



November 6-9, 2022

Hilton Minneapolis

Minneapolis, Minnesota

ANNUAL MEETING

**BUILDING
SKILLS FOR
THE FUTURE**

OVERVIEW

General Information

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

Consent to Use of Photographic Images

Participation at the Annual Meeting constitutes an agreement by the registrant for the CAS to use photographic images and other images. Please see the Annual Meeting website (casact.org/annual) for details.

Antitrust Notice

The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. The full CAS Antitrust Compliance Policy (<https://bit.ly/3T1D4jK>) clarifies prohibited activities and responsibility of all attendees.

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/attend#code-of-conduct-for-cas-events>) 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.

Annual Meeting Planning Working Group

Aaron Hillebrandt, *Chair*

David Core, *Staff Chair*

Kathleen Dean, *Staff Chair*

Carl Ashenbrenner

Ben Carrier

Feng Chen

Isaac Espinoza

Frank Gribbon

Guo Harrison

Kenneth Hsu

Ron Kozlowski

Lucas Li

Winnie Li

Josh Merck

Meagan Mirkovich

Dushyant Pattni

Nora Potter

Julie Stenberg

Wenwen Sun

Bob Wolf

The Board of Directors

Kathy Antonello.....President

Roosevelt Mosley.....President-Elect

Jessica Leong.....Immediate Past President

Elected Directors

Kuda Chibanda

Todd Lehmann

Mary Frances Miller

Kathy Odomirok

Kris DeFrain

Alejandra Nolibos

Erika Schurr

Geoff Werner

Justin Brenden

Kathy Olcese

Yvonne Palm

Jason Russ

Appointed Directors

Talithia Williams

Sean Kevelighan

Jodie Slaughter

Executive Council

Kathy Antonello..... President

Roosevelt Mosley..... President-Elect

Mary Hosford.....Vice President-Administration

William Wilder.....Vice President-Admissions

Kendra Felisky..... Vice President-International

Kimberly Guerriero.....Vice President-Marketing & Communications

Amy Juknelis..... Vice President-Professional Education

Jim Weiss..... Vice President-Research & Development


Victor Carter-Bey..... CAS Chief Executive Officer



The next generation insurance pricing solution

80% of Insurers who tested Akur8 for their insurance pricing have deployed the solution

 **SPEED**
10x faster

 **PERFORMANCE**
10% higher predictive power

 **TRANSPARENCY**
Built-in transparency, auditability and control

At Akur8, we empower actuaries to make better decisions, faster, by leveraging the power of Machine Learning and predictive analytics to inject game-changing speed and accuracy to an insurers' pricing process.

Adopt the next generation pricing platform and streamline your entire pricing cycle from modeling to filing.



Stop by our booth for a quick demo and the chance to win a \$150 Amazon Gift Card!

Over 50+ insurance companies worldwide trust Akur8



Interested in learning more?
Shoot us an email at contact@akur8.com

MEETING SCHEDULE

Sunday, November 6

| | | |
|-----------------------|--|----------------------|
| 1:00 p.m. – 5:00 p.m. | Student Ambassador Conference..... | Conrad BC |
| 4:30 p.m. – 7:30 p.m. | Registration..... | Red Wing Room |
| 4:30 p.m. – 7:30 p.m. | Exhibits..... | Grand Ballroom Foyer |
| 5:30 p.m. – 6:30 p.m. | Recognition Reception for New Associates and their Spouses/Guests..... | Symphony I-III |
| 5:30 p.m. – 6:30 p.m. | New ACAS Photo Session..... | Symphony IV |
| 6:30 p.m. – 7:30 p.m. | Welcome Reception | Grand Ballroom Foyer |

Monday, November 7

| | | |
|-------------------------|--|----------------------------|
| 7:00 a.m. – 5:00 p.m. | Registration..... | Red Wing Room |
| 7:00 a.m. – 8:30 a.m. | Continental Breakfast & Exhibits..... | Grand Ballroom Foyer |
| 8:00 a.m. – 9:00 a.m. | Welcome, Celebration of New Members..... | Minneapolis Grand Ballroom |
| 8:15 a.m. – 5:00 p.m. | Student Ambassador Conference..... | The Gallery |
| 9:00 a.m. – 9:30 a.m. | Refreshment Break & Exhibits..... | Grand Ballroom Foyer |
| 9:00 a.m. – 9:30 a.m. | New Member Group Photo Session | Conrad (or TBD) |
| 9:30 a.m. – 10:30 a.m. | Featured Speaker | Minneapolis Grand Ballroom |
| 10:30 a.m. – 11:30 a.m. | Business Session/Town Hall | Minneapolis Grand Ballroom |
| 11:30 a.m. – 1:00 p.m. | Plated Luncheon – Roundtables – Awards Presentation | Marquette Ballroom |
| 1:00 p.m. – 2:30 p.m. | GS-1: Chief Actuary Roundtable: A Discussion on Diversifying the Pipeline and Ensuring All Our Members Thrive | Minneapolis Grand Ballroom |
| 2:30 p.m. – 3:00 p.m. | Refreshment Break & Exhibits..... | Grand Ballroom Foyer |
| 3:00 p.m. – 4:15 p.m. | Concurrent Sessions 1 | |
| 4:30 p.m. – 5:20 p.m. | Roundtables | |
| 6:00 p.m. – 7:00 p.m. | Officers’ Reception for New Fellows and their Spouses/Guests..... | Conrad |

Tuesday, November 8

| | | |
|-------------------------|--|----------------------------|
| 7:00 a.m. – 1:00 p.m. | Registration..... | Red Wing Room |
| 7:00 a.m. – 8:30 a.m. | Continental Breakfast, CAS Board Member Meet & Greet, and Exhibits..... | Grand Ballroom Foyer |
| 7:00 a.m. – 7:50 a.m. | Roundtables | |
| 8:00 a.m. – 9:30 a.m. | GS-2: Key Risks and Opportunities: Today and Tomorrow | Minneapolis Grand Ballroom |
| 8:00 a.m. – 9:30 a.m. | GS-3: Embedded Insurance and How It Could Change the Industry Landscape | Marquette Ballroom |
| 9:30 a.m. – 10:00 a.m. | Transition & Exhibits..... | Grand Ballroom Foyer |
| 10:00 a.m. – 11:15 a.m. | Concurrent Sessions 2 | |
| 11:15 a.m. – 11:45 a.m. | Refreshment Break & Exhibits..... | Grand Ballroom Foyer |
| 11:45 a.m. – 1:00 p.m. | Concurrent Sessions 3 | |
| 1:00 p.m. – 2:30 p.m. | Lunch on Your Own | |
| 2:30 p.m. – 3:20 p.m. | Roundtables/Vendor Demo | |
| 6:30 p.m. – 9:30 p.m. | Tuesday Night Dinner at Nickelodeon Universe | |

Wednesday, November 9

| | | |
|------------------------|--|----------------------------|
| 7:00 a.m. – 1:00 p.m. | Registration..... | Red Wing Room |
| 7:00 a.m. – 8:30 a.m. | Continental Breakfast & Exhibits..... | Grand Ballroom Foyer |
| 7:00 a.m. – 7:50 a.m. | Roundtable | |
| 8:00 a.m. – 9:15 a.m. | Concurrent Sessions 4 | |
| 9:15 a.m. – 9:45 a.m. | Refreshment Break & Exhibits..... | Grand Ballroom Foyer |
| 9:45 a.m. – 11:00 a.m. | Concurrent Sessions 5 | |
| 11:30 a.m. – 1:00 p.m. | GS-4: The Future of Work Post-COVID-19: Re-imagining Our Work in the “New Normal” | Minneapolis Grand Ballroom |
| 1:00 p.m. – 1:15 p.m. | Adjournment | Minneapolis Grand Ballroom |



Ezra Penland

ACTUARIAL RECRUITMENT

actuaries@EzraPenland.com • (800) 580-3972

EzraPenland.com

Ezra Penland Actuarial Recruitment is led by Sally Ezra, who has decades of direct industry experience and knowledge. We are leaders within the specialized field of actuarial recruitment, serving the long-term needs of our clients and candidates.



Our educated, knowledgeable, and highly trained staff will always exhibit business ethics, integrity, empathy, and strong listening skills to help you reach your goals.







MEET THE SPONSORS

Thank you to the 2022 Annual Meeting sponsors.

Platinum Partners









| | |
|---|--|
|  | <p>Akur8 Akur8 is revolutionizing insurance pricing with Transparent Machine Learning, boosting insurers' pricing capabilities with unprecedented speed and accuracy across the pricing process without compromising on auditability or control. Akur8 serves 50+ customers across 20+ countries. Over 700 actuaries use Akur8 to build their pricing models across all lines of business. Learn more at akur8.com.</p> |
|  | <p>Ezra Penland Ezra Penland Actuarial Recruitment is a leader within the specialized field of actuarial recruitment, serving both clients and actuaries in various industries across the nation. Our educated, knowledgeable, and highly trained staff will always exhibit business ethics, integrity, empathy, and strong listening skills to help you reach your goals. Learn more at www.ezrapenland.com.</p> |

Gold Partners

| | |
|---|--|
|  | <p>Actuarial Careers Actuarial Careers, Inc.® specializes solely in the placement of actuaries on a worldwide basis and provides the most responsive and professional service in the industry. We provide every actuarial candidate we represent with the opportunity to broaden and enhance their personal career, and every client, the best candidate for each position. Our in-depth knowledge of the industry allows us to be in the forefront of actuarial opportunities and trends. Learn more at actuarialcareers.com.</p> |
|  | <p>Milliman Milliman is a global consulting firm with extensive expertise in all lines of insurance. We provide clients industry leading reserving, pricing, underwriting, claims, and market analysis using advanced machine learning and predictive modeling methods. Our Arius reserving software provides some of the industry's most advanced reserving capabilities to help manage your entire end-to-end reserving process, significantly improving efficiency and reliability. For more information visit milliman.com.</p> |
|  | <p>Pryor Associates Named top recruiting firm by Dun & Bradstreet, Pryor has 5 decades of insurance placement experience. Pauline Reimer directs the Actuarial, Modeling & Risk Division since 1986, after working as an actuary herself. An ASA, MAAA, affiliate member of CAS and IFoA, she serves on SoA E&I Section Council and ASNY's Executive Board. Handling each assignment personally, her placement records of 99% retention rate & retained search success ratio confirm her status as a preeminent actuarial recruiter worldwide. Her motto is "It Takes One To Know One...An Actuary Placing Actuaries (and Related Professionals)". Learn more at ppryor.com.</p> |
|  | <p>Red Mountain Top auto insurance companies use Red Mountain Technologies for rating, underwriting, and claims. Our Risk Predictor Score Models provide insurance customers with vital, accurate, and up-to-date vehicle history data they need to make informed decisions – for accurate pricing within the auto insurance market. Learn more at redmountaintech.com.</p> |




MEET THE SPONSORS

Silver Partner

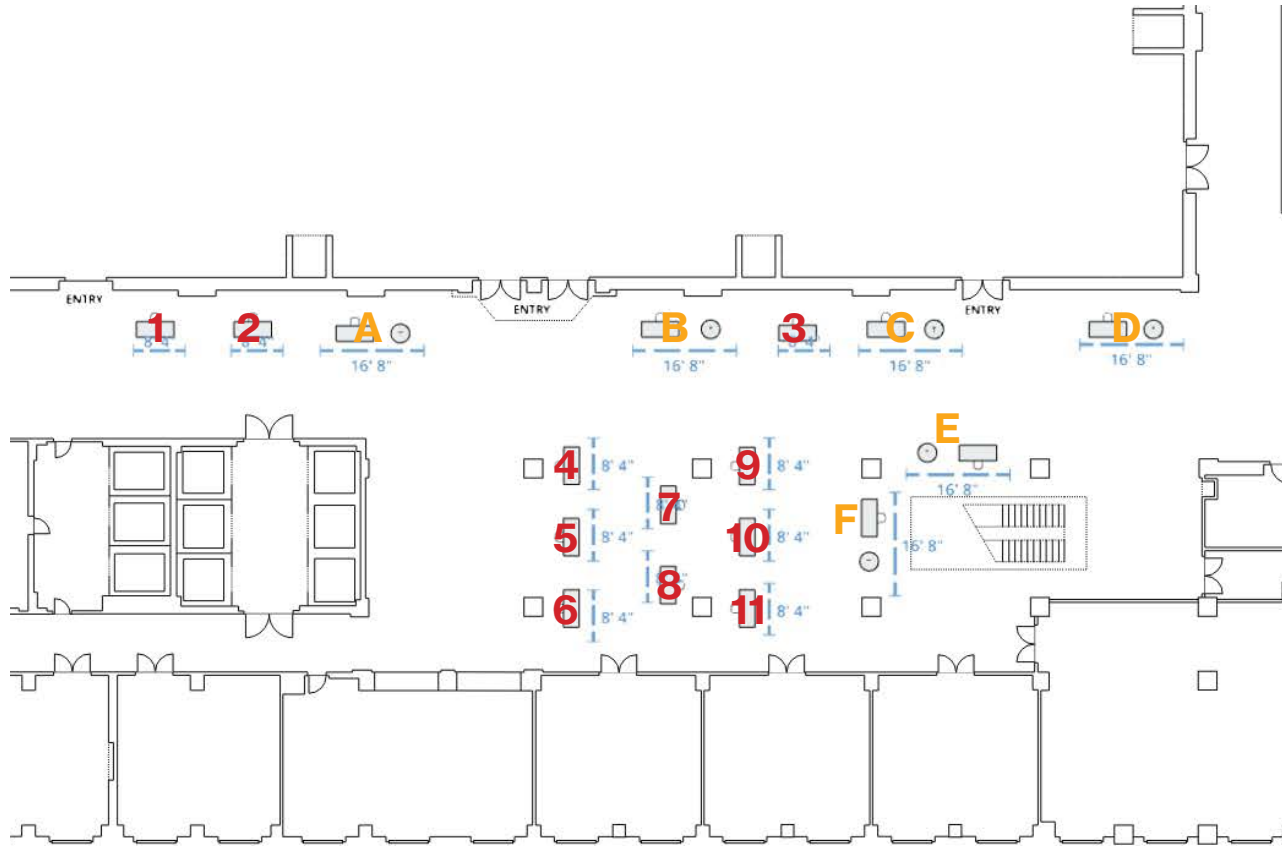
| | |
|---|---|
|  | <p>CARFAX</p> <p>More information yields better decisions. That is why 80 percent of the combined personal and commercial insurance market choose CARFAX vehicle history data to help mitigate future risk and improve the bottom line. Our predictive information helps auto insurers attract and retain the best customers while avoiding losses. Learn more at carfaxforinsurers.com.</p> |
|  | <p>DW Simpson</p> <p>DW Simpson is an actuarial and analytics recruiting firm. Our recruiters work with actuaries from entry level through fellowship in all disciplines including property & casualty, life, health, pension, and non-traditional actuarial jobs. In addition, if you need to add to your team, our recruiters can help facilitate your search. Learn more at dwsimpson.com.</p> |
|  | <p>GuideWire</p> <p>Guidewire is the platform P&C insurers trust to engage, innovate, and grow efficiently. We combine digital, core, analytics, and AI to deliver our platform as a cloud service. More than 500 insurers, from new ventures to the largest and most complex in the world, run on Guidewire. For more information, contact us at info@guidewire.com.</p> |
|  | <p>Jacobson</p> <p>The Jacobson Group is the leading provider of talent to the insurance industry. For more than 50 years, Jacobson has been connecting organizations with insurance professionals at all levels across all industry verticals. Regardless of the need or situation, Jacobson is the insurance talent solution. Learn more at Jacobsononline.com.</p> |
|  | <p>Pinnacle</p> <p>Pinnacle Actuarial Resources, Inc., is a full-service consulting firm that ranks among the largest independent property/casualty actuarial firms in the United States. Pinnacle's areas of expertise include predictive analytics, pricing and product management, loss reserving, reinsurance, litigation support and legislative costing. Discover more about Pinnacle's Commitment Beyond Numbers at www.pinnacleactuaries.com.</p> |
|  | <p>Planck</p> <p>Planck's AI data platform solves the insurance industry's need for real-time accuracy. With just a business name and address, Planck extracts an organization's digital presence and refines them into actionable insights. The result is a clearer picture of risk assessment provided in real-time and coverage for more informed underwriting decisions. Learn more at planckdata.com.</p> |
|  | <p>Selby Jennings</p> <p>Selby Jennings is a leading specialist recruiter for banking and financial services. For more than 15 years, we have given clients and candidates peace of mind that the recruitment process is in expert hands. Today, we provide permanent, contract, multi-hire recruitment from our offices all over the world. Learn more at selbyjennings.com.</p> |
|  | <p>WTW</p> <p>At WTW, we provide data-driven, insight-led solutions in the areas of people, risk and capital. Our Insurance Consulting and Technology experts offer a powerful combination of advisory services for insurance companies, integrated with technology solutions and market-leading software that is underpinned by unparalleled analytical capabilities. Learn more at wtwco.com/ICT.</p> |

MEET THE SPONSORS

Bronze Partner

| | |
|---|---|
|  | <p>Insureware</p> <p>Insureware Pty. Ltd. is the world's leading authority on long-tail liability risks. Its flagship software solution ICRFS™, and associated consulting services, are based on decades of research and development. Insureware creates a unique collaborative partnership with each client. The partnership facilitates the growth of company specific knowledge, benefits, and applications. For more information, please visit www.insureware.com.</p> |
|  | <p>Travelers</p> <p>The Travelers Companies, Inc. (NYSE: TRV) is a leading provider of property casualty insurance for auto, home and business. A component of the Dow Jones Industrial Average, Travelers has approximately 30,000 employees and generated revenues of approximately \$35 billion in 2021. For more information, visit travelers.com.</p> |
|  | <p>Verisk</p> <p>Verisk provides data-driven analytic insights and solutions for the insurance industry. Our flagship product, Verisk's Core Line Services, consists of policy forms, rating rules, loss costs, emerging issues, actuarial and data insights. Through advanced data analytics, software, scientific research and deep industry knowledge, Verisk empowers customers to strengthen operating efficiency, improve underwriting and claims outcomes, combat fraud, and make informed decisions. Learn more at verisk.com.</p> |

MEET THE SPONSORS



Booth Assignments

| | | | |
|----------|-------------------|-----------|----------------------|
| A | Ezra Penland | 1 | Guidewire |
| B | Akur 8 | 2 | WTW |
| C | Pryor | 3 | CAS/ICAS Booth |
| D | Milliman | 4 | Selby Jennings |
| E | Red Mountain | 5 | CarFax |
| F | Actuarial Careers | 6 | Jacobson |
| | | 7 | DW Simpson |
| | | 8 | AAA |
| | | 9 | Pinnacle |
| | | 10 | Actuarial Foundation |
| | | 11 | Jacobson |

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



Recorded Session



Livestreamed Session

Sessions by Theme

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

| |
|------------------------------------|
| Autonomous Vehicles |
| Bias |
| Business Analytics/Problem Solving |
| Business Skills |
| CAS |
| Catastrophe/Reinsurance |
| Climate Change |
| Emerging Issues |
| Enterprise Risk Management |
| Inflation |
| International |
| Leadership |
| Personal Lines |
| Predictive Modeling/Analytics |
| Professionalism |
| Ratemaking |
| Research |
| Reserving |
| Special Topics |
| Talent |

Featured Speaker

Monday, November 7, 9:30 - 10:30 a.m.

  **FS-I: Featured Speaker Address: Cathy O'Neil** 

Minneapolis Grand Ballroom



CAS' Annual Meeting Featured speaker, Cathy O'Neil, Ph.D., will share her thoughts, analyses and concerns over the uses of data and algorithms to draw incomplete or inaccurate conclusions and what we as a profession can do to level the field. She will address algorithmic auditing in general, and about her framework called explainable fairness in particular.

Speaker: Cathy O'Neil, Ph.D., CEO, ORCAA

GENERAL AND CONCURRENT SESSIONS

JOIN THE CONVERSATION ON TWITTER #CASANNUAL

Roundtables

Luncheon with Roundtables

Monday, November 7, 11:30 a.m. - 1:00 p.m.

☐ L-RT: Learn about Us – Abacus Actuaries

Marquette Ballroom

Come join us at a lunch and learn about Abacus Actuaries! A network of aspiring, practicing, and former actuaries, working together through mentorship programs, networking and other professional development opportunities to break the bamboo ceiling, so Asians can achieve equal representation in the highest ranks of the actuarial profession.

Facilitator: Jessica Leong, CEO, Octagram

☐ L-RT: Learn about Us – Network of Actuarial Women and Allies (NAWA)

Marquette Ballroom

Come join us at lunch to learn about NAWA! From the 1980s to the 2010s, our profession saw steady growth in the percentage of female actuaries — rising from around 20% up to 31%. But for the past decade, things have stayed stagnant and female representation at senior leadership levels look even worse. It's time for change. And because the support of allies are key to meaningful change, it is just as important to include allies in our community as the women we are seeking to empower.

Facilitator: Yuliya Semibratova, Associate Actuary, Allstate

Roundtable

Monday, November 7, 4:30 - 5:20 p.m.

☐ RT-3: CAS Research: Approaches to Address Racial Bias ■

Orchestra Ballroom A

Join us for a discussion of the Casualty Actuarial Society's Research Paper Series on Race and Insurance Pricing and the role of the actuary in addressing issues related to the topic. While material from each of the four papers may be referenced, this discussion will focus on Approaches to Address Racial Bias in Financial Services: Lessons for the Insurance Industry (https://www.casact.org/sites/default/files/2022-03/Research-Paper_Approaches-to-Address-Racial-Bias_0.pdf). What examples from other financial services are helpful to consider? Is the insurance industry destined to be reactive to regulatory framework? What role should the actuary take moving forward? Participants are encouraged, but not required, to review the paper in advance of the roundtable session.

Facilitators: Elizabeth Demmon Storm, Senior Director, Actuarial & Analytics, Travelers
Allan Ouyang, Senior Consultant, ALDP, Travelers

□ RT-8: Sustainability and Insurance: Should It Matter to Your Organization? ■

Orchestra Ballroom B

Facilitated discussion on Sustainability in Insurance and what it means for your company from opportunity and risks. Sustainability and ESG will bring along liability and transition risks along with new accounting paradigms (e.g. SASB, TCFD, TNFC) and disclosures. This session is meant to provoke thought and hopefully lead you to think holistically how to approach this emerging topic at your own organization.

Facilitator: Jonathan Charak, VP - Emerging Solutions Director, Zurich North America

Roundtables

Tuesday, November 8, 7:00 – 7:50 a.m.

□ RT-4: DEI in the Actuarial Profession ■

Orchestra Ballroom B

4% of actuaries are Black or Latino, compared to 15% of PhD recipients and 17% of STEM jobs.

CAS research shows key challenges in the pipeline, in hiring, and in including people in the profession.

Many organizations are announcing DEI initiatives, but what can individuals do? Come share best practices and advice for individuals who want to personally make a difference in improving diversity, equity and inclusion in the actuarial profession. For further reading, see:

- CAS infographic: Keys to Unlocking Diversity in the Actuarial Profession (<https://www.casact.org/sites/default/files/2022-02/Unlocking%20Diversity%20InfoGraphic.pdf>)
- Article: New Report Holds Keys to Diversity and Inclusion: Five Barriers Revealed (<https://ar.casact.org/new-report-holds-keys-to-diversity-and-inclusion-five-barriers-revealed/>)

Facilitator: Samuel Nolley, SVP, Chief Pricing Actuary, Arch Insurance Group

□ RT-5: How Work has Changed as a Result of COVID ■

Orchestra Ballroom C

Please join us for a discussion on successes / challenges or just the status quo for the working environment post-covid. Are teams consistently back in the office? How has this impacted training, development, productivity, retention? Looking to discuss industry and consulting perspectives to learn what seems to work best as we navigate the working style of the profession going forward.

Facilitator: Joshua Merck, Senior Manager, Deloitte Consulting, LLP

Roundtables

Tuesday, November 8, 2:30 - 3:20 p.m.

RT-1: Current Industry Trends Impacting Hiring

Rochester Room

Please join Pauline Reimer of Pryor Associates for a discussion of the most salient issues currently impacting recruitment, including Salary History Bans, DE&I, Remote Work, Virtual Interviewing, and lastly -- The Great Resignation.

Facilitator: Pauline Reimer, Managing Director, Pryor Associates Executive Search

RT-6: New ACAS Roundtable: The Associate's Perspective

Orchestra Ballroom B

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.

Facilitators: Sarah Manuel, Actuarial Director, Ryan Specialty Group
Ben Markowski, AVP – Actuarial, Palomar
Neb Bojer, Senior Vice President, Guy Carpenter

RT-2: CAS Admissions Update - Roundtable

Orchestra Ballroom C

CAS launched the Admissions Transformation Plan (ATP) in 2021 as a high-level blueprint of key milestones to evolve and enhance the CAS credentialing program for the future, building on our long tradition of providing the premier designation for property-casualty actuaries. CAS Admissions Staff is looking to engage with members on some of the topics covered during the earlier session with discussions on new exam design and development, new exam features, and newly developed study materials.

Facilitators: Margaret Lyons, Director of Certification Development, Casualty Actuarial Society
Ashley Zamperini, Director of Certification Products, Casualty Actuarial Society

RT-7: Open Source Actuarial Science Chainladder-Python Working Session

Orchestra Ballroom D

This is the supplemental round table session to “Open-Source Actuarial Science with Examples” presented by John Bogaardt and Kenneth Hsu. Join us as we form small groups and work on the starter tutorial together and explore the most popular open-source package on the CAS repository: chainladder-python. Please bring a laptop, all you need is an internet browser, no prior installation or set up is necessary.

Facilitators: John Bogaardt, Chief Actuary, WCF Insurance
Kenneth Hsu, Lead Actuary, Breach Insurance

Roundtable

Wednesday, November 9, 7:00 – 7:50 a.m.

RT-9: Construction Defects

Orchestra Ballroom 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.

Facilitator: Ronald Kozłowski, Lead Consultant, RTK Actuarial & Professional Services

Vendor Demonstration

Tuesday, November 8, 2:30 - 3:20 p.m.

VD-1: Using Insurance Data to Improve Risk Scoring

Orchestra Ballroom A

Existing commercial insurance loss propensity scores have leveraged traditional, generic business data - not specific to insurance - to predict future losses. There is an opportunity to create new risk scores that create unprecedented loss propensity score performance by tapping into specific line of business (e.g., Workers Comp, General Liability, etc.) and business segment specific (e.g., Construction, Manufacturing, Retail, etc.) insurance data assets. Insurance specific data assets create unprecedented lift to the efficacy and performance of commercial loss propensity models. In this session you will be able to apply risk scoring to improve underwriting, preventing premium leakage and improve the renewal process.

Speaker: Leandro DalleMule, General Manager, Planck

Town Hall

Monday, November 7, 10:50 – 11:30 a.m.

CAS Town Hall on Actuaries and Technology

Join us for an interactive Town Hall focused on the topic of actuaries and technology. One of the primary goals of the CAS is to equip actuaries with the skills needed to tackle the analytical challenges in our data-rich world. CAS leaders will reveal for the first time, results of our second annual actuarial technology survey, providing insights into the technological tools actuaries are adopting to solve risk management problems, complimenting the theme of the CAS Annual Meeting, Building Skills for the Future.

Come prepared to share your reactions to the survey results – do they reflect your current experience? What are the technology challenges you face in your work and how you have overcome them? Based on the survey results, what should the CAS do to help actuaries and their employers take advantage of opportunities for utilization of technology advances that will showcase the actuary of the future? Where should the CAS focus future research, and incorporate technological skills into basic and continuing education?

Speakers: Kathy Antonello, President/CEO, Employer Holdings
Frank Chang, Vice President, Applied Sciences, Uber
Jessica Leong, CEO, Octagram
Roosevelt Mosley, Principal and Consulting Actuary, Pinnacle Actuarial Resources

General Sessions

Monday, November 7, 1:00 – 2:30 p.m.

🗨️ 🍷 GS-1: Chief Actuary Roundtable: A Discussion on Diversifying the Pipeline and Ensuring All Our Members Thrive

Minneapolis Grand Ballroom

“Diversifying the Pipeline” is one of the three Pillars of the CAS Strategic Plan. How are large employers of CAS members thinking about widening the variety of people entering the actuarial profession, and what actions are they taking? How are they nurturing the membership that we have today, so that all of our members thrive?

What are some ideas that you might try as an actuary in your organization?

Join CAS President Kathy Antonello and three chief actuaries for a discussion of what “diversifying the pipeline” means to them, as they share some examples of what they are encouraging in their organizations.

- Facilitator: Kathy Antonello, President, Casualty Actuarial Society
- Speakers: Bruce Gifford, SVP & Chief Actuary, Business Insurance, Travelers
Donna Glenn, Chief Actuary, NCCI
David Cummings, Chief Actuary, USAA

Tuesday, November 8, 8:00 – 9:30 a.m.

🗨️ 🍷 GS-2: Key Risks and Opportunities: Today and Tomorrow

Minneapolis Grand Ballroom

With both climate-related risks and social inflation driving increasing losses and generating headlines, it’s important to understand both the drivers and outlook for these impacts on the insurance industry. First, climate related perils have caused significant events in recent years such as wildfires, hurricanes, derechos, and flooding. The session will explore the climate risk landscape and discuss how insurers, communities, and regulators are responding.

Second, the session will turn to social inflation and the rising impact of litigation costs and claim payouts. The presentation will discuss the proliferation of class-action lawsuits, outsized verdicts, and litigation funding, while exploring the close connection between social and economic inflation.

This session will conclude with a discussion of these topics with a forward-looking approach about what the industry and actuarial profession can do in response to these growing risks, as well as questions from the audience.

- Moderator: Katey Walker, Willis Towers Watson
- Speakers: Sean Kevelighan, CEO, Insurance Information Institute,
Dale Porfilio, Chief Insurance Officer, Insurance Information Institute

📍 🍷 GS-3: Embedded Insurance and How It Could Change the Industry Landscape

Marquette Ballroom

As technology has evolved so have economies and market dynamics. Embedded insurance has entered the scene as an area with rapid growth potential in a shifting insurance distribution paradigm. This session will bring in thought leaders in the space to not only define embedded insurance but also explore the opportunities and challenges it could present for the industry.

Moderator: Adrian Jones, Partner, HSCM Ventures

Speakers: Cole Platt, Principal Product Manager, Root Inc.
Joshua Snead, CEO, Rainwalk
Michael Meeks, COO, battleface

Wednesday, November 9, 11:30 a.m. – 1:00 p.m.

📍 🍷 GS-4: The Future of Work Post-COVID-19: Re-imagining Our Work in the “New Normal”

Minneapolis Grand Ballroom

The results of the pandemic have accelerated on-going macro trends. The benefits of which has realized in things we can do that were not imaginable pre-post-pandemic. In this session, we discuss opportunities to put these trends to work in our work styles today and tomorrow. In this session we will discuss the “great resignation” and its potential effects on the P&C Industry, and the opportunities that can be deployed given this trend. Discussion will include whether this trend will be sustainable in the foreseeable future.

Moderator: Steve Belden, Chief Actuary, North Star Mutual Insurance Company

Speakers: Bonnie Dowling, Expert Associate Partner, McKinsey and Company
Deniz Cultu, Partner, McKinsey and Company

Concurrent Sessions

Monday, November 7, 3:00 - 4:15 p.m.

CS-2: The Actuarial Meaning of Insurance

Orchestra Ballroom A

The actuarial profession is grounded in the concepts of insurance. Many academic and other authors have written about the concepts and definitions of insurance. Actuaries have developed actuarial standards of practice, practice notes, principles, etc. However, the actuarial profession seldom explains the actuarial meaning of insurance.

Insurance laws and regulations define insurance to protect the policyholders and the public. Accounting standards define insurance to fairly represent financial statements. But actuaries tend to rely on other professions to define insurance. Nonetheless, the actuarial profession has excellent insights about the wide scope of insurance applications since actuaries provide the quantifications necessary for insurance to survive despite many unknowns and uncertainties which resist measurement.

Insurance pricing disputes arise around the definition of insurance, insurability, insurance accounting, insurer regulation, insurance taxation, arm's length pricing of insurance transactions, actuarial pricing judgments, and actuarial risk assessment of insurer solvency. The law of large numbers is oft quoted as the foundation of actuarial science for insurance. However, this statistical law does not define insurance nor the actuarial profession.

The presenters will discuss the actuarial meaning of insurance and highlight the major debates about the actuarial perspectives about the actuarial estimates necessary for insurance transactions to occur. The presenters will present examples to illustrate the potential for conflicting views and confusion when the definition and meaning of insurance is being questioned.

Moderator: Jonathan Charak, VP Emerging Solutions Director, Zurich

Speakers: Bob Miccolis, Managing Principal, Miccolis Consulting LLC,
Robert Walling, Principal & Consulting Actuary, Pinnacle Actuarial Resources, Inc.
Michael Angelina, Executive Director, Saint Joseph's University

CS-27: Take the Pledge--Be an Actuary of the Future!

Orchestra Ballroom B

In her address to new members at the 2021 CAS Annual Meeting, Jessica Leong challenged members to be Actuaries of the Future--to apply our analytical skills to solve business problems with a tangible result. What are some examples of this in practice? How can you meet this challenge? In this session, a panel of Actuarial leaders responsible for hiring and developing actuaries will share tangible examples, ways to start putting this into practice, and answer questions. Please join us, and take the pledge to be an Actuary of the Future!

Moderator/Speaker: Wesley Griffiths, AVP & Actuary, Corporate Actuarial, Travelers Insurance,

Speakers: Julia Stenberg, VP & Actuary, CNA Insurance Companies
Alejandra Nolibos, Senior Director, Willis Towers Watson
Eric Kendig, AVP, Actuarial & Analytics, Bond & Specialty Insurance, Travelers
Jessica Leong, CEO, Octagram

📍 🍷 CS-6: Are MGAs the Future of Underwriting? 🟩

Symphony Ballroom

This session will provide two actuarial perspectives on what MGAs are, how they work, and what the MGA space looks like in the United States. It will explore some situations where a carrier may consider delegating authority and the types of risk typically involved. Case studies of product innovation in alternative markets, oriented towards addressing the needs of the underserved, will be covered. Operational considerations related to MGAs, including compliance and technology, will also be discussed. The session will be useful to anyone interested in tapping into alternative markets, or simply learning how approaches used in alternative markets can apply in traditional ones.

Moderator: Jim Weiss, Vice President, Crum & Forster

Speakers: Denise Olson, Senior Vice President, Head of Programs, US Middle Markets, Zurich North America,
Anju Arora, Senior Vice President, Portfolio Performance & Program Actuary, Ethos Specialty Insurance

📍 🍷 CS-13: Deep Dive on the Code of Conduct 2.0 🟩

Orchestra Ballroom D

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 brand new scenarios. Behaving “professionally” is not always a black-and-white exercise – we operate in many grey areas, so its good to discuss in a group how these precepts apply in realistic situations. Our new scenarios will include many scenarios that may occur in our day-to-day work activities.

Moderator: Kendall Williams, Staff Actuary, Casualty Actuarial Society

Speakers: Patricia Teufel, Retired
Ronald Kozlowski, Lead Consultant, RTK Actuarial & Professional Services
Kenneth Hsu, Lead Actuary, Breach Insurance

📍 🍷🍷 CS-18: The Future of Enterprise Risk Management : Six Future Scenarios 🟩

Orchestra Ballroom C

Enterprise Risk Management has evolved over the years and continues to evolve. Scenario based planning is good tool for forming company strategy and planning risk management. Scenarios considered could include current real life scenario (e.g. combining a pandemic, weather events, supply chain issues, inflation and a regional war all at the same time). Multi risk scenarios can provide major insights about a company’s resilience that do not necessarily happen when considering single risk scenarios or even with incorporating stochastic models. This session will describe several ways that the future might play out for enterprise risk management. The discussion will include thoughts on the likelihood of six possibilities of how ERM could realize and how the likelihood of those possibilities could be altered by our experiences over the past” two plus” years. Join us for a thought provoking discussion. We will also discuss the dilemma of the three little pigs in consideration of the above.

Moderator: Raj Bohra, EVP, Gallagher Re

Speakers: David Ingram, Retired
Robert Wolf, Vice President and Chief Actuary, StoneTrust Commercial Insurance Company

📦 🍒 CS-2I: Inflation - An Update

Minneapolis Grand Ballroom

Economic and social inflation continue to be top of mind topics for (re)insurers:

CPI inflation is the highest it has been since the 1980s. Supply shortages are adding to other economic factors to continue to fuel price increases. In addition, social inflation is causing a spike in claim costs. One factor unrelated to CPI increases that is fueling claim costs is third party litigation funding and the likelihood of juries to award large verdicts.

This session will delve into the underlying drivers of economic and social inflation, their impacts on (re)insurer books of business. The speakers will suggest techniques for dealing with these highest levels of inflation we've seen in 40+ years, including ideas on how actuaries can select trend rates.

Moderator: Ben Carrier, Managing Director, Aon
Speakers: John Jacobi, Managing Director, Aon
Brian Brown, Consulting Actuary, Milliman

Tuesday, November 8, 10:00 - 11:15 a.m.

📦 🍒 CS-II: Challenges and Tips for Researching DEI Topics

Orchestra Ballroom B

The Casualty Actuarial Society, the Society of Actuaries and the Society of Insurance Research have started developing research addressing DEI topics. The panelists will briefly present overview of their research and will share their perspectives on common challenges faced across the stages of research:

- Planning relevant and timely research with a long timeline
- Getting appropriate data and resources to support your research
- Communicating research on topics that may be controversial

Moderator/Speaker: Jean-Marc Fix, VP, Research & Development, Optimum Re Insurance Company
Speakers: Mallika Bender, DE & I Staff Actuary, Casualty Actuarial Society
Lisa Schilling, Senior Research Actuary, Society of Actuaries
Sharla Floyd, Enterprise Strategy Research Senior Analyst, American Family Insurance

📄 🍒 CS-25: Penalized Regression - Between Credibility and GBM

Orchestra Ballroom A

Penalized regression is steadily becoming a mainstream application in ratemaking. There is a momentum in the insurance space with innovation in research, software and production on penalized techniques that build and innovate the standard GLM models.

Historically, this technique was popularized by the machine learning literature, and how it is taught is not synchronized with how actuaries approach modeling to solve insurance problems. This should not be the case: the penalized framework is versatile and allows to effectively solve many insurance use cases that are currently tackled via established techniques.

First, we will see how, practically and theoretically, Penalized Regressions are effectively Credibility procedures and allow to blend GLM with credibility to reduce overfitting and improve a model's ability to generalize.

Then on the other hand, we will display how Penalized regression can be thought of as GBMs, a powerful but yet completely black box modeling technique.

Since Penalized regressions can effectively tie standard Credibility practices and incorporate some of the benefits of GBMs, this presentation aims to contribute the diffusion of these techniques as solid alternatives to standard GLMs for ratemaking.

Moderator: Jonathan Charak, VP Emerging Solutions Director, Zurich

Speakers: Guillaume Beraud-Sudreau, Chief Actuary & Co-founder, Akur8
Mattia Casotto, Head of US Product, Akur8

📄 🍒 CS-9: Building the Actuary of the Future

Orchestra Ballroom C

The industry has evolved and so have the skills needed to be a successful actuary and risk expert. This session covers the hard and soft skills that an actuary should strive to possess to maximize their impact and value creation. We will also explore various growth opportunities that exist for actuaries and how those can be personally and professionally rewarding.

Moderator: Chelsea Adler, Senior Manager of State Product, Root

Speakers: Dominic Lee, Senior Solutions Advisor, SAS
Rafael Costa, Actuary Partner, Cruise
Josh Taub, Instructor, The Infinite Actuary

CS-8: Autonomous Vehicles: Things an Actuary Should Know

Minneapolis Grand Ballroom

In this session we will speak about autonomous vehicles, how they function, what data is collected and how we can think about quantifying the safety benefits of the technology.

Moderator/Speaker: Tilia Gode, Head of Risk & Insurance, Waymo

Speakers: Ruoshu Chen, Senior Actuary, Waymo
John Scanlon, Staff Safety Researcher, Waymo

CS-29: The Tech Spectrum

Orchestra Ballroom D

The line between Insurtech and Traditional insurers has blurred over the years. Every company sits somewhere on the technology spectrum, and it is important to know how companies got to their position as well as which direction they are going. This session will cover the tradeoffs for investments in technology and innovation and the corresponding results, both short-term and long-term, expected from making those investments.

Moderator/Speaker: Ryan McMahon, SVP Strategy and Corp Dev, CMT

Speakers: Adrian Jones, Partner, HSCM Ventures
Claudine Modlin, VP of Pricing, Root Insurance

CS-23: Mitigation that Matters: A Wildfire Case Study

Marquette Ballroom

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”.

Moderator: Joshua Merck, Senior Manager, Deloitte Consulting

Speakers: Peggy Brinkmann, Actuary, Milliman
Thomas Larsen, Group Manager, CoreLogic

CS-19: Hot Topics for International Actuaries

Rochester

Have you ever wondered what the CAS is doing internationally? Are you interested in the issues being faced by actuaries outside of North America? Come to this session to hear from the CAS VP International on what the CAS is doing to meet the Pillar 3 objective of growing internationally. Also hear from actuaries with experience from outside of North America about the hot topics for international actuaries, whether it is IFRS17, Solvency II, climate change, or ???

Moderator/Speaker: Ron Kozlowski, RTK Actuarial + Professionals Services

Speakers: Kendra Felisky, Senior Actuary and COO, Marcuson Consulting Ltd.
Yvonne Palm, Director of Risk Management, Compliance & Actuarial Services, African Reinsurance Corporation
Nicolás Vega, Director – Actuarial, Koffie Insurance

Tuesday, November 8, 11:45 a.m. - 1:00 p.m.

CS-3: ADAS: Why Isn't It Working? Or Is It???

Orchestra Ballroom A

Using evidence from the CARFAX Vehicle Insights Program, we will investigate how Advanced Driver Assistance Systems (ADAS) are impacting auto insurers. We will review which features are the effective at reducing claims frequency, and drill into the reasons behind the apparent increase in severity for ADAS-equipped vehicles.

Moderator: Bryan Brown, National Sales Executive, CARFAX

Speakers: Donald Hendriks, National Actuarial Consultant, CARFAX
Matthew Moore, Senior Vice President, Highway Loss Data Institute
Dushyant Pattni, Consultant Actuary, Nationwide Insurance

CS-24: Open-Source Actuarial Science with Examples

Orchestra Ballroom B

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. The CAS has its own Github organization, and has allowed the open-science philosophy to be extended to open-source tooling. This session will explore the benefits of open-source tools, and how we should all 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. A live demo will be run in Google Colab. If you want to follow along, all you need is a laptop with a web browser - no prior installation required. Please sign up for the associated round table if you are interested in a hands-on tutorial working session led by the speakers.

Moderator: Aaron Hillebrandt, Principal and Consulting Actuary, Pinnacle Actuarial Resources, Inc.

Speakers: Kenneth Hsu, Lead Actuary, Breach Insurance
John Bogaardt, Chief Actuary, WCF Insurance

📌 🍷 CS-33: Winning the Communication Battle 🟠

Orchestra Ballroom C

Actuarial work is complicated and difficult to understand and so it is hard for non-actuaries to understand our work. The problem is often exacerbated by actuaries having spent 10,000 or more hours studying technical matters but probably less than 1,000 hours developing communication skills. 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 you and your staff become better communicators. We will also cover through two vignettes some of the more difficult communication situations that actuaries face (Presenting to Boards and Delivering Bad News).

Moderator: Kevin Donnelly, Vice President of Actuarial Services, United Healthcare

Speakers: Brian Brown, Consulting Actuary, Milliman
Kathleen Odomirok, Principal, EY

📌 🍷🍷🍷 CS-14: Dislocation Analysis: Segment Detection of Disrupted Rates 🟠

Orchestra Ballroom D

Control of rate changes is particularly challenging for complex insurance products. Multiple risks are covered by these contracts, and each risk requires its own specific modeling. When all these risks are combined and entangled, the cumulative effect may lead to undesired disruptive rate changes.

Moderator: Frank Gribbon, Senior Actuarial Consultant, Personal Auto Products, Verisk

Speakers: Robert Zolla, Consulting Actuary, Milliman
Thomas Holmes, Head of US Actuarial Data Science, Akur8

📌 🍷 CS-26: Spreadsheets vs R or Python? 🟠

Minneapolis Grand Ballroom

Is the actuarial profession changing from using spreadsheets to using programming languages like R or Python? Hear some of you colleagues explain why they have switched! Spreadsheets keep the data in front of the user with the calculations hidden in the background. Traditional coding using R or Python keep the calculations in front of the user, with the data hidden in the background. See some real examples on how typical actuarial tasks are being transformed into R and Python.

Moderator/Speaker: Liam McGrath, Data Scientist, Willis Towers Watson

Speakers: Kevin Dalton, Data Scientist, American Modern Insurance Group
Patrick Yu, Senior Director, Kaiser Permanente

📍 🍷 CS-10: CAS Admissions Department Updates 🟡

Rochester

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.

Speakers: Maggie Lyons, Director of Certification Development, Casualty Actuarial Society
Ashley Zamperini, Director of Admissions, Casualty Actuarial Society
William Wilder, VP Admissions, Casualty Actuarial Society

📍 🍷 CS-12: Commercial Auto – At a Crossroads? 🟢

Marquette Ballroom

After years of adverse loss development and rate increases, are the commercial auto results finally improving?

The first speaker will go over the historical auto results.

The second speaker will provide insights on these results (results are not the same for all commercial auto players, etc,,).

Both speakers will conclude by providing their 2023-24 forecast for commercial auto.

Moderator: Ben Carrier, Managing Director, Aon
Speakers: Thomas Kenia, Senior Managing Director, Aon
Timothy McCarthy, Senior Actuarial Director, Verisk Underwriting Solutions

Wednesday, November 9, 8:00 - 9:15 a.m.

📦 🍒🍒🍒 CS-5: Applications of Gaussian Process Regression Models

Rochester

Gaussian Processes (GP) are stochastic processes, collections of indexed random variables based on the normal distribution. In the context of statistics these processes are well known and well-behaved objects that have been extensively explored.

On the other hand, Gaussian Process Regression (GPR), is a relatively lesser-known procedure based on GP, which can be implemented both for regression and classification problems.

GPR can be defined as a supervised non-parametric technique stemming from the Bayesian field.

This is a relatively novel technique in the field of Machine Learning, only used in some niche applications. Moreover, its use is nearly unknown in Actuarial Science, with only one analysis published in the literature.

The presentation will:

- a) Briefly review the theoretical foundations behind GPR.
- b) Show how to apply suitable reserving algorithms based on GPR on typical insurance data sets.
- c) Compare different approaches in terms of predictive performance and practical usability.

Moderator: Frank Gribbon, Senior Actuarial Consultant, Personal Auto Products, Verisk

Speakers: Marco De Virgilis, Senior Actuarial Data Scientist, Arch Insurance Group
Giulio Carnevale, Reserving Actuary, PartnerRe

📦 🍒🍒 CS-30: Used is the New New: A Changing Auto Market

Orchestra Ballroom D

Over the last 24 months, the new car market has encountered several major disruptions. It began the pandemic shutdowns depressed the demand side of the market equation, then was exacerbated as drivers transitioned to long-term work-from-home arrangements. Then, as the market began to pick up, plant shutdowns, parts shortages, and supply chain disruptions depressed the supply side of the market equation. The used car market has shifted to fill the gaps in the new car market.

Moderator: Gary Wang, Senior Consulting Actuary, Pinnacle Actuarial Resources

Speakers: Donald Hendriks, National Actuarial Consultant, Carfax,
Matthew Moore, Senior Vice President, Highway Loss Data Institute

🍒🍒 CS-22: Introduction to Layered GBM

Orchestra Ballroom A

In this session, the speakers will introduce an innovation on the traditional Gradient Boosting Machine (GBM), which we call Layered GBM. The GBM algorithm has established itself as a strong tool for modelers, but suffers from the reputation as being a complex, black box approach to modeling. We will describe the concept behind the Layered GBM and illustrate how this alternative provides improved interpretability of the model results, without loss of predictiveness, compared to the traditional GBM outputs. We made these adaptations in recognition we are looking at the insurance problem as a whole, and the model outputs need to provide more than a validation of accuracy. This enhanced interpretability can make GBMs more attractive to internal stakeholders and regulators.

Moderator: TBD

Speakers: Justin Milam, Associate Director, Willis Towers Watson
Liam McGrath, Data Scientist, Willis Towers Watson

🍒 CS-32: What Everyone Needs to Know About Bitcoin & Crypto

Orchestra Ballroom C

Bitcoin is the amalgamation of years of development within cryptography, computer science, and economic fields of study. While the technology is new to many, the underlying principles are slow, steady, and stable evolutions of these time-honored disciplines. As headlines and the daily news cycle are quick to jump to conclusions, it's important for the insurance industry to look to the horizon and develop a solid understanding of this technology and how it can play a role in our industry's future.

Moderator: Marty Ellingsworth, Executive Managing Director, JD Power

Speakers: Ravi Sharma, Associate Director, Willis Towers Watson,

🍒🍒 CS-17: From Theory to Practice: Applications and Illustrations of Bias Identification and Mitigation Techniques

Minneapolis Grand Ballroom

The utilization of models and the potential for the presence of bias or disproportionate impact on certain protected classes is a pressing topic in the insurance industry today. Many have weighed in on the topic, from regulatory and advocacy groups to actuaries and data scientists, and the discussion has ranged from holistic to technical. This presentation will bridge the gap by providing practical considerations and illustrations of different approaches to identify and address potential bias. The session will begin by exploring one technique known as Bayesian Improved Surname Geocoding, that has been used across many industries to infer protected class information, specifically race/ethnicity, for the purposes of bias identification and mitigation efforts. The session will then proceed to offer easy to understand mathematical representations of some of the common approaches to identify and mitigate potential bias in actuarial data and models.

Moderator/Speaker: Mallika Bender, DE & I Staff Actuary, Casualty Actuarial Society,

Speakers: Michael Chen, Director, Willis Towers Watson
Marc Elliott, Senior Principal Researcher, RAND Corporation

📅 🍒 CS-15: Enterprise Risk Management – Steering Your Board: Guidance and Buy-In

Orchestra Ballroom B

This session will be represented as a case study and role playing where the Enterprise Risk Professionals will be communicating his/her quarterly ERM and/or annual ORSA report to the Board. What style of presentation is recommended to gain optimum buy-in, understanding, and support from your Board?

Risk Appetite statements are often vague and qualitative, making it challenging to make the connection to day-to-day decision making. In this session, we discuss leading practices for defining risk appetite clearly and quantitatively, providing a direct and actionable line-of-sight to decision making.

Join us in an interactive session where panelists will be involved in role-playing in the interest of generating interactive discussions with the audience.

Moderator/Speaker: Robert Wolf, Vice President and Chief Actuary, StoneTrust Commercial Insurance Company,

Speakers: Michelle Baurkot, Executive Vice President, Gallagher Re
Daniil Shalmiyev, AVP – ERM, Gallagher Re
Raju Bohra, EVP, Gallagher Re

📅 🍒 CS-31: Understanding the Impacts of Climate Change on Atmospheric Perils

Marquette Ballroom

Atmospheric Perils such as Hurricane, Storm Surge, and Wildfire are changing. How are these changes impacting your company's portfolio? This session explores the finding from the Sixth Assessment Report (AR6) of the United Nations (UN) Intergovernmental Panel on Climate Change (IPCC) related to Atmospheric Perils and how these changes have been incorporated into catastrophe models. In addition, we look at a basic example of how your company can use climate-related catastrophe models to project future expected losses given a range of possible global shifts in fossil fuel use.

Moderator: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman

Speakers: Dan Ward, Director, Model Development, Karen Clark & Company,
Michael Tine, Senior Director, Karen Clark & Company

Wednesday, November 9, 9:45 – 11:00 a.m.

📅 🍒 CS-4: Application of Bayesian MCMC to Reserving Noisy Data

Orchestra Ballroom D

This session will present a couple of short case studies illustrating how to estimate reserves by applying Bayesian MCMC concepts on noisy data. The first case study will apply to low frequency / high severity lines of business such as Directors and Officers or Umbrella, where the loss triangle shows zero payments in early development months and the claim severity has a heavy tail. The next case will apply to incorporating changes to reserving models, such as organizational, business, or inflationary changes.

Moderator: Carl Ashenbrenner, Principal and Consulting Actuary, Milliman

Speakers: Michael Larsen, Retired

📅 🍷 CS-7: Revision of ASOP 12 Risk Classification – and Other Related Activities

Minneapolis Grand Ballroom

The Actuarial Standards Board is proposing changes to ASOP 12 on Risk Classification.

Insurance rates in many states shall not be “excessive, inadequate, or unfairly discriminatory.” The actuarial profession has long considered that rates meet those rating laws if the rates are actuarially sound. But understanding the precise meanings of “actuarially sound” and “unfairly discriminatory” requires a more nuance understanding. Today’s changing views which reflect the nature of social structures and advances in predictive analytics has caused reconsideration of whether existing notions of unfair discrimination and actuarial soundness might perpetuate socially undesirable inequities in insurance products, services, prices (rates), and availability.

Moderator: Ron Kozlowski, RTK Actuarial + Professionals Services

Speakers: Bob Miccolis, Managing Principal, Miccolis Consulting LLC,
Brian Mullen, VP, Pricing & Analytics, AmFamRe, American Family Insurance Group
Dave Sandberg, David Sandberg LLC

📅 🍷 CS-16: Flood Insurance: An Update

Orchestra Ballroom A

Is the US making progress on flood risk mitigation? Is the Gov’t going to finally accept reasonable actuarially justified flood rates? Are new flood programs being formed despite the increasing risks from climate change? How is climate change going to affect flood risk? What new tools are being introduced to help insurers manage flood risk? How does the NAIC play a role in influencing flood policies across the U.S.?

Moderator: Joseph Becker, Senior Catastrophe Advisor, Hydrologist, Guy Carpenter

Speakers: Andy Neal, Chief Actuary, National Flood Insurance Program, FEMA
Derek Lynch, CUO, reThought Insurance
Trevor Burgess, President & CEO, Neptune Flood

📅 🍷 CS-20: How Inflation and Enhanced Safety Features are Changing the Personal Auto Insurance Market

Orchestra Ballroom B

The annual inflation rate was at 9.1% through June of 2022, including rates of 59.9% for gasoline, 11.4% for new vehicles, and 1.7% for used cars and trucks. At the same time, vehicles are increasingly included with enhanced safety features that impact the insurance industry in a variety of ways. In this session, we will discuss the changes in the new and used vehicle market since 2020, the evolution of enhanced safety features, how these are impacting personal auto loss costs, and how companies are reacting.

Moderator: Katey Walker, Senior Director, WTW

Speakers: Matthew Moore, Senior Vice President, Highway Loss Data Institute,
Justin Milam, Associate Director, WTW
Marty Ellingsworth, Executive Managing Director, J. D. Power

📅 🍒 CS-1: A.M. Best Mock Rating Hearing 🟩

Marquette Ballroom

This session provides look at the AM Best rating committee process. A hypothetical insurance company will be used to illustrate the typical rating committee meeting process. included will be illustrations and examples of how A.M. Best looks at items such as innovation, ESG, and Enterprise Risk Management, BCAR, and operating performance in combination. This session is meant to be interactive with the audience to the extent that the audience will be allowed to provide their assessments (through voting) to the four components of the rating process, including voting on whether to upgrade, downgrade, or keep neutral the rating of the hypothetical company. The session will include Q&A where audiences can ask specific inquiries and clarifications on the rating process, especially on how AM Best values ERM, ESG, and innovation.

Moderator: Robert Wolf, Vice President and Chief Actuary, StoneTrust Commercial Insurance Company

Speakers: Victoria Riggs, Associate Director, AM Best Company

📅 🍒 CS-28: Tapping Into the Next Generation of Actuaries 🟩

Orchestra Ballroom C

In an industry where emerging trends and issues are consistently making companies innovate and diversify their skill sets, how are the next generation of actuaries prepared to make an immediate impact when entering the workforce? Is your company tapping into the full potential of new candidates and their unique talents? This interactive session will feature this year's CAS University award winners and highlight the innovative ways they are preparing their students to becoming actuaries of the future.

Moderator: Erin Olson, Chair, University Engagement Advisory Working Group

Speakers: Gao Niu, Assistant Professor, Bryant University

Kristopher Presler, Professor, Actuarial Program Director, University of Wisconsin - Eau Claire

Douglas Bujakowski, Assistant Professor of Actuarial Science and Risk Management, Drake University

Pallav Baruah, Professor, Sri Sathya Sai Institute of Higher Learning (SSSIHL)

PERSONAL ATTENDANCE RECORD

Featured Speaker

November 7 – 9:30 a.m. – 10:30 a.m. (1.2 CE)

| | | | | |
|--------------------------|------|---|--|----------------------------|
| <input type="checkbox"/> | FS-1 |   | Featured Speaker Address: Cathy O'Neil | Minneapolis Grand Ballroom |
|--------------------------|------|---|--|----------------------------|

Monday Luncheon Roundtables (first come, first served)

November 7 – 11:30 a.m. – 1:00 p.m. (1 CE)

| | | | | |
|--------------------------|------|--|---|--------------------|
| <input type="checkbox"/> | L-RT | | Learn about Us — Abacus Actuaries | Marquette Ballroom |
| <input type="checkbox"/> | L-RT | | Learn about Us - Network of Actuarial Women and Allies (NAWA) | Marquette Ballroom |














General Session I

November 7 – 1:00 p.m. – 2:30 p.m. (1.8 CE)

| | | | | |
|--------------------------|------|---|---|----------------------------|
| <input type="checkbox"/> | GS-1 |    | Chief Actuary Roundtable: A Discussion on Diversifying the Pipeline and Ensuring All Our Members Thrive | Minneapolis Grand Ballroom |
|--------------------------|------|---|---|----------------------------|

Concurrent Sessions I

November 7 – 3:00 p.m. – 4:15 p.m. (1.5 CE)

| | | | | |
|--------------------------|-------|---|--|----------------------------|
| <input type="checkbox"/> | CS-2 |   | The Actuarial Meaning of Insurance | Orchestra Ballroom A |
| <input type="checkbox"/> | CS-27 |  | Take the Pledge — Be an Actuary of the Future! | Orchestra Ballroom B |
| <input type="checkbox"/> | CS-18 |    | The Future of Enterprise Risk Management: Six Future Scenarios | Orchestra Ballroom C |
| <input type="checkbox"/> | CS-13 |  | Deep Dive on the Code of Conduct 2.0 | Orchestra Ballroom D |
| <input type="checkbox"/> | CS-6 |    | Are MGAs the Future of Underwriting? | Symphony Ballroom |
| <input type="checkbox"/> | CS-21 |    | Inflation — An Update | Minneapolis Grand Ballroom |

Monday Afternoon Roundtables

November 7 – 4:30 p.m. – 5:20 p.m. (1 CE)

| | | | | |
|--------------------------|------|--|--|----------------------|
| <input type="checkbox"/> | RT-3 | | CAS Research: Approaches to Address Racial Bias | Orchestra Ballroom A |
| <input type="checkbox"/> | RT-8 | | Sustainability and Insurance: Should It Matter to Your Organization? | Orchestra Ballroom B |

PERSONAL ATTENDANCE RECORD








Tuesday Morning Roundtables

November 8 – 7:00 a.m. – 7:50 a.m. (1 CE)

| | | | | |
|--------------------------|------|--|---|----------------------|
| <input type="checkbox"/> | RT-4 | | DEI in the Actuarial Profession | Orchestra Ballroom B |
| <input type="checkbox"/> | RT-5 | | How Work has Changed as a Result of COVID | Orchestra Ballroom C |

General Sessions 2/3

November 8 – 8:00 a.m. – 9:30 a.m. (1.8 CE)

| | | | | |
|--------------------------|------|---|---|----------------------------|
| <input type="checkbox"/> | GS-2 |     | Key Risks and Opportunities: Today and Tomorrow | Minneapolis Grand Ballroom |
| <input type="checkbox"/> | GS-3 |    | Embedded Insurance and How It Could Change the Industry Landscape | Marquette Ballroom |

Concurrent Sessions 2










November 8 – 10:00 a.m. – 11:15 a.m. (1.5 CE)

| | | | | |
|--------------------------|-------|---|--|----------------------------|
| <input type="checkbox"/> | CS-25 |    | Penalized Regression - Between Credibility and GBM | Orchestra Ballroom A |
| <input type="checkbox"/> | CS-11 |    | Challenges and Tips for Researching DEI Topics | Orchestra Ballroom B |
| <input type="checkbox"/> | CS-9 |   | Building the Actuary of the Future | Orchestra Ballroom C |
| <input type="checkbox"/> | CS-29 |   | The Tech Spectrum | Orchestra Ballroom D |
| <input type="checkbox"/> | CS-23 |    | Mitigation that Matters: A Wildfire Case Study | Marquette Ballroom |
| <input type="checkbox"/> | CS-8 |   | Autonomous Vehicles: Things an Actuary Should Know | Minneapolis Grand Ballroom |
| <input type="checkbox"/> | CS-19 |   | Hot Topics for International Actuaries | Rochester |

PERSONAL ATTENDANCE RECORD

Concurrent Sessions 3

November 8 – 11:45 a.m. – 1:00 p.m. (1.5 CE)

| | | | | |
|--------------------------|-------|---|--|----------------------------|
| <input type="checkbox"/> | CS-3 |  | ADAS: Why Isn't It Working? Or Is It??? | Orchestra Ballroom A |
| <input type="checkbox"/> | CS-24 |  | Open-Source Actuarial Science with Examples | Orchestra Ballroom B |
| <input type="checkbox"/> | CS-33 |  | Winning the Communication Battle | Orchestra Ballroom C |
| <input type="checkbox"/> | CS-14 |  | Dislocation Analysis: Segment Detection of Disrupted Rates | Orchestra Ballroom D |
| <input type="checkbox"/> | CS-12 |   | Commercial Auto — At a Crossroads? | Marquette Ballroom |
| <input type="checkbox"/> | CS-26 |   | Spreadsheets vs R or Python? | Minneapolis Grand Ballroom |
| <input type="checkbox"/> | CS-10 |  | CAS Admissions Department Updates | Rochester |

Tuesday Afternoon Roundtables

November 8 – 2:30 p.m. – 3:20 p.m. (1 CE)

| | | | | |
|--------------------------|------|--|--|----------------------|
| <input type="checkbox"/> | RT-1 | | Current Industry Trends Impacting Hiring | Rochester Room |
| <input type="checkbox"/> | RT-2 | | CAS Admissions Update - Roundtable | Orchestra Ballroom C |
| <input type="checkbox"/> | RT-6 | | New ACAS Roundtable: The Associate's Perspective | Orchestra Ballroom B |
| <input type="checkbox"/> | RT-7 | | Open Source Actuarial Science Chainladder-Python Working Session | Orchestra Ballroom D |

Tuesday Afternoon Vendor Demonstration

November 8 – 2:30 p.m. – 3:20 p.m. (1 CE)

| | | | | |
|--------------------------|------|--|--|----------------------|
| <input type="checkbox"/> | VD-1 | | Using Insurance Data to Improve Risk Scoring | Orchestra Ballroom A |
|--------------------------|------|--|--|----------------------|

Wednesday Morning Roundtable








November 9 – 7:00 a.m. – 7:50 a.m. (1 CE)

| | | | | |
|--------------------------|------|--|----------------------|----------------------|
| <input type="checkbox"/> | RT-9 | | Construction Defects | Orchestra Ballroom B |
|--------------------------|------|--|----------------------|----------------------|

PERSONAL ATTENDANCE RECORD







Concurrent Sessions 4

November 9 – 8:00 a.m. – 9:15 a.m. (1.5 CE)

| | | | | |
|--------------------------|-------|---|--|----------------------------|
| <input type="checkbox"/> | CS-22 |  | Introduction to Layered GBM | Orchestra Ballroom A |
| <input type="checkbox"/> | CS-15 |  | Enterprise Risk Management – Steering Your Board: Guidance and Buy-In | Orchestra Ballroom B |
| <input type="checkbox"/> | CS-32 |  | What Everyone Needs to Know About Bitcoin & Crypto | Orchestra Ballroom C |
| <input type="checkbox"/> | CS-30 |  | Used is the New New: A Changing Auto Market | Orchestra Ballroom D |
| <input type="checkbox"/> | CS-31 |  | Understanding the Impacts of Climate Change on Atmospheric Perils | Marquette Ballroom |
| <input type="checkbox"/> | CS-17 |  | From Theory to Practice: Applications and Illustrations of Bias Identification and Mitigation Techniques | Minneapolis Grand Ballroom |
| <input type="checkbox"/> | CS-5 |  | Applications of Gaussian Process Regression Models | Rochester |

Concurrent Sessions 5

November 9 – 9:45 a.m. – 11:00 a.m. (1.5 CE)

| | | | | |
|--------------------------|-------|---|--|----------------------------|
| <input type="checkbox"/> | CS-16 |  | Flood Insurance: An Update | Orchestra Ballroom A |
| <input type="checkbox"/> | CS-20 |  | How Inflation and Enhanced Safety Features are Changing the Personal Auto Insurance Market | Orchestra Ballroom B |
| <input type="checkbox"/> | CS-28 |  | Tapping Into the Next Generation of Actuaries | Orchestra Ballroom C |
| <input type="checkbox"/> | CS-4 |  | Application of Bayesian MCMC to Reserving Noisy Data | Orchestra Ballroom D |
| <input type="checkbox"/> | CS-1 |  | A.M. Best Mock Rating Hearing | Marquette Ballroom |
| <input type="checkbox"/> | CS-7 |  | Revision of ASOP 12 Risk Classification – and Other Related Activities | Minneapolis Grand Ballroom |

General Session 4

November 9 – 11:30 a.m. – 1:00 p.m. (1.8 CE)

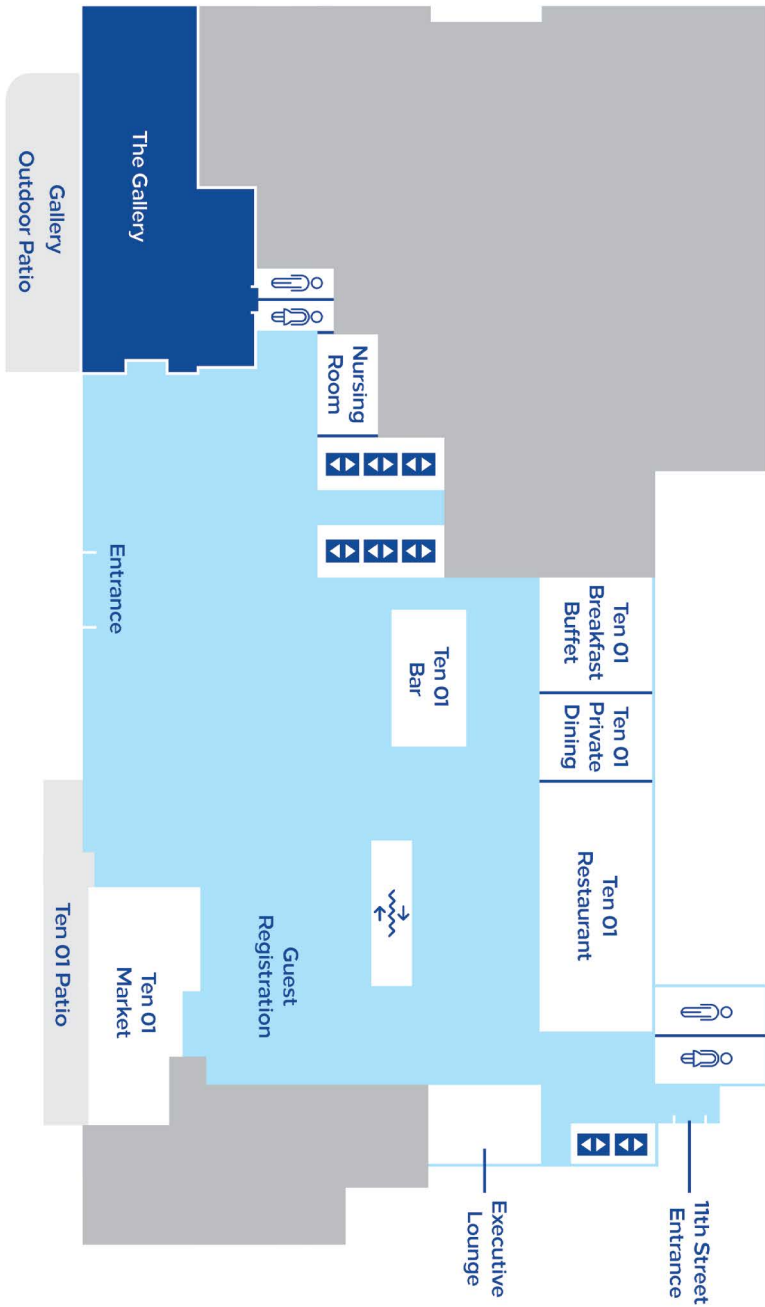
| | | | | |
|--------------------------|------|---|--|----------------------------|
| <input type="checkbox"/> | GS-4 |  | The Future of Work Post-COVID-19 : Re-imagining Our Work in the “New Normal” | Minneapolis Grand Ballroom |
|--------------------------|------|---|--|----------------------------|

HOTEL MAP

FLOOR MAP KEY

- Meeting/Conference Rooms
- Amenities
- Public Space
- Private
- Outdoor Space
- Stairs and Escalators
- Elevators

Lobby Level

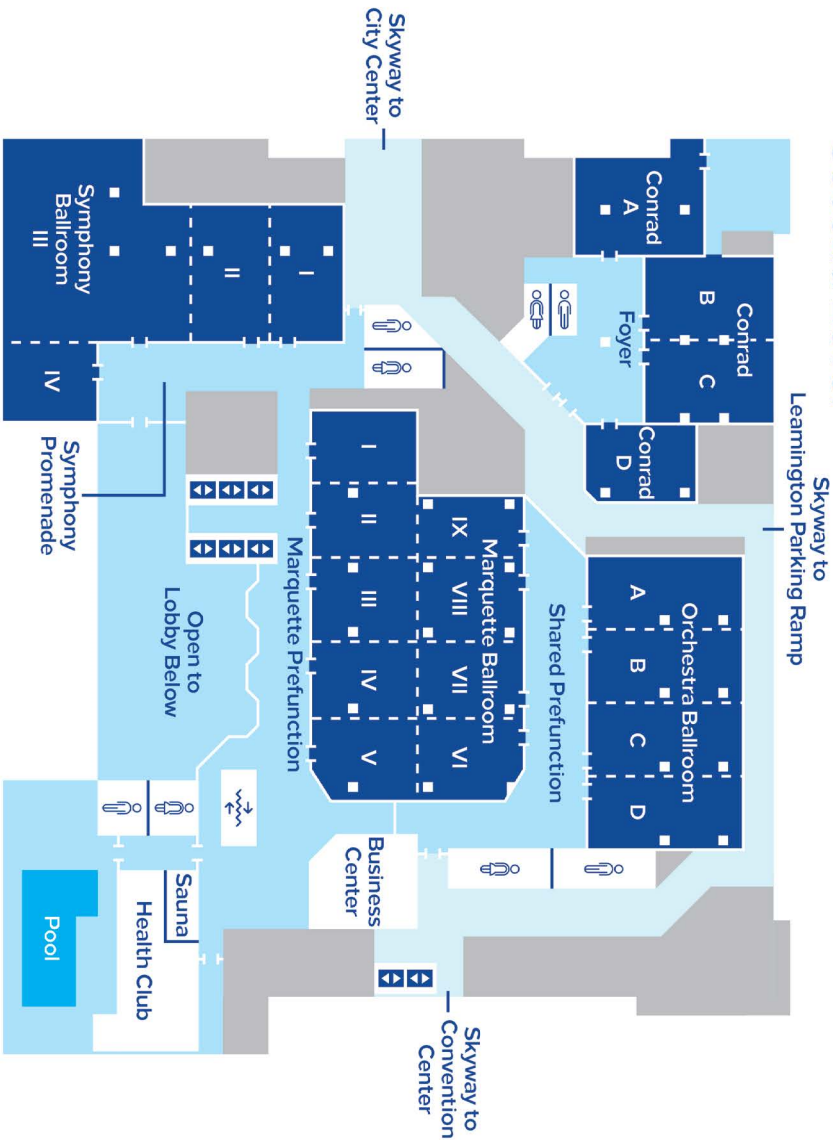


HOTEL MAP

FLOOR MAP KEY

- Meeting/Conference Rooms
- Amenities
- Public Space
- Private
- Outdoor Space
- Skywalk
- Stairs and Escalators
- Elevators

Second Level



HOTEL MAP

FLOOR MAP KEY

- Meeting/Conference Rooms
- Amenities
- Public Space
- Private
- Outdoor Space
- Stairs and Escalators
- Elevators

Third Level

