From:Statistical Society of AustraliaTo:Marie-Louise RankinSubject:Stats Matters & EventsDate:Thursday, 8 June 2023 3:22:15 PM



In today's newsletter you have a choice of not only one but two Equity, Diversity and Inclusion (EDI) Committees that you can join! Not only are we seeking volunteers to join our own <u>EDI Committee</u>, but Science and <u>Technology Australia (STA)</u> are doing the same! Any member of an STA-member organisation can apply, and that includes members of SSA.

We are still accepting applications for the <u>ATSIMA Conference travel</u> <u>sponsorship</u>, so please keep them coming. We look forward to sending one of our members to this fabulous event, and even more so to reading about their experience in one of our newsletter down the track.

On another note: I hope that every member is aware that they are entitled to online access to the <u>Australian and New Zealand Journal of Statistics (ANZJS)</u> and <u>Significance</u>. Click on the links to find out how to access your online publications.

Significance changed publishers recently, and unfortunately this has affected the online access of some readers. While I have heard from a handful of members reporting access issues, I can't tell if every member is affected, or only some. If you recently tried to read Significance online, and did not manage to do so because of technical difficulties, would you please <a href="mailto:emai

Finally, for a few weeks now my Outlook program has been playing up. It became quite bad just before I went on leave, and it has not improved since then. I am now shopping around for a new managed service provider. At this stage I have two options on my list, but if you know of a great company, with excellent 24/7 support, please get in touch to let me know. It would be great to go with a company that comes with a recommendation. Thank you!

Kind regards,

Marie-Louise Rankin

Executive Officer

Read newsletter in your browser

Notice:

The SSA Office will be closed on Monday, 12 June 2023, for the ACT Sovereign's Birthday - Public Holiday.

In this newsletter:

Statistics Meet Astronomy at the University of Alabama in Huntsville

Exploring the Integration of Large Language Models in Data Science: Insights from the Royal Statistical Society's DS&Al Section

Abstract submission outcome for ASC & OZCOTS 2023 is now available

SSA Equity, Diversity and Inclusion Committee: We want you!

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Current Job Vacancies

Statistics Meet Astronomy at the University of Alabama in Huntsville

In an article published on 5 June 2023 on the website of the University of Alabama in Huntsville (UAH), author Russ Nelson discusses the importance of statistical methods in astronomy and the development of new techniques to account for systematic errors in data analysis. He writes that according to Dr

Max Bonamente, Professor of Physics and Astronomy at UAH, many astronomers lack a strong background in statistics. Dr Bonamente believes that there is a need for proper statistical training to draw reliable conclusions from observations.

The article mentions a recent workshop called iid2022, organised by Dr Bonamente and his colleague, Dr Lingling Zhao, Assistant Professor in the Department of Space Science, aimed at training young scientists in statistical methods for analysing event data. The workshop attracted renowned researchers from the astro-statistics community and provided a platform for exchanging advances in data analysis.

The term "event data" refers to individual events such as light photons, neutrinos, or other particles in astronomy. These events can be analysed statistically based on their location, time, or energy. The article also mentions the use of Markov chain Monte Carlo (MCMC) methods by Dr Bonamente to analyse cosmological events, which have improved the speed and accuracy of data analysis in astronomy.

Astro-statistics is seen as crucial for managing and analysing the vast amounts of complex data produced by the latest technologies in astronomy. The increasing complexity of data requires new statistical algorithms and techniques to make sense of it all. Dr Bonamente emphasises the importance of probability theory and statistics in the field and the need for scientists to be careful and avoid the temptation to find significant results where they may not exist.

Nelson's article highlights the significance of statistical methods in astronomy and the need for astronomers to acquire the necessary statistical skills to ensure accurate data analysis and interpretation.

Read the full article here

Exploring the Integration of Large Language Models in Data Science: Insights from the Royal Statistical Society's Data Science and Al Section

Brian Tarran from *Real World Data Science* spoke with members of the Royal Statistical Society's Data Science and Al Section to explore the integration of large language models into the data science toolkit. They discussed the various applications, proofs of concepts, and potential uses of these Alpowered chatbots. The conversation delved into the curiosity of data scientists about the broader capabilities and usefulness of such tools in their day-to-day work.

See what the experts had to say

Abstract submission outcome for ASC & OZCOTS 2023 is now available

We are excited to inform you that the abstract submission outcome for <u>ASC & OZCOTS 2023</u> is now available! We have sent out emails to all the submitters regarding the status of their abstracts. However, if you haven't received an email notification, we kindly request you to check your spam folder as sometimes our messages may get filtered there.

Additionally, you can also view the outcome of your abstract submission by visiting our abstract management website: https://oxfordabstracts.com/.

Simply log in to your account and you will find the results.

If you have any further questions or concerns, please don't hesitate to reach out to us by emailing asc.ozcots2023@gmail.com.

Thank you for your participation and we look forward to seeing you in University of Wollongong!

With best wishes,

ASC & OZCOTS 2023 Programming Committee

SSA Equity, Diversity and Inclusion Committee: We want you!

The SSA's Equity, Diversity and Inclusion (EDI) Committee is charged with ensuring that our Society is welcoming and accessible to all. Since its formation in 2021, we've done many things to ensure diversity of our Society, including developing guidelines to help ensure Branch and Section events are welcoming and inclusive, seeking feedback on EDI issues from our members, and providing feedback to the Australian Bureau of Statistics on the inclusion of questions on sex and gender in future censuses. You can find out more about the committee here.

If you're enthusiastic about equity, driven by diversity, or interested in inclusion, then we'd like to invite you to join the EDI Committee. For more information, please get in touch with the EDI Committee chair, <u>Jess Kasza</u>.

Latest AMSI MathsTalk podcast

The Australian Mathematical **Sciences Institute** (**AMSI**) is pleased to announce the latest AMSI MathsTalk podcast, focusing on Maths and Aboriginal and Torres Strait Islander Culture. In this podcast, AMSI Schools Officer Leanne McMahon hosts Professor Chris Matthews, Chair of the Aboriginal and Torres Strait Islander Mathematics Alliance (ATSIMA).

In this must-listen episode, Leanne McMahon talks to Chris about the

Aboriginal and Torres Strait Islander cultural cross-curriculum priority inclusion in the new Maths Curriculum in Australian schools. Chris shares his mathematical and cultural history and challenges teachers to examine how the concept of Terra Nullius has affected the role of both indigenous and non-indigenous Australians today. He discusses the importance of culture to all students and looks at some relevant contexts and ways in which teachers can include the cultural priority in their planning.

Listen to the podcast here

News from the Statistical Education Section

Statistics Education – 2023 and 2024 initiatives and opportunities to be involved

2023 – Connecting students with ... Statistics, Systems thinking, Sustainability & STEM (SSSS)

Please inform friends, family, colleagues and schools of this unique and valuable opportunity.

Supported by a <u>Commonwealth Department of Education's Emerging Priorities</u>

<u>Program Grant</u>, in 2023 <u>Emeritus Professor Tim Roberts</u> and <u>Professor Peter</u>

<u>Howley</u> are delivering:

free onlineindustry-connected professional development and activities <u>for</u> primary and secondary school <u>educators</u> and <u>students</u> nationally, which,

- develops Statistics, Systems Thinking, Sustainability, STEM and associated cross-functional <u>skills and mindsets core to teaching and</u> emerging workforce needs
- addresses and supports Australian Professional Standards for Teachers (Standards 1-4, 6,7), national curriculum learning areas and outcomes for all subject areas, general capabilities, and cross-curriculum priorities
- mitigates teaching load and enhances the teaching experience, curriculum delivery and student learning in preparation for the future of work
- may contribute <u>up to 15 hours of PD</u>
- has been shown to positively impact the attitudes, aspirations & abilities of educators & the future workforce!

Information and registration at www.ssss.org.au.

Opportunities to participate commence June, with repeated deliveries thereafter.

Enquiries: info@ssss.org.au.

2023 - National Schools Poster Competition (NSPC)

The NSPC is in its 10th year!

It provides an opportunity for students from Years 3 to 12 to work in teams of 2 to 5 and develop, implement and creatively report upon, in poster format, an investigation on any topic of interest to them.

Students conduct small-scale versions of real-world investigations in teams, developing core statistical, STEM and cross-functional skills.

They create an informative e-poster presentation communicating their investigation clearly, concisely and creatively.

The competition is judged in five divisions: one for each of the Year 3-4, 5-6, 7-8, 9-10, 11-12 School Grades. Entries close 10 November.

Information and many additional resources are provided at the www.ssapostercomp.info website.

Please inform friends, family, colleagues and schools of this unique and valuable opportunity.



2023 – Topic Study Group Paper and Poster submissions close 18 August, 2023 for ICME2024 (Sydney, Australia)

2024 – 15th International Congress on Mathematical Education (ICME), Sydney, Australia (7 – 14 July)

"Topic Study Groups (TSGs) are a unique opportunity to collaboratively explore classic and contemporary topics relevant to mathematics education through the submission of papers, session-based discussions, and report synthesis."

A list of the 54 TSGs is available.

Examples of those that may interest SSA members, includes:

TSG 1.7: <u>Teaching and learning of statistics</u>

Co-Chairs: Peter Howley, Mauren Porciuncula

TSG 1.6: Teaching and learning of probability

Chair: Mathieu Thibault

Topic Study Group 3.18: Data science teaching and learning

Co-Chairs: Daniel Frischemeier, Michelle Wilkerson.

TSG 1.3: Teaching and learning of algebra at secondary and tertiary levels

Co-Chairs: Lvnda Ball. Ami Mamolo

TSG 3.2: Mathematics education at tertiary level

Co-Chairs: Nadia Azrou, Elena Nardi

TSG 3.8: The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary level

Co-Chairs: Alison Clark-Wilson, Allen Leung

Additionally, "Surveys teams are commissioned by the IPC to examine new developments and progress on specific themes and issues that have arisen in mathematics education during recent ICMEs".

Examples of those that may interest SSA members, includes:

- Survey 2: Mathematics education and Indigenous perspectives
- Survey 3: Statistics and data science education as a vehicle for empowering citizens

Peter Howley

Chair of Statistical Education Section, Statistical Society of Australia

Career Profile

Hunter Surgical Clinical Research Unit - Statistical Research Lead Program Director - StepChange, MCB Business Partners Hunter Medical Research Institute Affiliate

15th International Congress on Mathematics Education (2024):

- Ambassador
- Chair Topic Study Group: <u>Teaching and learning of statistics</u> International Statistical Institute Elected Member

Vice President - Hunter Innovation and Science HUB

2018-19 Inaugural Science and Technology Australia STEM Ambassador

2019-20 Inaugural UON STEMM Ambassador

2018 Statistical Society of Australia Service Award

2017 International Statistical Institute's Best Cooperative Project Award

2015 National OLT Citation - Contribution to Student Learning



Tailored Insurance for SSA Members

KBI is a full-service insurance brokerage that is here to help SSA members with any commercial insurance requirements, such as:

Professional Indemnity and

Corporate Travel Insurance

- **Public Liability**
- Cyber Insurance
- Office Insurance

- Management Liability and Directors' & Officers' Liability
- Workers Compensation (state dependant)

Find out more

Join STA's Policy Committee or Equity, Diversity and Inclusion Committee

Science & Technology Australia (STA) <u>calls for applications</u> to join their Policy Committee or Equity, Diversity and Inclusion Committee.

These committee positions are fantastic opportunities for individuals to contribute their ideas and expertise to help STA achieve its mission. Candidates wishing to apply to join a Committee should be a member of an STA member organisation, and SSA is one of those.

STA brings STEM expertise and evidence to public policymaking, supports Australia's STEM workforce, and champions STEM sector diversity and inclusion.

Learn more about the <u>eligibility criteria on our website</u> and share this opportunity with your colleagues. Applications close **COB Monday 19 June**.

STA particularly encourages Aboriginal and Torres Strait Islander candidates to apply for both committees.

Apply now!

Mentioned in previous newsletters

Calling for expressions of interest – ATSIMA Conference 2023

The ATSIMA (Aboriginal & Torres Strait Islander Mathematics Alliance) 2023 conference will be held from Monday 9th to Wednesday 11th October 2023. ATSIMA is an Indigenous led, non-profit organisation incorporated in 2015. The Statistical Society of Australia (SSA) has been a member of ATSIMA since 2021.

The 2023 event is the first mathematics education conference held in a Yolngu

Community. It will provide delegates the opportunity to be immersed in a Yolngu Community, in Yolngu Language and Culture and explore the teaching and learning of mathematics that values Aboriginal and Torres Strait Islander cultures.

ATSIMA conferences attract a wide range of people from all states and territories, leaders in education from the public and private sector and many other industries Australia wide, engaged in frontline education, in curriculum development, and from Government organisations and industry.

Interested? The Statistical Society of Australia (SSA) is sponsoring one member to attend the inaugural conference. The Society will cover your registration fee and your travel and accommodation expenses. Please send your application to eo@statsoc.org.au by 5pm AEST on Thursday, 15 June 2023. Members with an Aboriginal & Torres Strait Islander background are especially encouraged to apply.

Find out more

SSA Events

Statistical Consulting Network May Meet-Up

30 June 2023, 12:30 PM – 1:30 PM AEST, held online

Come along with your thinking cap, maybe a problem, and some lunch!

The Statistical Consulting Network invites you to their monthly meet-up, a virtual lunchtime meeting where statisticians help each other out with problems that they aren't sure how to deal with. This virtual meeting is held on Zoom at lunchtime on the last Friday of each month, 12:30-1:30 PM (AEDT). We start each meet-up with announcements, or occasionally a special topic discussion, then discuss problems that attendees have brought along with them.

We also have a Slack workspace where members of the consulting network can communicate between meetings, or post problems or relevant materials they would like to discuss during a meeting.

Zoom link

Slack Workspace link

SSA WA: Perth Biostats/Bioinfo Meetup 2023

13 Jun 2023, 5:30 PM – 7:30 PM (AWST)

McCusker Auditorium, Harry Perkins Institute of Medical Research (North), Nedlands

We're pleased to invite you to the Perth Biostatistics/Bioinformatics Meetup. This is a joint event supported by the <u>WA Branch</u> of the Statistical Society of Australia (SSA), the SSA <u>Biostatistics and Bioinformatics Section</u>, <u>Clinical Trials Enablement Platform WA</u> (CTEP-WA), <u>Perth Epidemiological Group</u> (PEG), and the <u>WA Health Translation Network</u> (WAHTN).

The purpose of this event is to bring together those with expertise and/or interest in medical and healthcare statistics in Perth. It is an opportunity to socialise and network, and encourage upcoming professionals to pursue a career in this worthwhile field.

There will be three invited speakers this evening: Dr Rich Edwards (UWA) and two researchers from Biometrics at Telethon Kids Institute.

To register click here.

Navigating the Australian research funding landscape: a networking evening

15 Jun 2023, 5:30 PM - 7:30 PM (ACST), The Braggs Building, 214 Seminar Room, University of Adelaide, North Terrace

The SA Branch of the Statistical Society of Australia Inc. invites you to a special networking event that will provide insights into navigating the Australian research funding ecosystem. The event is open to members and non-members members and very welcoming of non-statistician too.

At the event you will have the opportunity to learn and discuss the following key topics:

- Navigating the Australian funding landscape
- Positioning yourself as a sought-after collaborator on grant applications
- Key points to consider when crafting funding applications

We have two great presenters from the University of Adelaide, Dr Dale Godfrey (Director of Research Grants development) and Ms Suzanne Atkins (Research Development Manager), who will be on hand to answer your questions.

Sign up here

Vic&Tas Branch, SSA: Novel applications of cross-sectoral data linkage to understand and reduce health inequities among Australians in contact with the criminal justice system

15 Jun 2023, 6:00 PM (AEST), in person TBC or online via Zoom

Join the <u>SSA Vic & Tas branch</u> as we hear from **Professor Stuart Kinner** and **Lindsay Pearce** on their work using large, cross-sectoral data linkages, including important research design, and data management, analysis, and governance aspects.

Click here to register and get more information.

SSA ECSSN and NZSA joint webinar

Much more than just fitting models - perspective from an applied statistical scientist, presented by Olivia Angelin-Bonnet.

22 June 2023 2pm AEST, 4PM NZST

In this talk, Olivia Angelin-Bonnet will be giving an overview of her role as a statistical scientist working in the fields of Systems Biology and multi-omics integration. In particular, she will discuss how being an applied data scientist is about much more than just fitting models. Olivia will talk about how modern statistician and data science roles involve working with big and messy datasets, developing complex analysis pipelines, communicating results through reports and presentations, and implementing tools for disseminating our work. A number of principles and tools (e.g. data and code versioning, unit testing, workflow management systems) can support us through these activities to ensure our work is sustainable and reproducible. She will argue that mastering these principles is rapidly becoming a core competency for the modern statistical scientist.

To register click here.

NSW Branch, SSA: June event: Prof Lucy Marshall - Quantifying the known unknowns

27 Jun 2023, 12:30 PM - 3:00 PM (AEST), 14SCO T2 Theatre, Macquarie University and via Zoom

Environmental models are essential tools for understanding complex natural systems and predicting the impacts of human activities on the environment. By simulating the behavior of physical, chemical, and biological processes in natural systems, environmental models can help make informed decisions about environmental management, policy, and planning. Environmental modeling has undergone significant advancements in recent years, transitioning from simplistic representations of ecological systems to sophisticated and integrated modeling platforms. However, these opportunities

heighten the debate about the use of methods like machine learning in disciplines like hydrology, ecology, or biogeochemistry, that traditionally has relied on the knowledge of natural and engineered systems for model development (also known as 'physically-based' models). This presentation will provide insight into these issues across a range of modeling scenarios with a focus on Bayesian inference and its application to environmental systems

To register click here.

Other events

Events Across the Australian Data Science Network (ADSN)

https://www.australiandatascience.net/events/

Public Lecture: "Data Science Meets Life Science" - Prof. Antonietta Mira

- Monday, 5 June 4 pm AEST
- QUT Brisbane & Online
- **REGISTER**

How can Data Science help improve our lives? Professor Mira will present two research lines joint with the QUT Centre for Data Science on studying the evolution of biodiversity of the Great Barrier Reef and on clustering countries based on COVID-19 data dynamics.

12th Annual AeRO Forum 2023 – eResearch & Artificial Intelligence

- Tues, 13 June, 10 am 4 pm AEST
- Canberra, ACT
- **REGISTER**

Join sector leaders to openly discuss important issues for Australasian eResearch via two Q&A style panel discussions. The first panel will focus on Al and ML in eResearch, and the second related to the Research Data Culture Conversation (RDCC), followed by the opportunity to network with colleagues from Australia and New Zealand.

ARDC Planet RDC & the Impact of Being involved in an RDA

- Weds, 28 June 3pm AEST
- Online
- Register

Join the ARDC for an exciting opportunity to explore the development if its Planet Research Data Commons (Planet RDC), through which shared data and digital research tools are revolutionising our ability to confront the most pressing environmental challenges of our time. At this webinar, you'll have the chance to hear directly from the ARDC Director of the Planet RDC.

AMSI Winter School: Modelling our Changing Biosphere

- 3-14 July
- QUT, Brisbane
- REGISTER (Registrations close 12 June)

The focus of AMSI Winter School 2023 is the Earth's biosphere, which encompasses the interconnected physical and biological systems that support human life. The hybrid program will explore how mathematical modelling can help to preserve and sustain our biosphere in the face of human-driven change.

Al for Good Global Summit

- 6-7 July
- · Geneva, Switzerland
- REGISTER

The AI for Good Global Summit is the leading United Nations initiative to identify practical applications of AI to accelerate progress towards the UN SDGs. Monash Data Futures Institute is supporting the initiative as a Gold Sponsor in 2023.

SMC Down Under: AMSI-AustMS Workshop on Sequential Monte Carlo

- 10-13 July
- QUT, Brisbane
- REGISTER

The QUT Centre for Data Science is proud to host SMC Down Under. The workshop will bring together the SMC community to discuss the theory and practice of sequential Monte Carlo. The workshop will consist of contributed talks, posters, and collaborative sessions to discuss current trends in SMC and its future directions.

ISI World Statistics Conference

- 16-20 July
- Ottawa, Canada
- **REGISTER**

The ISI World Statistics Congress (WSC) is the leading congress on Statistics & Data Science worldwide. It is held every two years, since 1887 by the International Statistical Institute (ISI).

Monash Prato Dialogue Al Summit

- 17-19 July
- · Monash Prato Centre, Italy
- REGISTER

The Monash Data Futures Institute is inviting registrations from interested professionals and researchers who would like to join our Monash Prato Dialogue Al Summit, to be held from 17-19 July 2023 at the Monash Prato Centre, Italy. The exclusive event will focus on bringing together an international network of experts in the field of Al for Social Good, spanning research disciplines across the humanities and social sciences to the technology, science and engineering fields.

Integrated Earth 2023

- 12-13 September
- The Shine Dome, Canberra
- REGISTER

ARDC, TERN, NCI, AuScope, ACCESS-NRI and IMOS are partnering to host the Australian Academy of Science Elizabeth and Frederick White Research Conference. This 2-day symposium will bring together researchers, scientists, and STEM professionals working across the 5 Earth systems: geosphere, biosphere, cryosphere, hydrosphere, and atmosphere, to address complex environmental challenges.

2nd Bayesian Nonparametric Networking Workshop

- 4-8 December
- Monash University
- **REGISTER**

We are pleased to announce the 2nd Bayesian Nonparametric Networking workshop. The format will largely follow the first of these new BNP Networking workshops that was held in Nicosia (Cyprus) in April 2022, this time with 3 minicourses delivered by Jim Griffin, Athanasios Kottas and Stephanie van der Pas, who will also deliver Keynote talks. The workshop will also feature invited talks, contributed talks and a poster session each featuring a range of different topics presented by a blend of both junior and established researchers.

Australian Statistical Conference (ASC) & Australian Conference on Teaching Statistics (OZCOTS) 2023

- 10-15 December
- Wollongong, NSW
- REGISTER

Hosted by the Statistical Society of Australia (<u>SSA</u>), this week-long conference covers both new developments and interesting applications of statistical methods. The theme for 2023 is 'Statisticians in society'. The last two days overlap with OZCOTS, providing a great opportunity to dip into the teaching of statistics. The week begins with <u>three outstanding workshops</u> on Sunday, 10 December:

- Essential Skills for Statistical Communication
- Statistical Consultancy The Essentials for Getting Started and Ongoing Success
- Deep Statistics for More Rigorous and Efficient Data Science

EmpowerHER STEM Summit

26-27 September 2023, Wollongong

The University of Wollongong is excited to introduce *EmpowerHER STEM Summit, a two-day event in the September school holidays for female students in Years 9, 10 & 11. This event is focused on inspiring the

next generation of women in STEM by "Raising the STEM-bar for Girls". Students will enjoy interactive activities and explore the world of Science, Technology, Engineering and Maths (STEM) at UOW's Wollongong Campus, Innovation Campus and external sites (TBC) with faculty, current students and local industry representatives.

* EmpowerHER STEM Summit now replaces the historical STEM Camp for Girls.

EOI for the EmpowerHER STEM Summit has just been sent out to schools and contacts. **Please SAVE THE DATE** and share amongst your staff, networks and future STEM-inists!

Find out more

Current Vacancies in SSA's Career Centre

Internal Revenue Agent (Examiner) - DIRECT HIRE (12 MONTH REGISTER)

Multiple Locations (See Description)

Internal Revenue Service

WHAT ARE THE APPEALS (AP), LARGE BUSINESS AND ...

Lecturer in Statistics

Australian Capital Territory

Australian National University

Job no: 544800 Work type: Continuing Location: ...

Postdoctoral Fellow

Australian Capital Territory

Australian National University

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

Revenue Officer- DIRECT HIRE (12 Month Register)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT IS THE DIVISION? SMALL BUSINESS ...

Internal Revenue Agent (Examiner) - Direct Hire (12 Month Register)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT ARE THE APPEALS (AP), LARGE BUSINESS ...

View All Jobs

If you have news from the Australian statistical community to share in Stats Matters and Events, please get in touch eo@statsoc.org.au" target="_blank">with us! We love getting feedback too.

<u>Unsubscribe</u>