June 30, 2020

Dear members, welcome to the May-June 2020 edition of ASTIN Newsletter. It provides a general update regarding the ASTIN activities over the last two months as well as its future planned activities.

2020 IAA Sections Virtual Colloquium

The 2020 IAA Sections Virtual Colloquium was held on 11–15 May 2020. It brought the actuarial world together for five days offering 80 pre-recorded high-quality presentations (30 under the ASTIN track), as well as interactive live online plenary sessions from IAA Sections with contributions from keynote speakers.

Interactive live online session

Each IAA Section had 90 minutes allocated for its own live broadcast. ASTIN Plenary Session was broadcast on actuview on 12 May 2020 and comprised the following two presentations:

• Detection of Data Anomalies by Alexandre Boumezoued (Milliman, France)

• On Customer Behaviour in Insurance by Prof. Stéphane Loisel (University of Lyon, France)

2020 ASTIN Best Paper Award

This year’s ASTIN Best Paper Award was given to Peng Shi, Nii-Armah Okine and Edward Frees for their joint paper titled “Joint Model Prediction and Application to Individual-level Loss Reserving”.

The paper introduces a practical and effective method for jointly modelling payment and settlement processes of individual claims allowing for covariates. Congratulations to authors for winning this award.
Video recordings

The video recordings of Colloquium sessions are available to all ASTIN members, registered actuview users, for further viewing on the actuview website at www.iaasections2020.actuview.com.

If you are not registered yet, become an ASTIN Section member and receive your registration code through your member profile on the IAA website at www.actuaries.org/sections.

ASTIN Annual Report 2019/2020

The 2019/2020 Annual Report of ASTIN was released on 7 May 2020.

It is available online on the ASTIN website.

We continue to use annual reports as an efficient communication media for sharing the information with ASTIN members and keeping them up to date with the latest developments including news and current affairs.

We hope that this Annual Report provides some useful insights into how we generate value for members, and a snapshot of our exciting plans for the future.

2020 ASTIN Annual Board Meeting

ASTIN Annual Board Meeting was held virtually as a 7½ hour zoom marathon during the period of three days from 8 to 10 May 2020. The meeting was attended by invited guests: Tonya Manning (IAA President) and Mathieu Langelier (Executive Director, IAA), as well as representatives from local actuarial associations - IAJ (Japan), Actuaries Institute (Australia), CAS (USA) and IAB (Belgium).

The main focus of this year’s Board meeting was on what was achieved last year, what worked well and what could have been done better, as well as future strategies and initiatives aimed at better serving our members and creating value for them.

The detailed meeting minutes as well as recording will be made available online on the ASTIN website later in July.

One specific thing of note is the new governance reform of ASTIN. The new reform provides a better more efficient structure of ASTIN leadership, clearly defining roles and responsibilities of volunteers and elected Board members. The plan is to finalise and put in place the new governance by the end of Q3 2020. We will be providing further updates on how this progresses.
ASTIN Webinars

ASTIN regularly organises its topical webinars with the assistance of the IAA Secretariat. They are used to share knowledge and expertise among ASTIN members and the wider non-actuarial community.

A recording of each webinar, along with a PDF copy of the presentation, can be found on the ASTIN website and are freely accessible to ASTIN members. Not a member? You can participate by simply joining ASTIN Section (membership fee is CAD 50.00).

Our recent webinars

We have recently organised the following webinars:

- 27 May 2020 – Bayesian Claims Reserving Methods in Non-Life Insurance (Session I) by Glenn Meyers (USA)
- 10 June 2020 – Bayesian Claims Reserving Methods in Non-Life Insurance (Session II) by Glenn Meyers (USA)
- 24 June 2020 – Frequency Modelling of Cyber Risk by Alexandre Boumezoued (France)

What’s in it for you and how you can benefit

Bayesian Claims Reserving Methods in Non-Life Insurance

Until recently, Bayesian analysis was restricted to simplistic models that were not appropriate for most actuarial problems. When it comes to managing reserve risk, experienced actuaries have been recently putting more emphasis on overall reserve risk profile, closely inspecting adverse outcomes, tail drivers and model risk, whilst dealing with emerging trends of reserving cycle and systemically decreasing reserve redundancies. Bayesian Markov Chain Monte Carlo (MCMC) provides a fresh perspective of how to efficiently deal with all these issues, offers new modelling techniques / features and insight. Actuarial students and young researchers would benefit from this webinar too, as MCMC enables a transition from traditional ‘frequentist statistics’ towards informationally enhanced and data science driven statistical modelling.

This webinar is based on the presenter’s monograph (second edition) on MCMC applications in loss reserving published by the Casualty Actuarial Society (USA) in 2019. The webinar walks through the theory underlying Bayesian MCMC models and then demonstrates how to implement them using the computer language R with the rStan package. It includes a live demonstration of a Bayesian MCMC model for a basic stochastic non-life loss reserve model.

Frequency Modelling of Cyber Risk

Cyber risk is an emerging, expanding and fast-changing risk. It has evolved rapidly with technological advances and growing digitisation. Whilst cyber risk is yet to be fully studied and understood, it is already evident that the insurance industry is getting ready to deal with the complex systemic risk of cyberattack, given its highly pervasive nature, compounded by today’s complex technological interconnectivity.
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This webinar focuses on specific important features of cyber-attacks, those related to the memory of events and self-exciting behaviour, underlying the clustering and auto-correlation properties of inter-arrival times. In this webinar, you will be introduced to a multivariate Hawkes model, its step-by-step specification and calibration. You will learn how to apply the new model to predict cyber-attacks frequency when using a public US dataset as an example.

**ASTIN Annual General Meeting 2020**

The 2020 Annual General Meeting (“AGM”) of the ASTIN Section took place on a virtual platform on May 14, 2020 at 9:00AM (EDT).

The meeting covered the following items:

- Presentation of ASTIN Annual Report 2019/2020 including messages from Chairman, Secretary, Treasurer and Chief Editor of ASTIN Bulletin;
- ASTIN Board Election 2020 - announcement of the results of electronic voting;
- 2020 Hachemeister Prize announcement; and
- Future colloquia.

The detailed meeting minutes as well as recording will be made available online on the ASTIN website later in July.

**ASTIN Board Election 2020**

There were two ASTIN Board vacancies to be filled. Four candidates put their names forward to fill the vacant positions on the ASTIN Board.

ASTIN used an entirely virtual voting platform this year. There was no voting during the AGM on the ballot items. The results of the electronic voting were announced at the AGM.

The electronic ballot included:

- Voting for candidates for the two open positions on the ASTIN Board;
- Voting to approve several changes in the ASTIN Section Rules; and
- Voting to approve the minutes of the last year’s Annual General Meeting of ASTIN, which was held on 3 April 2019.

The results of electronic voting are as follows:

- The two individuals that received the greatest number of votes were elected to four-year terms on the ASTIN Board. They are:
  - **Miyuki Ebisaki** (Japan)
  - **Axel Wolfstein** (Germany)
• Changes to the ASTIN Section Rules have been approved by ASTIN members;
• Minutes of the last year’s AGM have been approved by ASTIN members.

Miyuki Ebisaki will be replacing outgoing Board member, representative of Japan, Kenji Shirai. We welcome new members onto the Board and wish them every success in their new role. We say goodbye to outgoing member, Kenji Shirai, and thank him for his hard work.

2020 Hachemeister Prize Announcement

Each year the Hachemeister Prize is awarded to the best paper presented at the ASTIN colloquium or published in the ASTIN Bulletin.

The prize was established in 1993 in recognition of Charles A. Hachemeister’s many contributions to Actuarial Studies in Non-Life Insurance (ASTIN) and his efforts to establish a closer relationship between the Casualty Actuarial Society (CAS) and ASTIN.

This year’s Hachemeister Prize was awarded to Ronald Richman for his paper titled “AI in Actuarial Science.”

Paper synopsis: After providing some background on machine learning and deep learning, and providing a heuristic for where actuaries might benefit from applying these techniques, the paper surveys emerging applications of AI in actuarial science, with examples from mortality modelling, claims reserving, non-life pricing and telematics. For some of the examples, code has been provided on GitHub. The paper concludes with an outlook on the potential for actuaries to integrate deep learning into their activities.

We congratulate Ronald for winning this prestigious prize of the global non-life actuarial community.
Forthcoming Events

IAA Meetings

• Virtual Council and Committee Meetings (4Q 2020)
• Brussels, Belgium 8-13 May 2021
• Seoul, South Korea 11-15 Oct 2021 (tentative)
• Sydney, Australia 30 Mar - 3 Apr 2022

ASTIN Colloquia

2021 - May 25-28, Orlando, FL, USA
The ASTIN Colloquium will be held jointly with the AFIR-ERM Section at Disney's Coronado Springs, in collaboration with the CAS.

2022 - April 4-8, Sydney, Australia
ASTIN Colloquium will be held as part of 32nd ICA.

2026 - Tokyo, Japan
ASTIN Colloquium will be held as part of 33rd ICA.

Resources

Don’t forget the following resources which have a lot of information about ASTIN, and its research:

ASTIN Annual Report | ASTIN Bulletin | ASTIN Video | ASTIN Newsletters | ASTIN website

Also, please follow us on social media: LinkedIn, Twitter and Facebook.

Contacts

Key contacts on the ASTIN Board

• Frank Cuypers [Chairman]
• Yuriy Kravych [Secretary]