



SSA Biostatistics & Bioinformatics Newsletter

Q4 2022

Welcome to the SSA Biostatistics and Bioinformatics Newsletter for Q4 2022



It's time for another BnB newsletter, and my turn to have a go at writing the introduction. Reading Marie-Louise's weekly stats news has given me a major case of imposter syndrome as I overcome my procrastination and force myself to start writing.

Since our last newsletter, WA has rejoined the nation and recovered from its own waves of COVID. For many of us, life has returned to normal, and the events (or non-events!) of the last 2 years seem almost surreal. I was excited to attend my first in-person conferences in almost 3 years, when I travelled to the Australian Data Science Network's inaugural conference (where I met my co-chair in person at last!) and the ABACBS national conference. I was also relieved to return home safely each time, with my luggage but no COVID. Looking forward, I think we are all watching and waiting to see what happens over the winter in the Northern hemisphere.

The COVID pandemic has raised the profile of both biostatistics and bioinformatics and will hopefully encourage more students to study our favourite subjects in both high school and university. AMSI and the SSA are currently reviewing data science in Australian Universities, and I encourage you all to consider sending in your thoughts on the matter if you haven't already.

I hope you all have a wonderful holiday season planned, but before you leave your office behind, please take a moment to send us your ideas for speakers for our 2023 seminar series, or for other events you think would be awesome for our community!

NJA
On behalf of the BnB committee

Careers Corner

Bioinformatics Research Officer
QIMR Berghofer Medical Research Institute
Brisbane
Close: 3rd Jan

Research Assistant (Bioinformatics) - Brain Cancer Laboratory
The Walter and Eliza Hall Institute
Melbourne
Close: 13th January

Senior Bioinformatician and Bioinformatician roles
Australian Genome Research Facility Ltd
Melbourne
Close: N/A

Bioinformatician
BiomeBank
Adelaide
Close: N/A

Bioinformatics Lead
Rimfire Resources
Adelaide
Close: N/A

Research Officer (Bioinformatics)
The Walter and Eliza Hall Institute
Melbourne
Close: 6th January

Postdoctoral Research Fellow (Data Science - Biostatistics)
Murdoch Children's Research Institute
Melbourne
Close: 16th December

Lecturer / Associate Professor (Biostatistics), Curtin Medical School
Curtin University
Perth
Close: 18th December

Biostatistician
The University of Sydney
Sydney
Close: Early 2023

Senior Biostatistician
Menzies School of Health Research
Darwin
Close: 8th January

Clinical Trials Biostatisticians
The Australian National University
Canberra
Close: 4th January

Upcoming Events

CPD155- The Necessary SQL - An Introduction to SQL with Daniel Fryer
SSA Workshop
Date: 6th - 7th February
Location: Online via Zoom

This course is a gentle, fast paced introduction to SQL. Our objective is to build a strong foundation and intuition for SQL programming, with an emphasis on retrieving and transforming data in a robust and testable manner. The course is suitable for beginners with no prior programming experience, but includes plenty of additional material for experienced programmers that are new to SQL.

64 World Statistics Congress
Date: 16th - 20th July
Location: Ottawa, Canada

The 64th WSC 2023, to be held 16-20 July in Ottawa, Canada, will highlight the developments and contributions of statistics, statistical science, and data science in all aspects of life, particularly the well-being and welfare of people. The WSC 2023 will host talks and presentations on a wide variety of topics, with the overall goal of presenting a balanced program that provides a sense of the current state and future direction of statistics and their applications.

IBS-AR Biometrics Conference
Date: 27th November - 1st December 2023
Location: Bay of Islands, New Zealand

Bayesian Non-Parametric Networking Workshop
Date: 4th - 8th December 2023
Location: Melbourne

2023 Australian Statistical Conference (ASC) and Australian Conference on Teaching Statistics (OZCOTS)
Date: 10th - 15th December 2023
Location: Wollongong

The theme for the 2023 Australian Statistical Conference (ASC) is 'Statisticians in society', focussing on the key role statisticians play in communication across diverse areas that are key to our society.

ASC 2023 will bring together statisticians from across Australia, as an opportunity to communicate with one another, and advance our collective knowledge of statistical methods and applications. We look forward to offering a diverse program featuring speakers from academia, government and industry across a range of disciplines and career stages. There are plans to offer some parts of the conference in a hybrid format as well. Information on Keynote Speakers and the Conference program will be available at a later date so please watch this space for updates.

The conference will be held at the University of Wollongong, situated in the heart of Wollongong. Wollongong is the third-largest city in New South Wales and only an hour from Sydney. Wollongong offers an escape-worthy collection of world-class beaches, playful adventures, eats, arts and iconic attractions.

ASC/OZCOTS 2023 promises to be a truly amazing experience on both a professional and a social level. We look forward to seeing you in Wollongong in 2023!

Meet our mailing list

An Interview with Dr Gordana



Where do you currently work?
I work at Stats Central, UNSW. We are the internal statistical consulting unit, which means we help researchers at UNSW with their statistics by running courses, consulting, and collaborating on research projects. We mainly focus on helping research students to learn how to approach statistics in their research. It is very enjoyable. I get to be part of a lot of interesting and consequential research, and do a little teaching and a lot of mentoring.

What field do you associate with, biostatistics or bioinformatics (or both)?
Neither. I think of myself as a statistician, but I do spend a lot of my time doing biostatistics in both medicine and ecology.

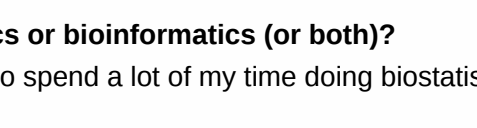
What are your background studies in and how did you join this field?
I did first year in renewable energy engineering but didn't find it that engaging so I decided to train to be a maths teacher. In second year of the maths teaching degree, I did a statistics course and loved it, so I kept doing more. How linear models work blew my mind. Eventually I decided to do honours in statistics rather than teach, and after that a PhD.

Why did you want to work in this field?
I have always loved science and maths, and statistics is maths applied to science. Now I've worked as a statistician a while, I see that most researchers don't really think of statistics that way, they tend to think of it more mechanically, as part of the recipe, and it is a shame. Statistical models try to represent the real world mathematically, and use data to find out how the world works. If you think of statistics that way, then the results of statistical models go far beyond if something is 'significant' or not, they can give you a rich representation of the small part of the universe you are researching.

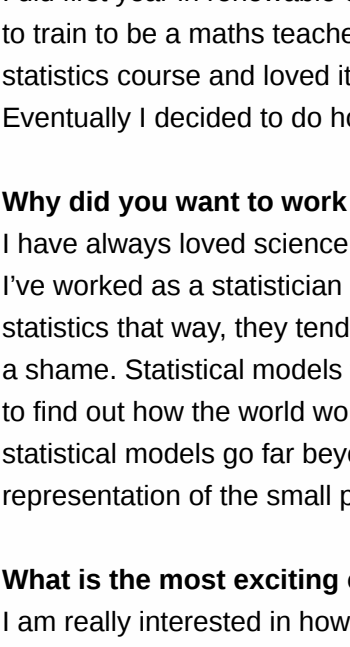
What is the most exciting concept/idea upcoming in your work or field?
I am really interested in how to educate researchers on good statistical practice. Poor statistical practice has been implicated (I think correctly) in the reproducibility crisis. Practices like p-hacking, HARKing and other 'questionable research practices' are so common, they are the default for many researchers. In my experience, this is mostly because researchers don't actually know the way they use statistics is incorrect and leads to poor research.

If you didn't pursue biostatistics and/or bioinformatics, what would have been your alternate career?
I would have become a high school maths teacher. I still might, someday

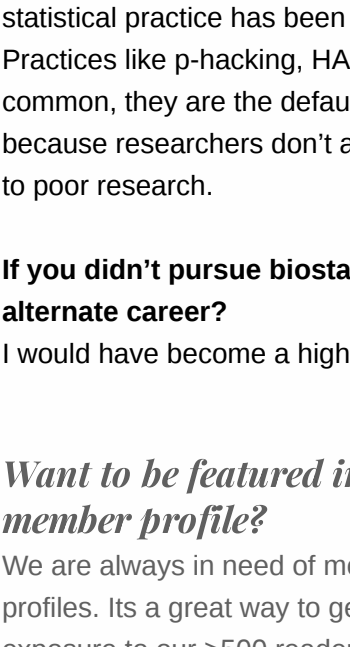
Want to be featured in the next member profile?
We are always in need of more member profiles. Its a great way to get some exposure to our >500 readers. If interested, please let [Alberto Kettel](mailto:Alberto.Kettel@unsw.edu.au), [Aguirre](mailto:Aguirre@unsw.edu.au) or [Nicola Armstrong](mailto:Nicola.Armstrong@unsw.edu.au) know.



Podcasts & Blogs



The Effective Statistician
Alexander Schacht and Benjamin Piske
Learning and following up on the topics in this podcast will help you to become more effective at work through:
• Learning about ongoing methodological discussions
• Applying better statistical methods
• Building competency
• Becoming a leader (with or without an administrative title)
• Influencing without authority
• Building your brand
• Getting the right things done effectively
• Collaborating effectively within and across companies/organizations



Micro Binfie Podcast
Dr Nabil-Fareed Alikhan, Dr Lee Katz, Dr Andrew Page
Microbial Bioinformatics is a rapidly changing field marrying computer science and microbiology. Join us as we share some tips and tricks we've learnt over the years. If you're student just getting to grips to the field, or someone who just wants to keep tabs on the latest and greatest - this podcast is for you.

Do you have a favourite statistical podcast or blog?
If you would be happy to provide a brief overview of your favourite statistical podcast or blog to feature on our mailing list, please contact [Kylie-Ann Mallitt](mailto:Kylie-Ann.Mallitt@unsw.edu.au) with the details.

Featured articles

Applied statistics in ecology: common pitfalls and simple solutions.
Steel, E. A., M. C. Kennedy, P. G. Cunningham, and J. S. Stanovick. 2013. Applied statistics in ecology: common pitfalls and simple solutions. *Ecosphere* 4(9):115. <http://dx.doi.org/10.1890/ES13-00160.1>

I chose to highlight this paper as it is an easy read, and although it is no news to most of us, it does give certain reminders about things we face as collaborators and consultants in biostatistics and Bioinformatics. Steel et al present some of the common pitfalls in a not technical way and I think that in our roles we are also educators of our collaborators. Hence this may be a handy reference to pass on to non-stats collaborators as a way of hopefully pre-empting such issues

Recent publication that you'd like to share?
We love learning about all things related to biostatistics and bioinformatics. If you have a recent publication (your own or other) that you'd like to have featured in our newsletter, please contact [Nicola Armstrong](mailto:Nicola.Armstrong@unsw.edu.au) with the details.

Closing comments

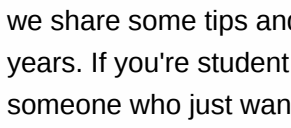
Closing Comments
Our Section is interested in biostatistics and bioinformatics and we are looking for ways to make your membership of more use to you. We are all committed to assisting our members with the content of this newsletter, whether it helps your career in these fields or raises new opportunities for getting involved in the fields. As such, we need to hear from our members, especially regarding ideas for events, presentations, and/or workshops that we are not aware of, or that you'd like to see happening. We hope you enjoyed reading all different parts of the newsletter. Feel free to suggest other items for newsletter. We hope all our members stay safe and well into 2023, and as we start planning for our 2023 conference.

If your colleagues would like to receive this newsletter, they can sign up via mailchimp

To view previous newsletters please see our [section's webpage](#).

Social media

We encourage all our members to follow our activities on our social media account links below. We actively promote upcoming events, job opportunities and relevant material. Our online community is growing on Facebook and Twitter! If you have any material you would like us to promote on our social media outlets or share with fellow members, please let [Kylie-Ann Mallitt](mailto:Kylie-Ann.Mallitt@unsw.edu.au) know.



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