ANNUAL
— MEETING —

November 10-13, 2019
Honolulu, HI

Hilton Hawaiian Village
Waikiki Beach Resort

CAS

CAS

Expertise. Insight.
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2019 ANNUAL MEETING

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Antitrust Notice

The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of U.S. antitrust laws. The full CAS Antitrust Compliance Policy (http://bit.ly/20UMw6Z) clarifies prohibited activities and the responsibility of all attendees.

General Information

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

Speaker Opinions

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

Registration Hours

The registration desk will be open as follows at the Coral Lounge :

Sunday, November 10 - 3:00 p.m. – 6:30 p.m.

Monday, November 11 - 7:00 a.m. – 4:30 p.m.

Tuesday, November 12 - 7:00 a.m. – 12:15 p.m.

Wednesday, November 13 - 7:00 a.m. – 11:30 a.m.

Security Note: When leaving the meeting room for an extended period of time, please take valuables and personal belongings with you. Neither the CAS nor the Hilton Hawaiian Village Waikiki Beach Resort may be held responsible for lost or stolen items.

Wireless Access

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

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If you cannot access Facebook, Twitter and LinkedIn from your office, please consider signing up to follow us from your personal account at home.

Please visit our website at casact.org and click the social media widgets to find our pages!

Tweet at the CAS Annual Meeting!

We want to hear from you! Tweet about the Annual Meeting educational sessions and meeting events using **#CASAnnual**.

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We're running a custom filter during the Tuesday Evening event at the Great Lawn of the Hilton Hawaiian Village.

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Sunday: Snap a photo with the CAS logo... get creative!

Monday: Get to know our Exhibitors! Tweet us a photo from a booth in the exhibit hall.

Tuesday: Tag us in your screenshot of the #CASAnnual Snapchat Filter!

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Celebration of New Members
Monday, November 11, 8:00 a.m. – 8:45 a.m., Tapa Ballroom

All meeting attendees are invited and encouraged to attend this session. Come celebrate the achievements of new CAS members!

Tuesday Buffet Dinner at Great Lawn
6:00 p.m. – 9:00 p.m.

No Buffet Dinner tickets available for purchase onsite.

Hawaii is the gathering place of the Pacific; thus, the evening's entertainment is a spectacular presentation of the Polynesians throughout the Pacific — the Tahitians, the Samoans, the Fijians, the Maori and, of course, the Hawaiians. Mingle with other attendees while taking a cultural journey throughout the South Pacific via several stages located on the Great Lawn of the Hilton Hawaiian Village, offering breathtaking views of the Duke Kahanamoku Lagoon. Enjoy authentic entertainment while indulging in a taste of Hawaii with a fresh farm-to-table experience featuring local ingredients.

Sessions by Theme
Each concurrent session is grouped by a primary theme, although sessions may cover multiple themes. See session titles that begin in the section on "General and Concurrent Sessions."

Sunday, November 10

3:00 p.m. – 6:30 p.m.	Registration...
5:00 p.m. – 6:30 p.m.	Recognition Reception for New Associates and their Spouses/Guests ....
	Group Photos of New Associates....................
6:30 p.m. – 7:30 p.m.	Welcome Reception ....

Monday, November 11

7:00 a.m. – 4:30 p.m.	Registration...
7:00 a.m. – 8:30 a.m.	Continental Breakfast & Exhibits..................
8:00 a.m. – 8:45 a.m.	Welcome, New Member Recognition, Celebration of New Members.....................
8:45 a.m. – 9:15 a.m.	Refreshment Break & Exhibits ....
8:45 a.m. – 9:15 a.m.	New Member Group Photo Session ....
9:15 a.m. – 10:15 a.m.	Featured Speaker ....
10:15 a.m. – 11:00 a.m.	Presidential Address and Business Session ....
11:00 a.m. – 11:30 a.m.	Refreshment Break & Exhibits ....
11:30 a.m. – 12:45 p.m.	General Session I...
12:45 p.m. – 1:45 p.m.	Luncheon Sponsored by Milliman................

MEETING SCHEDULE

1:45 p.m. – 2:35 p.m. **Concurrent Sessions 1**

Coral 1	Coral 2	Hibiscus Suite	
DD-1	C-57	C-45	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-31	C-29	C-7	

2:35 p.m. – 2:55 p.m. Transition Break

2:55 p.m. – 3:45 p.m. **Concurrent Session 2**

Coral 1	Coral 2	Hibiscus Suite	
DD-2	C-40	C-36	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-35	C-17	C-54	

3:45 p.m. – 4:15 p.m. Refreshment Break & Exhibits ....

4:15 p.m. – 5:05 p.m. **Concurrent Sessions 3**

Coral 1	Coral 2	Hibiscus Suite	
C-11	C-17B	C-26	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-43	C-20B	C-54B	

5:30 p.m. – 6:30 p.m. Officers' Reception for New Fellows
and their Spouses/Guests..............................

Remainder of evening is yours to enjoy.

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-20	C-15	C-27

	S Pacific 3-4	Tapa 1	Tapa 2-3
	C-37	C-5	C-55

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-2	C-1	C-42

	S Pacific 3-4	Tapa 1	Tapa 2-3
	C-33	C-30	C-23

.... Coral 3-5

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-56	C-52	R-3

	S Pacific 3-4	Tapa 1	Tapa 2-3
	C-18	C-42B	C-48

.... Great Lawn

Tuesday, November 12

7:00 a.m. – 12:15 p.m.	Registration...
7:00 a.m. – 9:00 a.m.	Continental Breakfast & Exhibits...................
8:00 a.m. – 9:15 a.m.	General Session II......................................
	General Session III ....
8:40 a.m. – 4:15 p.m.	Student Program ....
9:15 a.m. – 9:35 a.m.	Transition Break
9:35 a.m. – 10:25 a.m.	**Concurrent Session 4**

Coral 1	Coral 2	Hibiscus Suite	
C-53	C-30B	C-12	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-32	C-34	C-7B	

10:25 a.m. – 10:55 a.m.	Refreshment Break & Exhibits.......................
10:55 a.m. – 11:45 a.m.	**Concurrent Session 5**

Coral 1	Coral 2	Hibiscus Suite	
C-41	C-58	C-28	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-19	C-51	C-8	

11:45 a.m. – 12:05 p.m.	Transition Break

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-24	C-1B	C-2B

	S Pacific 3-4	Tapa 1	Tapa 2-3
	DD-3	C-44	C-55B

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-24B	R-2	C-11B

	S Pacific 3-4	Tapa 1	Tapa 2-3
	DD-4	C-13	C-22

12:05 p.m. – 12:55 p.m.   **Concurrent Session 6**

Coral 1	Coral 2	Hibiscus Suite	
C-39	C-3	C-14	

Nautilus Suite	Sea Pearl 1-4	S Pacific 1-2	
C-37B	C-47	C-53B	

12:55 p.m. – 2:30 p.m.   Lunch on Your Own

2:30 p.m. – 3:30 p.m.   Roundtables

Coral 2	Hibiscus Suite	Kahili Suite	Nautilus Suite	
RT-3	RT-4	RT-1	RT-6	

2:40 p.m. – 3:30 p.m.   Additional Concurrent Session (livestream)..

3:30 p.m. – 5:00 p.m.   Diversity Reception

3:40 p.m. – 4:30 p.m.   Additional Concurrent Session (livestream)..

4:40 p.m. – 5:30 p.m.   Special Concurrent Session (livestream)..
人工智能（AI）在车险定价中的
应用及相关监管的思考

6:00 p.m. – 9:00 p.m.   Tuesday Buffet Dinner at Great Lawn

	Honolulu 1	Honolulu 2/3	Kahili Suite
	C-15B	C-50	C-52B

	S Pacific 3-4	Tapa 1	Tapa 2-3
	DD-5	C-5B	C-9

	Sea Pearl 1-4	S Pacific 1-2	S Pacific 3-4
	RT-7	RT-8	RT-2

Wednesday, November 13

7:00 a.m. – 11:30 a.m.   Registration..

7:00 a.m. – 9:00 a.m.   Continental Breakfast & Exhibits.....................

8:00 a.m. – 8:50 a.m.   **Concurrent Session 7**

Coral 1	Coral 2	Honolulu 1	
C-13B	C-6	C-27B	

Sea Pearl 1-4	S Pacific 1-2	S Pacific 3-4	
C-29B	C-38	C-48B	

8:50 a.m. – 9:10 a.m.   Transition Break

9:10 a.m. – 10:00 a.m.   **Concurrent Session 8**

Coral 1	Coral 2	Honolulu 1	
C-21	R-4	C-19B	

Sea Pearl 1-4	S Pacific 1-2	S Pacific 3-4	
C-46	C-23B	C-3B	

10:00 a.m. – 10:30 a.m.   Refreshment Break & Exhibits ....

10:30 a.m. – 11:45 a.m.   General Session & Adjournment...................

	Honolulu 2/3	Kahili Suite	Nautilus Suite
	C-25	C-4	R-1

	Tapa 1	Tapa 2-3
	C-10	C-16B

	Honolulu 2/3	Kahili Suite	Nautilus Suite
	C-25B	C-39B	C-33B

	Tapa 1	Tapa 2-3
	C-41B	C-49

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❑ Innovation and Trust: Building an Ethical Foundation for Artificial Intelligence

Monday, November 11, 9:15 a.m. - 10:15 a.m., Tapa Ballroom

Susan Etlinger is a globally recognized expert in digital strategy, with a focus on artificial intelligence, AI ethics and big data. In addition to her work at Altimeter, Etlinger is a senior fellow at the Centre for International Governance Innovation, an independent, non-partisan think tank based in Canada. She is also a member of the U.S. Department of State Speaker Program, which recruits dynamic American experts to engage international audiences on topics of strategic importance to the United States. Etlinger 's TED talk, "What Do We Do With All This Big Data?" has been translated into 25 languages and has been viewed more than 1.3 million times. Her research is used in university curricula around the world, and she has been quoted in numerous media outlets including *The Wall Street Journal*, *Fast Company*, *The New York Times* and the BBC. Etlinger holds a bachelor of arts in rhetoric from the University of California at Berkeley.

BETTER.

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

2019 Annual Meeting – 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

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GENERAL SESSION

Monday, November 11, 11:30 a.m. – 12:45 p.m.

❏ ✿ **G-1: Actuarial Challenges Around the World** 🎤

Tapa Ballroom

The contexts in which property-casualty actuaries operate can vary widely from place to place and from time to time. Several dimensions affect the conduct and delivery of our work in important ways — cultural, legal, economic and regulatory environments; catastrophe exposure; market size, stage of development and competitive dynamics; data availability and quality; and actuarial profession development.

In this session we will explore these effects and how they relate to similarities and differences in the roles, activities and work products of property-casualty actuaries around the world. Four panelists from distinct backgrounds will illustrate, compare and contrast, and discuss some of the unique characteristics and issues in their environments. They will explore the implications for actuaries and for the actuarial profession.

Panelists:	Jefferson Gibb, Marc Tardif, Dehong "Derek" Xu, Ana María Ramírez Lozano
Moderator:	Ran Guo

CONCURRENT SESSIONS

Monday, November 11, 1:45 p.m. – 2:35 p.m.

❑ ✿ DD-1: Cyber Insurance Overview (Part 1) 🎤

Coral 1 (Primary theme: Cyber)

Reading the pre-work assignment is recommended before attending this session. See Meeting app for reading material.

A panel consisting of underwriters, brokers and actuaries will share their perspectives on the cyber insurance market as well as provide an update on key trends, major challenges, potential solutions and other emerging topics.

Panelists: Eduard Alpin, Danny Arnett, Jonathan Laux, Michelle Chia, Steven White

❑ ✿ ✿ C-57: Wheels – Commercial Auto is Getting Personal 🎤

Coral 2 (Primary theme: Commercial Lines)

This session will provide an update to the commercial auto industry experience, investigating why the results continue to be rather challenging, and including a holistic analysis of lengthening LDFs, pressures on ILFs, corresponding rate changes, and other issues.

Panelists: Jennifer Stevens, John Buchanan

❏ ✿ ✿ C-45: The Royal Commission Report – Australia 🎤

Hibiscus (Primary theme: International)

The session covers the independent review of the Australian financial sector, which has broad implications for the management, design and pricing of general insurance products. The review places customers interest's front and center.

Panelist: Jefferson Gibbs

❏ ✿ ✿ C-20: FPI's Ten Most Wanted (ASOP Considerations) 🎤

Repeated on Monday at 4:15 p.m.

Honolulu 1 (Primary theme: Professionalism)

The fully professional issuer (FPI) of actuarial work products should know the Actuarial Standards of Practice by heart. In this session attendees will determine which considerations from a select number of ASOPs our panel of experts will address.

Panelists: Laura Maxwell, Abby Sternberg, John Wade

❅ C-15: Driving Excellent Customer Experience in UBI Programs 🎤

Repeated on Tuesday at 12:05 p.m.

Honolulu 2/3 (Primary theme: Emerging Risks)

This presentation will investigate the impact different phone distraction features have on a driver's risk profile; demonstrate the effectiveness of feedback in improving distracted driving; and outline techniques and best practices to ensure the quality of the customer experience.

Panelists: Katherine Dalis, Whitney Sykora

❅ ❅ C-27: Ineffective ERM – Facing Obstacles to Achieving Full Potential: A Case Study 🎤

Repeated on Wednesday at 8:00 a.m.

Kahili (Primary theme: ERM)

Join us in an interactive audience participation session where the panelists will illustrate and act out a real-life, but disguised, case study that considers obstacles to achieving full potential in ERM programs.

Panelists: Michael Speedling, Robert Wolf

❑ ✿ ✿ **C-31: Loss Reserving Topics using CAS Loss Simulator Tool** 🎤

Nautilus (Primary theme: Reserving)

This session will introduce the audience to the CAS Loss Simulator Tool and use it to study some loss reserving topics, such as impacts of varying degrees of correlation between lines of business on reserve ranges and impacts of changing risk profiles over time on loss development.

Panelists: Ziyi Jiao, Xin Cao, Hai You

❑ ✿ ✿ **C-29: Isn't it True?** 🎤

Repeated on Wednesday at 8:00 a.m.

Sea Pearl 1-4 (Primary theme: Reserving, Risk Theory)

The session will question two widely held actuarial beliefs, presenting counter-points based on the summing of independent risks by convolution. The first proposition: the Bornhuetter-Ferguson method is deterministic. The second proposition: severity risk is diversifiable but frequency risk is not.

Panelists: James Ely, Jingtao (Ethel) Wang, Guang Li

❏ ❀ ❀ ❀ C-7: An Application of Machine Learning in Rating 🎤

Repeated on Tuesday at 9:35 a.m.

S Pacific 1-2 (Primary theme: Predictive Modeling)

Under certain circumstances, Generalized Linear Models (GLMs) fail to provide adequate predictive accuracy. Machine Learning algorithms can produce significant gains in model predictive power but have generally been met with skepticism by the Insurance Industry.

Panelists:　　　Caolan Kovach-Orr, Lijuan Zhang

❏ ❀ ❀ C-37: Perspectives on Predictive Modeling

Repeated on Tuesday at 12:05 p.m.

S Pacific 3-4 (Primary theme: Predictive Modeling)

This panel will demonstrate the valid, yet often conflicting perspectives on the use of predictive modeling in insurance. This interactive session will identify bottlenecks, constraints and areas to compromise to best incorporate analytics into the insurance industry.

Panelists:　　　Adrian Cuc, Kristen Dardia, Christopher Turner, Randall Jacobson

❏ ✿ C-5: Actuary or Data Scientist or Both

Repeated on Tuesday at 12:05 p.m.

Tapa 1 (Primary theme: Other)

This session will discuss how companies can utilize the very unique but very differing skill sets of actuaries and data scientists to build the best analytics team possible.

Panelists: Cheng-Sheng Peter Wu, Kimberly Holmes

❏ ✿ C-55: Visual Thinking – Data Visualization for Actuaries and Data Scientists 🎤

Repeated on Tuesday at 9:35 a.m.

Tapa 2-3 (Primary theme: Other)

This session will provide actionable insights into the rapidly evolving data visualization realm and empower actuaries and data scientists with data visualization tools to achieve high-impact results in storytelling and decision-making.

Panelists: Marcela Granados, Corey Alfieri, Nan Zhang

CONCURRENT SESSIONS

Monday, November 11, 2:55 p.m. – 3:45 p.m.

❑ ❀ **DD-2: Cyber Insurance Overview (Part 2)** 🎤

Coral 1 (Primary theme: Cyber)

See Part 1 description on page 26.

Panelists:	Eduard Alpin, Danny Arnett, Jonathan Laux, Michelle Chia, Steven White

❑ ❀ ❀ **C-40: A Quantum Leap in Benchmarking Unpaid Claims** 🎤

Coral 2 (Primary theme: ERM)

In this session you will learn about the most current research on the effectiveness of common actuarial models and their biases based on extensive back-testing. Based on this research you will be able to apply bias adjustments in your work to improve your estimates

Panelist:	Mark Shapland

❀ C-36: Participation Reverse Mortgages - AND - The Path to Credential in China 🎤

Hibiscus (Primary theme: International)

In the first paper, the author proposes propose a novel financial product which can convert the home equity of elder homeowners into continuous cash flow while protecting the lender from the excessive loss from the systematic risk of the real estate market. In the second paper, the author describes the environment of the actuarial credential in China.

Panelists: Ming Pu, Lianzeng Zhang

❀ C-2: Actuarial Think Tank: International Travel Insurance 🎤

Repeated on Tuesday at 9:35 a.m.

Honolulu 1 (Primary theme: Personal Lines)

In this interactive session, participants will act as actuarial teams to expand into the International Travel Insurance Market for personal lines. Each team will be responsible for developing the pricing strategy for one of five different coverages.

Panelists: Christopher Turner, Jared Smollik, Raul Retian, Kristen Dardia

❏ ✿ C-1: Actuarial Approaches for Measuring & Managing Non-Traditional Risks 🎤

Repeated on Tuesday at 9:35 a.m.

Honolulu 2/3 (Primary theme: ERM)

This presentation will provide the theoretical construct for, and practical applications of, applied actuarial and risk analytic techniques in order to analyze several emerging risk areas, namely: interest rates, investment risk, foreign exchange, financial guaranty, recession risk, among others.

Panelists: James McNichols, James Ely, Michael Schmitz

❏ ✿ C-42: Reserving with Machine Learning: Innovations from Loyalty Programs to Insurance 🎤

Repeated on Monday at 4:15 p.m.

Kahili (Primary theme: Reserving)

This session will introduce a new actuarial tool — the snapshot date triangle — and will demonstrate how it can be combined with machine learning to produce a robust and powerful individual claim reserving system.

Panelists: Len Llaguno, Julie Hagerstrand, Pong Woo

❏ ✿ C-35: The New Frontier of Customized Insurance Products 🎤

Nautilus (Primary theme: Emerging Risks)

As more and more medium-sized businesses become more risk savvy and embrace ERM, there is a growing demand for customization of coverage rather than standardized forms. This session will examine the pricing and product development tools being used to address this burgeoning market.

> Panelists: Robert Walling, Andrew Kurata

❏ ✿ C-17: Embrace Driver Data to Create Actionable Insights

Repeated on Monday at 4:15 p.m.

Sea Pearl 1-4 (Primary theme: Personal Lines)

Participate in a behind-the-scenes journey examining driver and vehicle data from initial observations through multiple transformations to create actionable insights. Interactively explore the advantages and disadvantages of different data sources and transformation techniques benefiting from first-hand experiences.

> Panelists: Ben Miners, Ed Rochfort

❑ ✿ C-54: Using Chess to Assess Human Error in Insurance Related Decisions 🎤

Repeated on Monday at 4:15 p.m.

S Pacific 1-2 (Primary theme: Other)

Using recent chess research, we will describe how to predict and reduce human error in insurance, leading to improved business results by influencing customer accidents, modeling choices and business decisions. Using these ideas, participants will practice and brainstorm in small groups.

Panelists: Timur Gareyev , Ross Johnson

❑ ✿ C-33: Natural Catastrophes: Low risk does not mean NO risk 🎤

Repeated on Wednesday at 9:10 a.m.

S Pacific 3-4 (Primary theme: Catastrophes)

Recent natural catastrophe events have shown that low-risk areas can be affected by extreme events. This presentation will review that this phenomena is not unexpected, and it will show how the lack of insurance in low-risk areas has an impact across the entire financial economy.

Panelists: Howard Kunst, James Lynch

❏ ❄ C-30: Lights! Camera! Professionalism! 🎤

Repeated on Tuesday at 9:35 a.m.

Tapa 1 (Primary theme: Professionalism)

Have you ever come across professional dilemmas that you wish you had seen in a skit before facing them? Come and see some fine acting by fellow actuaries while they perform sketches and grapple with such issues. This session may be counted as professionalism credit for continuing education.

Panelists: Rebecca Williams, Sasha Wiegand

❏ ❄ C-23: GLMs, Machine Learning, & More, Oh My! 🎤

Repeated on Wednesday at 9:10 a.m.

Tapa 2-3 (Primary theme: Predictive Modeling)

The presentation is introductory for those not familiar with modeling techniques. It walks through the terminology and deconstructs various modeling methods in a clear and easy to understand way. The panelists will also share actual results and examples of other analytic and machine learning methods.

Panelists: Gary Wang, Michael Chen, Donald Hendriks

CONCURRENT SESSIONS

Monday, November 11, 4:15 p.m. – 5:05p.m.

❑ ❀ ❀ **C-11: Claims Analytics using Multivariate Survival Analysis: A Legal Representation Model** 🎤

Repeated on Tuesday at 10:55 a.m.

Coral 1 (Primary theme: Predictive Modeling)

In this session, we will discuss how questions related to why claimants engage legal representation can be answered using multivariate survival analysis, and how to validate a predictive model when the test data are censored.

> Panelist: Craig Sloss

❑ ❀ **C-17B: Embrace Driver Data to Create Actionable Insights (Repeat)**

Coral 2 (Primary theme: Personal Lines)

See description on page 35.

> Panelists: Ben Miners, Ed Rochfort

❏ ✿ C-26: Improving Start Up Viability Using Captive Insurance Products 🎤

Hibiscus (Primary theme: Ratemaking)

The world of technology start-ups is constantly seeking constantly seeking a competitive edge. Entrepreneurs seek some X factor that will increase the businesses viability by attracting more customers and investors. A growing number of these companies are identifying customized insurance products as a tool that accomplishes these goals.

Panelists: Robert Walling, David Walling

❏ ✿ C-56: Voice Analytics : Creating a Virtual Assistant Actuary 🎤

Honolulu 1 (Primary theme: Other)

The speakers will demonstrate, using one of the voice assistant devices, how real time data is processed and presented using voice command and algorithms.

Panelists: Nikita Sharma, Rishabh Chhabra

❏ ✿ C-52: University Engagement: Training Actuaries for the Real World 🎤

Repeated on Tuesday at 12:05 p.m.

Honolulu 2/3 (Primary theme: Professionalism)

A panel of actuaries passionate about education will discuss the various roles they have in training university students to become future actuaries. The panel will describe methods of engaging college students to prepare them for the actuarial profession.

Panelists:	Erich Brandt, Christina Negley, Krzysztof Ostaszewski, Gregory Fears, Kendra Letang

❏ ✿ ✿ R-3: Real World Meets Industry Standards: IFoA/CAS Paper Tested by Marketplace Realities 🎤

Kahili (Primary theme: Research)

This session will present an overview of the paper, "Analyzing the Disconnect Between the Reinsurance Submission and Global Underwriters' Needs," including a more detailed review of some of the key chapters and real-world aspects of this reference document.

Panelists:	John Buchanan, Ana Mata

❏ ❀ C-43: Riding out the Tsunami! 🎤

Nautilus (Primary theme: Catastrophes)

The session will use the 2011 Tohoku tsunami as a case study to illustrate the modeling capability and the use of model results along with the newly released ASCE 7-16 tsunami design code to improve safety of buildings and infrastructure.

> Panelists: Gary Chock, Kwok Fai Cheung

❏ ❀ ❀ C-20B: FPI's Ten Most Wanted (ASOP Considerations) (Repeat) 🎤

Sea Pearl 1-4 (Primary theme: Professionalism)

See description on page 27.

> Panelists: Laura Maxwell, Abby Sternberg, John Wade

❏ ❀ C-54B: Using Chess to Assess Human Error in Insurance Related Decisions (Repeat) 🎤

S Pacific 1-2 (Primary theme: Other)

See description on page 36.

> Panelists: Timur Gareyev , Ross Johnson

❏ ✿ ✿ C-18: Enterprise Risk Management – Professional Standards of Practice 🎤

S Pacific 3-4 (Primary theme: ERM)

The speakers will provide an interactive illustration of a variety of ERM concepts with the audience, such as risk, risk limit, risk appetite, risk tolerance, risk profile, risk mitigation and economic capital.

Panelists: Michael Speedling, Robert Wolf

❏ ✿ C-42B: Reserving with Machine Learning: Innovations from Loyalty Programs to Insurance (Repeat) 🎤

Tapa 1 (Primary theme: Reserving)

See description on page 34.

Panelists: Len Llaguno, Julie Hagerstrand, Pong Woo

❏ ✿ C-48: Text Mining Even Your Boss Will Understand: Using LDA to Get Data from Free-Form Text 🎤

Repeated on Wednesday at 8:00 a.m.

Tapa 2-3 (Primary theme: Predictive Modeling)

This session will describe latent Dirichlet allocation (LDA) in simple terms and then invite the session participants to follow along in a hands-on LDA analysis using live data and sample code in R and Excel. Data, code and instructions will be available for download prior to or during the session.

Panelists: Bret Shroyer, Andrew Doll

Congratulations to Travelers' newly credentialed CAS actuaries.

ACAS
Chantal Hurtado, Zach Suter,
Zach Westermeyer, Eric Zange

FCAS
Taylor Caligaris, Colin Heydorn, Mary Liao,
Yuyang Wang, Ashley Wirz

We are proud of you and your accomplishments!

TRAVELERS

GENERAL SESSIONS

Tuesday, November 12, 8:00 a.m. - 9:30 a.m.

❑ ❄ **G-2: Actuarial Judgment: Drawing the Line** 🎤

Coral 1-2

Recent U.S. tax court cases and class action lawsuits naming actuaries have shed new light on the issue of client feedback on the actuary's work product. Panelists will draw on their decades of actuarial experience to consider issues such as the extent to which actuaries are required to consider client feedback or qualitative or anecdotal information in their assumptions and judgments. Between feedback that is clearly innocuous and interactions that are clearly designed to pressure an actuary into biasing their assumptions, there is a gray area.

Panelists: Joseph Herbers, Scott Weinstein, Deborah Rosenberg

Moderator: Frank Gribbon

❑ ❀ ❀ G-3: Innovation's Contribution to Financial Strength 🎤 ▶

Tapa 2-3

"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

—*Charles Darwin*

With the increased pace of change in our world, A.M. Best is proposing a new rating criteria on innovation. The first speaker will comment on innovations that he has observed in the industry and innovation trends. The second speaker will provide a high-level overview of how A.M. Best rates companies and where this innovation criteria would fit in. He will also mention the proposed timeline for this criteria release.

Moderator: Benoit Carrier

Panelists: James Gillard, Greg Heerde

CONCURRENT SESSIONS

Tuesday, November 12, 9:35 a.m. – 10:25 a.m.

❏ ✿ **C-53: Use That Data! Predictive Modeling Applications for Claims and Underwriting** 🎤

Repeated on Tuesday at 12:05 p.m.

Coral 1 (Primary theme: Predictive Modeling)

This session will provide some background on the predictive modeling process and how it can be effectively utilized in a claims and underwriting context with insurance companies. Specific examples will be discussed as well as some best practices and important considerations.

    Panelists: Greg Frankowiak, Sang Cho

❏ ✿ **C-30B: Lights! Camera! Professionalism! (Repeat)** 🎤

Coral 2 (Primary theme: Professionalism)

See description on page 37.

    Panelists: Mindy Steichen, Sasha Wiegand

❑ ❀ C-12: Current Challenges and Future Prospects of Fire Insurance in Japan 🎤

Hibiscus (Primary theme: International)

With earthquakes and typhoons taking place every year, Japan is one of the world's most natural disaster-prone countries. This panel will discuss the issues that Japanese P&C insurers have now and how they are coping with the challenges.

Panelists:	Yohei Konishi, Nobuyuki Ozeki, Daisuke Shimamoto, Mitsuru Tomono, Hirohisa Mikogami, Naoki Hamaguchi, Yuuta Uematsu

❑ ❀ C-24: Handling Change in Challenging Times 🎤

Repeated on Tuesday at 10:55 a.m.

Honolulu 1 (Primary theme: Business Skills)

This session will give you the tools, resources and practical strategies to handle difficult challenges and create a lasting and meaningful outcome.

Panelist:	Annabel Chotzen

❑ ❀ C-1B: Actuarial Approaches for Measuring and Managing Nontraditional Risks (Repeat) 🎤

Honolulu 2/3 (Primary theme: ERM)

See description on page 34.

Panelists:	James McNichols, James Ely, Michael Schmitz

❏ ✿ C-2B: Actuarial Think Tank: International Travel Insurance (Repeat) 🎤

Kahili (Primary theme: Personal Lines)

See description on page 33.

Panelists: Christopher Turner, Jared Smollik, Raul Retian, Kristen Dardia

❏ ✿ C-32: Model Data Breach Risk in the Catastrophe Framework 🎤

Nautilus (Primary theme: Catastrophes)

In this session, the presenters will discuss a modeling framework that can be used to assess and quantify the cyberrisk, data breaches in particular, analyzing the trend of data breaches in recent years, presenting the modules of the framework, and explaining the model application to U.S. companies.

Panelists: Na Xu, Margaret Olesen, Jessica Senou

❏ ✿ C-34: New Approaches to Modeling Silent Cyberrisk 🎤

Repeated on Tuesday at 2:40 p.m.

Sea Pearl 1-4 (Primary theme: Cyber)

In this session, the presenters will talk about how they are facing the challenges of managing cyberrisk. The session will focus on case studies and disaster scenarios that can help quantify risk from this monumental challenge.

Panelists: Ridhima Kale, Jonathan Laux

❑   ❀ ❀ ❀ **C-7B: An Application of Machine Learning in Rating (Repeat)** 🎤

S Pacific 1-2 (Primary theme: Predictive Modeling)

See description on page 30.

Panelists: Caolan Kovach-Orr, Lijuan Zhang

❑   ❀ ❀ **DD-3: Loss Reserve Variability: Two Fundamental Models (Part 1)** 🎤

S Pacific 3-4 (Primary theme: Ratemaking)

Reading the pre-work assignment is recommended before attending this session. See Meeting app for reading material.

This mini workshop will be run in back-to-back concurrent sessions. The first session will introduce the Mack model and the second session will introduce the ODP bootstrap model. Participants will receive Excel files prior to the session and are expected to bring their laptop to the sessions in order to complete the exercises.

Panelists: Louise Francis, Mark Shapland

❏ ✿ C-44: The Road Ahead: Evolving Auto Business Models and Autonomous Trucking 🎤

Tapa 1 (Primary theme: Emerging Risks)

Commercial use cases for autonomous vehicle (AV) technology, such as transportation as a service (TaaS) and trucking, are quietly positioning themselves to have a wide-spread impact on insurance in the near future. Join us to gain an understanding of the evolving technology in order to build sound approaches to evaluate and quantify AV risk.

Panelists: Drew Groth, Zachary Schmiesing

❏ ✿ C-55B: Visual Thinking – Data Visualization for Actuaries and Data Scientists (Repeat) 🎤 ▶

Tapa 2-3 (Primary theme: Other)

See description on page 31.

Panelists: Marcela Granados, Corey Alfieri, Nan Zhang

CONCURRENT SESSIONS

Tuesday, November 13, 10:55 a.m. – 11:45 p.m.

❏ ✿ C-41: Recession Likely: Expect a Bend in Trend Lines 🎤

Repeated on Wednesday at 9:10 a.m.

Coral 1 (Primary theme: Emerging Risks)

It has been roughly 11 years since the last recession. There seems to be a substantial chance that the world will head into another major recession in the near term. This session will explain some of the mechanisms involved and the likely impacts on insurance companies.

> Panelist: Gail Tverberg

❏ ✿ ✿ C-58: Workers' Compensation – Current Issues and Future Game Changers

Coral 2 (Primary theme: Workers' Comp)

The specific topics will be a cost comparison of workers' compensation and group health insurance for similar injuries, the NCCI experience rating, and future societal developments that could be game changers on workers' compensation.

> Panelists: Sean Cooper, Raji Chadarevian, Barry Lipton

❏ ✿ ✿ C-28: International (Asian) Property Insurance and Regulation 🎤

Hibiscus (Primary theme: International)

This panel of CAS actuaries working in the Asian market will discuss the current and historical personal and commercial property insurance industry in their respective countries (Japan, China, Malaysia), including rate regulation, product diversity, marketing channels and cultural/demographic influences.

> Panelists: Marcus Yamashiro, Chor Leong Aw Yong, Laurel Hu, Sang Cho

❏ ✿ C-24B: Handling Change in Challenging Times (Repeat) 🎤

Honolulu 1 (Primary theme: Business Skills)

See description on page 47.

> Panelist: Annabel Chotzen

❏ ✿ ✿ R-2: A New and Flexible Regression Model for Ratemaking and Reserving 🎤

Honolulu 2/3 (Primary theme: Research)

A University of Toronto actuarial research group has recently developed a highly flexible nonlinear regression model called the logit-weighted reduced mixture of experts (LRMoE) model that is used for multivariate claim frequencies or severities distributions. This session will explore this model.

> Panelist: Andrei Badescu

❏ ✿ ✿ **C-11B: Claims Analytics using Multivariate Survival Analysis: A Legal Representation Model (Repeat)** 🎤

Kahili (Primary theme: Predictive Modeling)

See description on page 38.

Panelist: Craig Sloss

❏ ✿ **C-19: Extended Warranty Insurance for Electric Vehicles** 🎤

Repeated on Wednesday at 9:10 a.m.

Nautilus (Primary theme: International)

Electric vehicles (EV) have gained more and more attention in recent years. EV battery safety and reliability has become a major concern of consumers. This session will discuss the current China EV market situation, extended warranty product design and other related topics.

Panelist: Ran Kan

❑ ✿ C-51: University Actuarial Programs and the Property-Casualty Industry – CAS University Award Winners Share Their Insights and Best Practices 🎤

Sea Pearl 1-4 (Primary theme: CAS)

What are the innovative ways that universities are incorporating property-casualty into their curriculum, research and industry engagement initiatives? To find out, attend this session presented by representatives from the 2019 CAS University Award winning schools: Illinois State University, University of Connecticut and University of Toronto.

Panelists: Samuel Broverman, Krzysztof Ostaszewski, Patricia Teufel

❑ ✿ ✿ C-8: Artificial Intelligence in Auto Rating and Regulatory Considerations (English) 🎤

S Pacific 1-2 (Primary theme: Ratemaking)

Learn how actuaries can incorporate AI into personal and commercial insurance practices. Panelists offer their regulatory perspectives on incorporating AI in actuarial analyses.

Panelists: Jianlu Xu, Wanchin Chou, Jingtao (Ethel) Wang

❑   ✿ ✿ **DD-4: Loss Reserve Variability: Two Fundamental Models (Part 2)** 🎤

S Pacific 3-4 (Primary theme: Reserving)

See Part 1 description on page 49.

Panelists: Louise Francis, Mark Shapland

❑   ✿ **C-13: Data Science: The Changing Role of a Pricing Actuary** 🎤

Repeated on Wednesday at 8:00 a.m.

Tapa 1 (Primary theme: Ratemaking)

The insurance industry is undergoing a transformation and actuaries get to be in the driver's seat of this data-driven, technology revolution. Actuaries have the perfect background to contribute in this journey.

Panelists: Stephane Provost, Greg Frankowiak

❑ ❀ ❀ **C-22: GLM vs. Machine Learning – A Case Study in Pricing** 🎙 ▶

Tapa 2-3 (Primary theme: Predictive Modeling)

This panel will compare generalized linear models and machine learning approaches and will show the major challenges and advantages of each. The results can be used by pricing actuaries for their predictive modeling work.

Panelists: Debbie (Qianxin) Deng, Jun(John) Zhou

CONCURRENT SESSIONS

Tuesday, November 13, 12:05 p.m. – 12:55 p.m.

❑ ✿ **C-39: Presentations, Conversations and Articulations: Public Speaking For (Those Who are Not) Dummies** 🎤

Repeated on Wednesday at 9:10 a.m.

Coral 1 (Primary theme: Business Skills)

Loosely based on the successful Toastmasters program, this session will cover some communication tips and tricks, including guidelines for presenting technical material to nontechnical audiences. In addition, those attendees who wish will be given the opportunity to practice in short, impromptu speeches.

    Panelist: Amy Brener

❑ ✿ **C-3: Actuarial Trivia Challenge!** 🎤

Repeated on Wednesday at 9:10 a.m.

Coral 2 (Primary theme: Professionalism)

The CAS Professionalism Education Committee presents the latest incarnation of its actuarial trivia format. Using the Kahoot app, audience members will answer a series of multiple-choice trivia questions that will test the depth of their knowledge on the profession's professional standards.

    Panelists: Andrew Dalgaard, Jeff Casaday

❏ ✤ C-14: Demographics Will Challenge Japan's Insurers and Banks

Hibiscus (Primary theme: International)

In this session, panelists will illustrate how Japanese P&C insurers are addressing the challenges associated with an aging population in Japan, as well as with the decline in car ownership among young people. They will compare the impact of demographic changes on P&C insurers with the impact on Japan's life insurance and banking sectors.

      Panelists: Soichiro Makimoto, Tomoya Suzuki

❏ ✤ C-15B: Driving Excellent Customer Experience in UBI Programs (Repeat) 🎤

Honolulu 1 (Primary theme: Emerging Risks)

See description on page 28.

      Panelists: Katherine Dalis, Whitney Sykora

❏ ✤ C-50: Traditional Actuaries Transformed by the Chinese Insurtech Industry 🎤

Honolulu 2/3 (Primary theme: International)

This session will illustrate the current market landscape faced by Chinese P&C insurers, their opportunities and challenges in insurance innovations, as well as the transformation of actuary's role.

      Panelists: Sheen Allen, Xiang Ji

❀ C-52B: University Engagement: Training Actuaries for the Real World (Repeat) 🎤

Kahili (Primary theme: Professionalism)

See description on page 40.

> Panelists: Erich Brandt, Christina Negley, Krzysztof Ostaszewski, Gregory Fears, Kendra Letang

❀ ❀ C-37B: Perspectives on Predictive Modeling (Repeat) 🎤

Nautilus (Primary theme: Predictive Modeling)

See description on page 30.

> Panelists: Adrian Cuc, Kristen Dardia, Christopher Turner, Randall Jacobson

❏ ✻ **C-47: Takaful through the Eyes of an Investor: Opportunities and Challenges** 🎙

Sea Pearl 1-4 (Primary theme: International)

This presentation introduces takaful's differences and similarities compared to insurance and mutual models, the challenges and opportunities in takaful as a business investment, as well as the role than an actuary can play within takaful.

Panelist: Nurul Syuhada Nurazmi

❏ ✻ **C-53B: Use That Data! Predictive Modeling Applications for Claims and Underwriting (Repeat)** 🎙

South Pacific 1-2 (Primary theme: Predictive Modeling)

See description on page 46.

Panelists: Greg Frankowiak, Sang Cho

❏ ✿ ✿ DD-5: Loss Reserve Variability: Two Fundamental Models (Part 3) 🎤

S Pacific 3-4 (Primary theme: Reserving)

See Part 1 description on page 49.

Panelists: Louise Francis, Mark Shapland

❏ ✿ C-5B: Actuary or Data Scientist or Both (Repeat) 🎤

Tapa 1 (Primary theme: Other)

See description on page 31.

Panelists: Cheng-Sheng Peter Wu, Kimberly Holmes

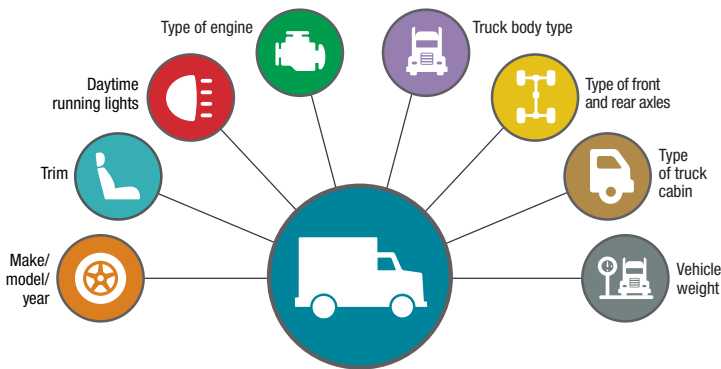## ❏ ✿ C-9: The Big Short, Part II 🎤 ▶

Tapa 2-3 (Primary theme: ERM)

It's been over a decade since the 2008 financial crisis, yet, the entire developed world hasn't ever really recovered economically. Was there more to the crisis that we still don't fully understand? If so, are we any more prepared now than we were then for the economic risks we face today? This is "The Big Short, Part II."

Panelist: Robert Anderson

ROUNDTABLE

Tuesday, November 13, 2:30 p.m.-3:30 p.m.

❑ RT-1: Actuarial Think Tank: International Travel Insurance

Kahili

In this roundtable participants will carry on a discussion on the issues raised during this prior concurrent session. See description on page 33.

> Facilitator: Kristen Dardia

❑ RT-2: The Big Short, Part II

S Pacific 3-4

In this roundtable participants will carry on a discussion on the issues raised during this prior concurrent session. See description on page 61.

> Facilitator: Robert Anderson

❑ RT-3: Data Science: The Changing Role of a Pricing Actuary

Coral 2

In this roundtable participants will carry on a discussion on the issues raised during this prior concurrent session. See description on page 55.

> Facilitator: Greg Frankowiak

❑ RT-4: Diversity

Hibiscus

Hosted by the new CAS/SOA Joint Committee on Inclusion, Equity and Diversity, this roundtable will discuss common unconscious biases in the hiring process and tactics to counteract these biases. Hiring managers as well as mid-level employees are encouraged to join the discussion. Attendees are invited to join us at a reception for the International Association of Black Actuaries and Organization of Latino Actuaries and their allies immediately following the session.

Facilitators: Paul Kinson, Kuda Chibanda

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

Nautilus

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: Kimberly Guerriero, Noah Williams

❑ **RT-7: Recession Likely: Expect a Bend in Trend Lines**

Sea Pearl 1-4

In this roundtable participants will carry on a discussion on the issues raised during this prior concurrent session. See description on page 51.

    Facilitator: Gail Tverberg

❑ **RT-8: University Engagement: Training Actuaries In the Real World**

S Pacific 1-2

In this roundtable participants will carry on a discussion on the issues raised during this prior concurrent session. See description on page 40.

    Facilitator: Erich Brandt

LIVESTREAMS

Tuesday, November 13, 2:40 p.m.– 3:30 p.m.

❑ ❀ **C-34B: New Approaches to Modeling Silent Cyberrisk (Repeat)** 🎤 ▶

Tapa 2-3 (Primary theme: Cyber)

See description on page 48.

      Panelists: Ridhima Kale, Jonathan Laux

Tuesday, November 13, 3:40 p.m.–4:30 p.m.

❑ ❀ **C-16: Driving Under The Influence -- The Insurance of Distracted Driving** 🎤 ▶

Repeated on Wednesday at 8:00 a.m.

Tapa 2-3 (Primary theme: Personal Lines)

Insurance clearly has skin in the distracted driving game: Almost 10% of the over $100 billion annual losses from distracted driving are incurred through insurance. With such a large problem (that's only becoming larger), we need to figure out how we analyze the problem.

      Panelists: David Kidd, Katie DeGraaf

Tuesday, November 13, 4:40 p.m.–5:30 p.m.

☐ ❀ ❀ C-8B: Artificial Intelligence in Auto Rating and Regulatory Considerations (Mandarin) 🎤 ⏺

Tapa 2-3 (Primary theme: Ratemaking)

In this session, we will discuss how actuaries can incorporate artificial intelligence into personal and commercial insurance practices and offer regulatory perspectives on incorporating AI in actuarial analyses.

在本次会议中，我们将讨论精算师应如何把AI用于个人和商业保险实务，并从监管角度，对于AI再精算分析中的应用提出看法。

Panelists: Jianlu Xu, Wanchin Chou, Jingtao (Ethel) Wang, Ran Guo

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CONCURRENT SESSIONS

Wednesday, November 13, 8:00 a.m. – 8:50 p.m.

❏ ✿ **C-13B: Data Science: The Changing Role of a Pricing Actuary (Repeat)** 🎤

Coral 1 (Primary theme: Ratemaking)

See description on page 55.

      Panelists: Stephane Provost, Greg Frankowiak

❏ ✿ ✿ **C-6: Application of Big Data in Insurance** 🎤

Coral 2 (Primary theme: International)

Social network is playing an increasingly important role as an early warning system, which will aid the rapid assessment of disaster and post-disaster reconstruction. In this paper, we seek to answer the following questions: What kind of information combined with data mined from social network will lead to a more accurate result in terms of damage estimation?

      Panelists: SuJin Zheng, Guangyuan Gao

❏ ✿ ✿ **C-27B: Ineffective ERM – Facing Obstacles to Achieving Full Potential: A Case Study (Repeat)** 🎤

Honolulu 1 (Primary theme: ERM)

See description on page 28.

      Panelists: Michael Speedling, Robert Wolf

❄ ❄ C-25: Impact of Declining Opioid Trends in California Workers' Compensation 🎤

Repeated on Wednesday at 9:10 a.m.

Honolulu 2/3 (Primary theme: Workers' Comp)

This presentation will discuss the declining trend in opioid utilization in the California workers' compensation system over the past 10 years and how that trend has masked increasing claim costs.

Panelists: Alex Swedlow, Mary Smith, Martin King

C-4: Actuaries in Banking 🎤

Kahili (Primary theme: Other)

The banking industry represents fertile ground for actuaries to deploy their analytical skills. This session will dive into the key factors leading to the demand for actuarial talent in the banking sector, particularly in analyzing credit risk and in using advanced modeling and analytical skills actuaries have.

Panelist: Michael Schmitz

❀ ❀ R-1: Credibility-like Shrinkage in Linear Models for Pricing and Reserving 🎤

Nautilus (Primary theme: Research)

Credibility shrinks estimates towards the overall mean, which reduces error variances. Ridge regression and lasso give similar increases in accuracy for regression-type models, but with less guidance on how much to shrink. The Bayesian versions solve that problem and make the process a one-step fitting.

Panelist: Gary Venter

❀ ❀ C-29B: Isn't it True? (Repeat) 🎤

Sea Pearl 1-4 (Primary theme: Reserving, Risk Theory)

See description on page 29.

Panelists: James Ely, Jingtao (Ethel) Wang

❀ C-38: Planes, TVs and Automobiles: A Primer on Aviation and Warranty Insurance 🎤

S Pacific 1-2 (Primary theme: Other)

We will discuss actuarial considerations with airline and products liability as well as insights on Boeing 737 Max. We will also explore warranty insurance and provide insight into the unique pricing and reserving considerations for this unusual line of business.

Panelists: Carl Ashenbrenner, Aadil Ahmad

❏ ✿ **C-48B: Text Mining Even Your Boss Will Understand: Using LDA to Get Data From Free-Form Text (Repeat)** 🎤

S Pacific 3-4 (Primary theme: Predictive Modeling)

See description on page 42.

Panelists: Bret Shroyer, Andrew Doll

❏ ✿ ✿ **C-10: Changing Physical & Digital Climates: Risk Modeling For Catastrophic & Cyber Security Loss** 🎤

Tapa 1 (Primary theme: Emerging Risks)

This session will analyze how risk management professionals account for the impact of climate change on risk management, risk modeling and other strategic planning activities. Speakers will also discuss legal and regulatory issues related to the availability of insurance covering catastrophe perils.

Panelists: Fred Karlinsky, Matthew Nielsen

❏ ✿ ✿ **C-16B: Driving Under The Influence – The Insurance of Distracted Driving (Repeat)** 🎤

Tapa 2-3 (Primary theme: Personal Lines)

See description on page 66.

Panelists: David Kidd, Katie DeGraaf

CONCURRENT SESSIONS

Wednesday, November 13, 9:10 a.m. - 10:00 a.m.

❄ C-21: Getting In Deep: Flood Risk in a Warming World 🎤

Coral 1 (Primary theme: Catastrophes)

The first speaker will explain how much flood exposure may be man-made versus caused by climate change. He will also go over the recent flood events in the U.S. The second speaker will discuss the current state of the private flood insurance market and challenges to overcome.

Panelists: Peter Dailey, Andy Neal

❄ ❄ R-4: Rebalancing the Off-Balance Factor with the Complement of Credibility 🎤

Coral 2 (Primary theme: Research)

Many actuarial formulas have an off-balance correction. In some cases it is explicit and obvious, in some it is more subtle. This session offers an easy-to-implement method that provides both a more reasonable and often a best estimate set of rates

Panelists: Joseph Boor, Jeffery Smith

❑ ✿ **C-19B: Extended Warranty Insurance for Electric Vehicles (Repeat)** 🎤

Honolulu 1 (Primary theme: International)

See description on page 53.

Panelist: Ran Kan

❑ ✿ ✿ **C-25B: Impact of Declining Opioid Trends in California Workers' Compensation (Repeat)** 🎤

Honolulu 2/3 (Primary theme: Workers' Comp)

See description on page 70.

Panelists: Alex Swedlow, Mary Smith, Martin King

❑ ✿ **C-39B: Presentations, Conversations and Articulations: Public Speaking For (Those Who are Not) Dummies (Repeat)** 🎤

Kahili (Primary theme: Business Skills)

See description on page 57.

Panelist: Amy Brener

❏ ✿ C-33B: Natural Catastrophes: Low Risk Does Not Mean NO Risk (Repeat) 🎤

Nautilus (Primary theme: Catastrophes)

See description on page 36.

Panelists: Howard Kunst, James Lynch

❏ ✿ ✿ ✿ C-46: Systemic Risk Quantification and Implication for Carrier Solvency 🎤

Sea Pearl 1-4 (Primary theme: International)

In the first paper, the author presents a SVM-SRISK method to evaluate the SRISK and SRISK% of top 18 insurance companies in China, which account for 70% of market share. In the second paper, the research attempts to consider how a linear regime switching system in discrete-time framework could be applied to calculate the medium- and long- term accumulated reserves (surplus) and the relevant premiums strategy from the point of view of a non-life insurer.

Panelists: Lin Zhang, Lin Yang

❏ ✿ C-23B: GLMs, Machine Learning, & More, Oh My! (Repeat) 🎤

S Pacific 1-2 (Primary theme: Predictive Modeling)

See description on page 37.

Panelists: Gary Wang, Michael Chen, Donald Hendriks

❑ ✿ **C-3B: Actuarial Trivia Challenge! (Repeat)** 🎤

S Pacific 3-4 (Primary theme: Professionalism)

See description on page 57.

Panelists: Andrew Dalgaard, Jeff Casaday

❑ ✿ **C-41B: Recession Likely: Expect a Bend in Trend Lines (Repeat)** 🎤

Tapa 1 (Primary theme: Emerging Risks)

See description on page 51.

Panelist: Gail Tverberg

❑ ✿ **C-49: To Boldly Go Where No Actuary Has Been (Employed) Before** 🎤

Tapa 2-3 (Primary theme: Business Skills)

Come hear from others who have made the leap to becoming a solo company actuary and learn from their experiences. We will discuss both the challenges and opportunities of working as a solo or small company actuary.

Panelists: Brant Wipperman, Deborah Upton, Amber Anseeuw

GENERAL SESSION

Wednesday, November 13, 10:30 a.m. - 11:45 a.m.

❀ ❀ G-4: Hawaiian Insurer Panel 🎤

Tapa Ballroom

Hawaii faces a variety of unique challenges from an insurance company's perspective. For example, catastrophic risks such as hurricane and volcanic eruption affect the entire state. This session will discuss some of the challenges faced by a workers' compensation carrier as well as two insurance companies writing diversified books of personal and commercial lines. Likely topics of discussion include: (1), comparisons to other state regulatory environments; (2), insights on lava exposure in Hawaii; (3), unusual dynamics and partnerships resulting from several property insurers writing hurricane-only policies; (4), the impact of recent Hawaii hurricane model updates from some of the key catastrophe modelers; (5), current issues impacting workers compensation; and (6), other unique issues faced by Hawaiian insurers.

    Panelists: Jeffrey Grimmer, Michael Onofrietti, Martin Welch

    Moderator: Guy Avagliano