From: Statistical Society of Australia
To: Marie-Louise Rankin
Subject: Stats Matters & Events

**Date:** Thursday, 16 February 2023 3:46:53 PM



Dear Marie-Louise,

With the increasing awareness of environmental issues, there is a growing need for statisticians to develop new methods and models to evaluate environmental data. This includes modeling and analysing data related to climate change, air and water quality, and ecological systems.

Calling about 1000 members its own, SSA is lucky to be connected with many renowned statisticians who do exactly that. The latest edition of "Significance" features an article about the changes of our planet as a result of greenhouse gases, quantified by a team of statisticians at the University of Wollongong. Three of the scientists mentioned in the article are members of SSA! These researchers use WOMBAT, the WOllongong Methodology for Bayesian Assimilation of Trace-gases), a fully Bayesian hierarchical statistical framework for flux inversion of trace gases from flask, in situ, and remotely sensed data.

I will stop right here, because not being a statistician I would be bound to include embarrassing errors when trying to summarise the article, but you can read more about WOMBAT and your colleagues' findings <u>here</u>.

Still on the subject of the February issue of "Significance", you may be

interested in the interview conducted with SSA President, Ian Gordon. It reiterates how everyone here at SSA has their own interesting story. Read the interview <u>here</u> but....

Before you click away to read the February issue of Significance, please scroll all the way down to the end of this newsletter, to make sure you don't miss the list with our upcoming events, such as a very special <u>SSA Welcome Event</u> on 1 March!

Marie-Louise Rankin SSA Executive Officer

Read newsletter in your browser

#### In this newsletter:

<u>"I'm a curious person and it's very difficult to bore me" - Interview with SSA President Ian Gordon</u>

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Write here, write now! 2023 writing competition is open for entries

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"I'm a curious person and it's very difficult to bore me" - Interview with SSA President Ian Gordon

SSA's President Ian Gordon, Director of the Statistical Consulting Centre at the University of Melbourne, was recently interviewed by Hayley Bennett for "Significance" (Volume 20, Issue 1, February 2023).

In the interview, lan provides insight into the variety of projects and clients he has worked with. Interestingly, he has dealt not just with major companies but

also with small businesses in a variety of industries including education, agriculture and engineering. As lan explained, expert witness work for legal cases also makes up some of the work, with a focus on meta-analysis and randomised trials.

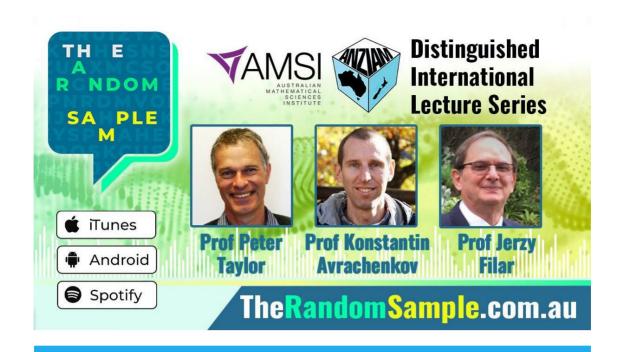
What is Ian most proud of? Read the full interview <u>here</u> and find out. You'll be surprised.

# Latest "The Random Sample" podcast episode out now

Looking for a fascinating new podcast to add to your playlist? Look no further than The Random Sample, a show that explores the exciting world of applied mathematics. In this episode, hosted by Melbourne University's ACEMS Director Professor Peter Taylor, we're joined by Professor Konstantin Avrachenkov, Director of Research at France's National Institute for Research in Digital Science and Technology, as well as his PhD supervisor from 20 years ago, Emeritus Professor Jerzy Filar.

Together, these two distinguished academics offer a unique and insightful perspective on the field of mathematics from an international point of view. As part of the AMSI-ANZIAM Distinguished Lecture series, Professor Avrachenkov has been invited to speak at universities across Australia, and The Random Sample team was lucky enough to catch up with him during his visit.

Whether you're a math enthusiast, a student of the field, or simply someone who loves learning about the world around us, this podcast is a must-listen. So why wait? Subscribe and listen <a href="here">here</a> to The Random Sample today, available for free on iTunes, Spotify, and Android devices.



# Meet the 12 Innovators Selected for Datanami's 2023 People to Watch Program

Every year the editorial team at <u>Datanami</u> searches for individuals who make significant contributions to big data, advanced analytics, and Al in order to acknowledge their work and recognise them for their efforts.

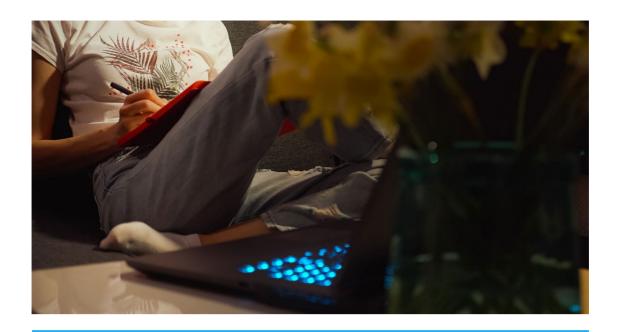
In the 2023 People to Watch program, the team has chosen 12 exceptional individuals to showcase the remarkable ways in which their work has influenced the industry.

Find out <u>here</u> who they are, and why they were chosen.

## Write here, write now! Our 2023 writing competition is open for entries

The 2023 Statistical Excellence Award for Early Career Writing, jointly organised by *Significance* and the Young Statisticians Section of the Royal Statistical Society (RSS), is open for entries. The competition is for early-career statisticians or data scientists who believe they can write entertaining and thought-provoking data-driven stories. Articles can be about any topic, and technical terms. The winning article will be published in *Significance*, and winners and runners-up will be announced at the RSS Statistical Excellence Awards and invited to present their articles at the 2023 RSS Conference.

See the rules of entry here.



# Unlocking Statistical Literacy: Addressing the Deficit and Communicating with Clarity

When discussing statistical literacy, it is often brought up as a deficiency of the general public. It may be cited as a factor in the public's limited comprehension of economic statistics. How should this deficit be addressed?

To gain a better understanding of this topic, the UK Office for Statistics Regulation commissioned a review of published research with the assistance of Jessica McMaster through a Cambridge Grand Challenges Internship from March to September 2022. By examining the Office's regulatory work and consulting with other experts, McMaster sought to address the question of whether statistical literacy is a concern and to clarify its definition.

One of the outcomes of the review was a recommendation that producers of statistics focus on publishing and communicating statistics in a way that can be understood by audiences with varying skill levels. Best practices in communicating statistics to non-specialist audiences include considering the target audience, providing contextual information, establishing trust, using simple language, considering the format and framing of statistical information, and communicating uncertainty.

Read a summary of the review <u>here</u>.



# Mentioned in previous newsletters

#### **Election of Executive Members**

Members are advised that the Executive position of Vice President will become vacant at the Society's Central Council Annual General Meeting in 2023. The SSA Rules provide for a Nominating Committee, consisting of the current Executive and the Branch Presidents, to solicit nominations and submit a list of nominees to Central Council. Should an election be required, Central Council will then arrange a ballot of all financial members of the Society.

Details about the role of SSA Vice President can be viewed here.

Members of SSA are invited to submit nominations for the position of Vice President. Nominations must be in writing and signed by the nominator(s), and must be accompanied by a written and signed statement from the nominee accepting the nomination. Nominations should be submitted to the SSA President or to a Branch President before 31st March, 2023.

Doug Shaw, Secretary

## **Society Awards**

The Society awards a gold medal, the Pitman Medal, at most once annually, in recognition of outstanding achievement in, and contribution to, the discipline of

Statistics. Honorary Life Membership honours outstanding contribution to the profession and the Society, while a Society Service Award may be awarded to a Society member in recognition of sustained and significant service to the Society.

An Awards Committee, chaired by the President of the Society, makes recommendations to the Society's Central Council as to appropriate Award recipients. Pitman Medals and Honorary Life Memberships are usually announced at the Society's Conference.

Members of the Society are encouraged to propose suitable recipients of the Pitman Medal, Honorary Life Membership or a Society Service Award. Suggestions, with brief supporting information, should be emailed to the undersigned.

Doug Shaw, Secretary

#### ASC 2023: Call for Abstract Reviewers

The ASC 2023 Scientific Programming Committee (SPC) is currently seeking expressions of interest from SSA members interested in undertaking the peer review of abstracts for the conference. All areas of statistical expertise are welcome. The Australian Statistical Conference, partnered with the Australian Conference on Teaching Statistics (OZCOTS), will take place in Wollongong from 10<sup>th</sup>-15<sup>th</sup> December 2023.

Each reviewer will be responsible for blind reviewing up to 20 abstracts of up to 300 words aligned with their area of expertise and each abstract will have 2 reviewers. Review criteria and information on how to review the abstracts will be provided once the call for reviewers closes. **Reviewers must be available to review abstracts between April and May 2023**.

Selection of reviewers will be based on SSA membership and area of expertise, with the number of reviewers based on the number of abstract submissions. If you are able to review abstracts, please complete the <u>online</u> registration form. Abstract reviewer registrations will close on <u>31<sup>st</sup> March 2023</u>

Call for nomination: Horizon Lectures, <u>Australian Statistical Conference</u>, 10-15<sup>th</sup> December 2023 (ASC 2023)

The Statistical Society of Australia (SSA) and ASC 2023 Scientific Programme

Committee are delighted to open nominations for the inaugural Horizon Lectures, to be given at ASC2023 in Wollongong, 10<sup>th</sup>- 15<sup>th</sup> December 2023.

The Horizon Lectures aim to recognise emerging leaders in Australia's statistics community and their contributions to advancing statistical practice across academia, government, and/or industry. Lectures will be awarded to mid-career statisticians working in any discipline who have made an impact within their field(s) of expertise and have demonstrated leadership in building capacity in statistical expertise within Australia.

Up to three (3) Horizon Lectures will be awarded for presentation at ASC2023. All Lectures will be presented together as a plenary session to all conference delegates. Lectures can be on any area of statistics in line with the awardee's expertise. Each awardee will receive up to \$2,500 to cover conference and travel costs.

Nominations involve a written statement (up to 1,000 words) summarising how the nominee meets the award selection criteria. Nominees must be a member of the SSA and be employed as a statistician in Australia. Nominations must be supported by another member of the SSA.

Full details on eligibility, award selection criteria and submission are available in the nomination form, available on the <u>conference website</u>. Nominations must be submitted by **5 pm AEST**, **28<sup>th</sup> February 2023**. Late nominations will not be accepted.

Questions about the Horizon lectures can be sent to ASC 2023 Scientific Programming Committee at <a href="mailto:asc.ozcots2023@gmail.com">asc.ozcots2023@gmail.com</a>

#### **SSA Events**

SSA Vic Branch: Causal inference in Econometrics and Health Sciences

21 Feb 2023, 10:30 AM – 12:45 PM (AEDT)

Ian Wark Theatre, CSIRO Clayton, Research Way, Clayton VIC 3168, OR online via Zoom

Join us for a lunchtime lecture and hear from Associate Professor Margarita Moreno-Betancur and Dr Akanksha Negi on the topic of causal inference. Each speaker will present for 20 minutes, followed by a 20 minute Q&A session at the end. For those attending in person, a light lunch will be provided after the Q&A.

For more details and to register click here.

# SSA Canberra Branch meeting: The trials and triumphs of survey estimation

You're invited to the Canberra Branch's first branch meeting of 2023! Join us for an engaging presentation by Dr Lauren Kennedy from Monash Uni (soon to be Uni of Adelaide) on the trials and triumphs of survey estimation. The event will be available both in-person and online, so you can participate no matter where you are.

Don't miss out on this exciting opportunity to learn from a leading expert in the field!

Date: Tuesday 28 Feb 2023

Time: 5:45pm – no later than 7:15pm AEDT

**Venue**: Allan Barton Forum, ANU College of Business & Economics, Building 26C, The Australian National University (<u>Building 26C ANU</u>), or via Zoom.

The Zoom link for the event is available <u>here</u>. It will be open from 5.30pm. RSVP is *not* required.

Looking for the abstract? Click <u>here</u>.

# 2023 Statistical Society of Australia (SSA) Welcome Event

1 March 2023, 5pm AEDT, online and in - person (in Vic and NSW)

Please join us at one of our first networking events for 2023. Anyone with an interest in statistics is welcome to attend to learn more about the SSA and its members.

We have an incredible group of presenters lined up to share their diverse perspective and experience of life as a statistician and their involvement with the SSA:

Ian Gordon

Professor Ian Gordon is the President of the SSA, the Director of the Statistical Consulting Centre at The University of Melbourne and has more than 30 years of experience in applied statistics. In his spare time, Ian likes to do cryptic crosswords, rogaine, play cricket, and pat the dog.

#### Elizabeth Korevaar

Elizabeth Korevaar is a postdoc at Monash University researching statistical methods for meta-analysis of interrupted time series, and cluster randomised trial design and analysis. Lizzie is a member of the SSA Vic council and co-chair of the SSA Mentoring Program. Lizzie's favourite things about her work are the variety of subject areas and problems that statistical methods are used for, and discussions with the amazing Biostatistics community

#### Joanne Potts

Dr Joanne Potts is the Director of The Analytical Edge Statistical Consulting. Joanne has a wealth of experience working in statistics, across academic, government and the private sector. One thing Jo has learnt from many years working as a statistical consultant is you never stop learning! She thinks it is one of the best aspects of her job: the diversity of statistical methods and the areas of science in which they apply.

# Zhi Yang Tho

Zhi Yang Tho is a PhD candidate at The Australian National University researching statistical methods for multivariate data. Zhi Yang also enjoys teaching undergraduate and postgraduate statistics, and is committed to inspiring students to enjoy statistics through the use of interesting, real-world problems

This event will be chaired by

#### Rheanna Mainzer

Dr Rheanna Mainzer is a biostatistician at the Murdoch Children's Research Institute and the Vice President of Membership for the SSA. Her current research examines methods for handling missing data in large-scale longitudinal studies.

Find out more and register here.

Small Area Estimation Workshop: Combining Census and survey data to create reliable local-area estimates by Andrew Ward.

8 Mar 2023, 1:00 PM - 5:00 PM (AEDT), online

The Statistical Society of Australia (SSA) and the Social Research Centre (SRC) proudly offer the workshop. This workshop will give an overview of considerations, methods, tools and outputs for small area estimation. Topics covered will include the following:

- Design considerations, including questionnaire items and sources of auxiliary data;
- Preparation of survey and auxiliary data for modelling;
- Model building and production of estimates; and
- Options for presentation and visualisation of results.

For more information on this workshop click here.

# Expression of Interest in Survey and Data Science Courses in 2023-24

1 Jun 2023 (AEST) - 31 Oct 2024 (AEDT), online-weekly one hour classesthis is 6 courses offered over the next year

Due to the high demand for the Sampling Course in 2022 and strong interest in other courses from the <u>International Program in Survey and Data Science</u> (IPSDS) Masters program the Social Research Centre and Statistical Society of Australia have partnered again to expand IPSDS course offerings in Australia

If you are interested in the Item Nonresponse, Sampling, Big Data/Machine Learning for Surveys and/or Weighting courses please register your interest so that we can determine whether there is sufficient demand.

To show your interest click **here**.

Save the date: ASC and OZCOTS 2023

10-15 December 2023, University of Wollongong, NSW

Find out more

Other events



| SUBJECT                               | UNIVERSITY                          | LECTURER               |
|---------------------------------------|-------------------------------------|------------------------|
| ALGEBRA                               | The University of Newcastle         | PROF. FLORIAN BREUER   |
| MACHINE LEARNING & DATA VISUALISATION | Edith Cowan University              | DR JOHNNY LO           |
| NUMBER THEORY                         | The University of New England       | DR ADAM HARRIS         |
| OPTIMISATION III                      | The University of Adelaide          | A/PROF. LEWIS MITCHELL |
| OPTIMISATION MODELLING                | Queensland University of Technology | DR JOCK MCORIST        |
| STATISTICAL INFERENCE                 | RMIT                                | PROF. IRENE HUDSON     |
|                                       |                                     |                        |

#### 2023 SUBJECT DETAILS

RHED.AMSI.ORG.AU/THIRD-YEAR-SUBJECT-COLLABORATION/#SUBJECTS



Enrolments are open for **AMSI's online third-year undergraduate**, **honours and masters subjects**. Please forward on the below email to your networks.

AMSI **third-year undergraduate** subject collaboration open for cross-institutional enrolment - <a href="mailto:rhed.amsi.org.au/third-year-subject-collaboration">rhed.amsi.org.au/third-year-subject-collaboration</a>

- Algebra (UNE)
- Machine Learning and Data Visualisation (ECU)
- Number theory (UNE)
- Optimisation III (UoA)
- Optimisation Modelling (QUT)
- Statistical Inference (RMIT)

AMSI ACE Network **Honours and Masters** subjects - rhed.amsi.org.au/ace/#sem1

- Algebraic Number Theory (UoN)
- Arbitrage Pricing in Continuous Time (USYD)
- Computational Mathematics (USYD)
- Differential Geometry (Macquarie)
- Martingales (Monash)
- Mathematical modelling in ecology (QUT)
- Permutation groups (UWA)
- Probability and Martingale Theory (USYD)
- Statistical Learning (UNE)



# ACCESS MORE HONOURS & MASTERS SUBJECTS ONLINE SEMESTER ONE 2023

| NAME OF SUBJECT                      | LECTURER            | HOST UNIVERSITY                     |
|--------------------------------------|---------------------|-------------------------------------|
| ALGEBRAIC NUMBER THEORY              | FLORIAN BREUER      | THE UNIVERSITY OF NEWCASTLE         |
| ARBITRAGE PRICING IN CONTINUOUS TIME | ZHOU ZHOU           | THE UNIVERSITY OF SYDNEY            |
| COMPUTATIONAL MATHEMATICS            | GEORG GOTTWALD      | THE UNIVERSITY OF SYDNEY            |
| DIFFERENTIAL GEOMETRY                | PAUL BRYAN          | MACQUARIE UNIVERSITY                |
| MARTINGALES                          | ANDREA COLLEVECCHIO | MONASH UNIVERSITY                   |
| MATHEMATICAL MODELLING IN ECOLOGY    | MICHAEL BODE        | QUEENSLAND UNIVERSITY OF TECHNOLOGY |
| PERMUTATION GROUPS                   | MICHAEL GIUDICI     | THE UNIVERSITY OF WESTERN AUSTRALIA |
| PROBABILITY AND MARTINGALE THEORY    | BENIAMIN GOLDYS     | THE UNIVERSITY OF SYDNEY            |
| STATISTICAL LEARNING                 | ROBERT COPE         | UNIVERSITY OF NEW ENGLAND           |

FULL SUBJECT DETAILS RHED.AMSI.ORG.AU/ACE/



Western Sydney University presents:

Use linear, logistic, Poisson and its variants regressions in the context of longitudinal studies in health and medical research

presented by Dr Haider Mannan, Senior Lecturer in Biostatistics, Western Sydney University

21 Mar 2023 - 23 Mar 2023, held online

In this course, you will learn about the commonly used regression models in longitudinal data analysis. The focus will be on multilevel mixed effects and Generalized Estimating Equations models but there will also be examples for fixed and random effects models, hybrid and Mundlak models, the mixed-effects location-scale, conditional logistic, and segmented linear regression models.

For more information and to register click <u>here</u>.

Job vacancies in **SSA's Career Centre** 

Start your research here or see below

Consulting Statistician (early - mid career)

Victoria

# **Symbolix**

We are looking for an early career Consulting ...

#### Postdoctoral Fellow

Australian Capital Territory

**Australian National University** 

Classification: ANU Academic Level A Salary package: ...

## **Lecturer / Senior Lecturer in Biostatistics**

South Australia

School of Public Health, The University of Adelaide

Applications must be submitted through The University ...

# Senior Psychometric Analyst

**New South Wales** 

Department of Education

Ongoing Full-Time Location: Parramatta (Hybrid ...

#### Biostatistician

**New South Wales** 

University of Sydney

Full time fixed term (part time considered) until ...

## **Data Analyst**

Queensland

Queensland Aboriginal and Torres Strait Islander Child Protection Peak

This role focuses on the analysis of data sets ...

View All Jobs

If you have news from the Australian statistical community to share in Stats Matters and Events, please get in touch <u>with us!</u> We love getting feedback too.