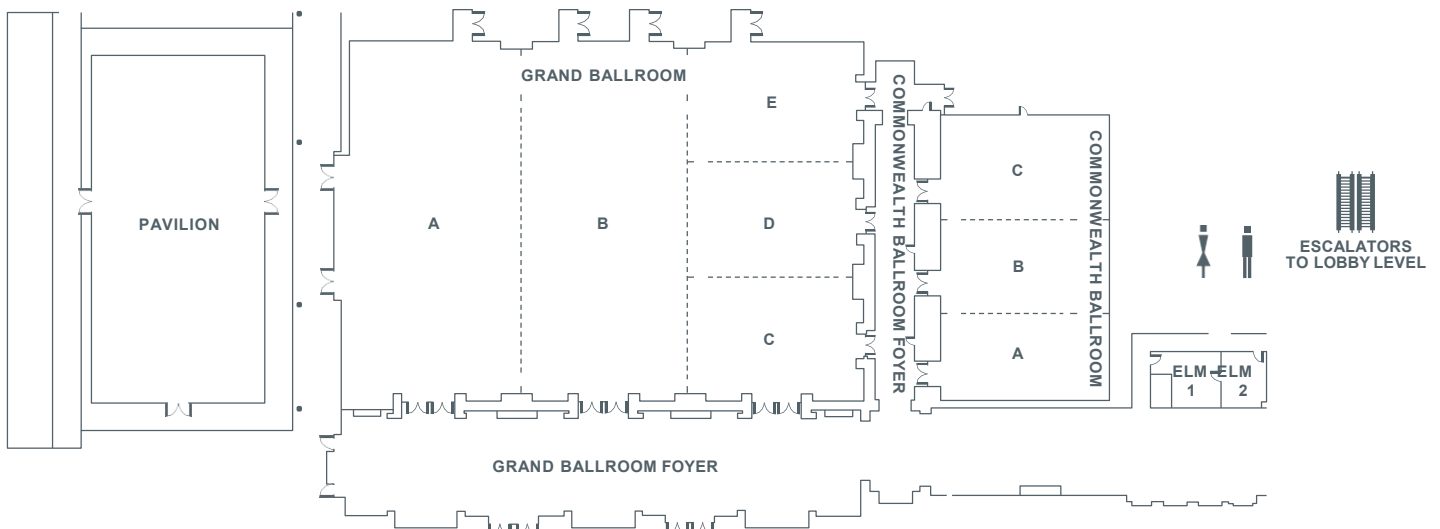
Lobby Level

MEETING SPACE



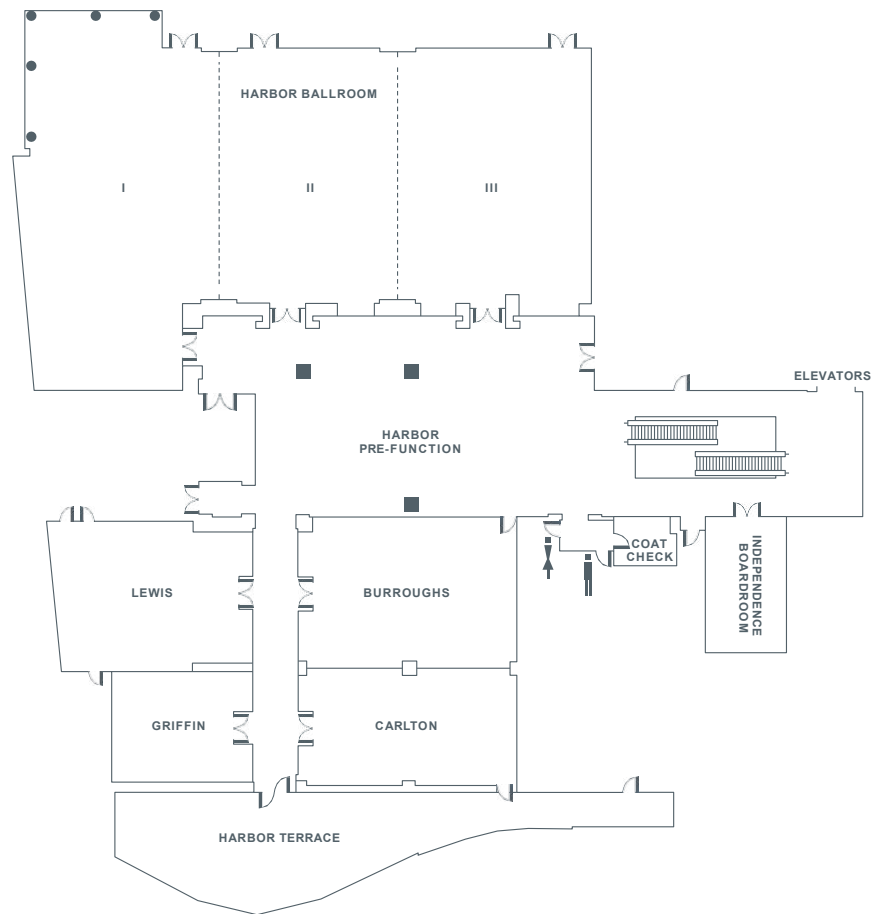
Concourse Level

MEETING SPACE



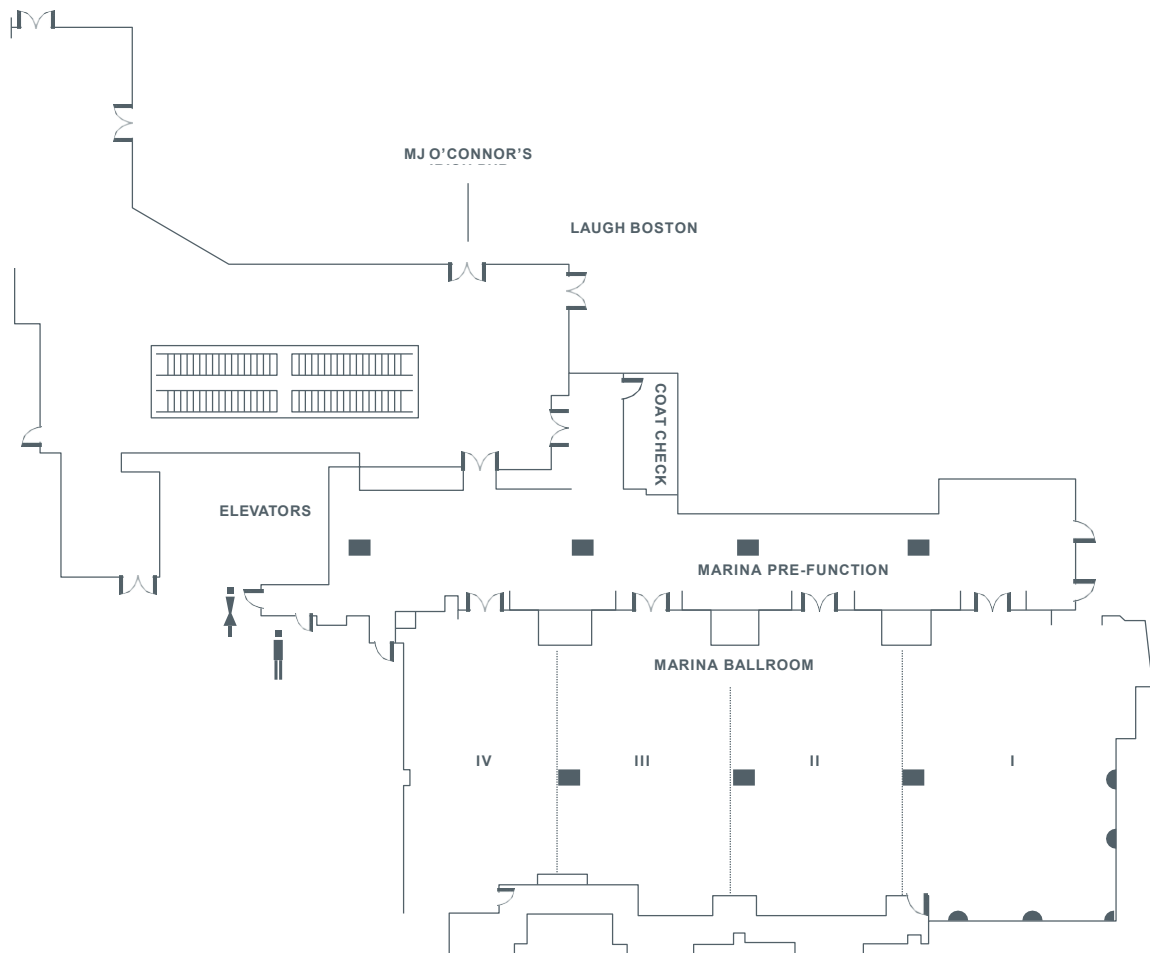
Harbor Wing, Mezzanine Level

MEETING SPACE



Harbor Wing, Lobby Level

MEETING SPACE



Harbor Wing, Concourse Level

MEETING SPACE

