

Australasian Region

# Newsletter

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<http://www.BiometricSociety.org.au>

## From the President's desk, David Baird ([David@vsn.co.nz](mailto:David@vsn.co.nz))



This newsletter is later than I had hoped, but I've been delaying it part from busyness, but also as I was wanting to announce where the next Australasian Biometrics conference will be. I'm very glad to announce that Scott Foster will be chairing the local organizing committee for the next conference to be held in Tasmania on the 30<sup>th</sup> November until the 4 December. The venue will be decided this month, and more details will be provided then. I'm chairing the scientific programme committee and if there are people who you would like to recommend as invited speakers or for workshops, please email me suggestions.

In July I attended the International Biometrics Conference in Florence along with 24 other Australasians. Florence is a beautiful city, and it was a delight to see the Duomo and the statue of David, amongst so many lovely sights. The Italian organizers lived up to their stereotypes and the organization was quite haphazard. My favourite glitch was being told that I was using the wrong browser (Internet Explorer, used by the majority of users) to download the conference programme. They made me use Chrome, rather than remove a space from the programme file name which was causing IE problems. I hope our conferences are more user friendly than this, as we always work hard to make everything as easy as possible for you. For the next conference we have brought on board 3 enthusiastic young members to help make it better for our younger members. Due to the conference being in Tasmania, we are making ecology the main conference theme, but also want to cover the medical and agricultural interests as normal. I also am hoping the current president of the IBC, John Hinde, whom I met in Florence can attend our conference.

Since coming back from 2 months in Europe, I've been busy with analysing the NZ national grass variety trials, completing some modelling work for the Earthquake Commission and travelling around Australia and NZ giving workshops on the latest release of GenStat. Unfortunately, in the middle of all this my computer crashed with a motherboard failure. Luckily I had everything backed up, and lost nothing. However, because I couldn't buy the identical motherboard, I couldn't reinstall Windows from the system backup, and my RAIDed drives needed to be recreated, as the BIOS was different. I keep all the installation files for my software and the license keys on my backup drive, so this just took time. So the moral of the story is don't trust so called fault tolerant RAID (I had mirrored drives) for back-up, and don't trust a system backup, unless you can replace your motherboard with an identical version. Before people point the finger at Windows, my Linux Virtual Machine also had to be rebuilt, as the motherboard swap killed it also. People in institutes have the luxury of back-up being done for them (hopefully) but buy an external drive for your home PC or laptop and back up regularly. I back-up my data every night and system once a week onto two separate drives, one internal, one external and then rotate the external drive with one kept at my daughter's home.

This newsletter also contains an article on Brian Niven who has been the IBS-AR NZ sub-treasurer, collecting NZ fees for the last 30 years. He has now retired from Otago University and I want to thank him for all his work over the years and wish him a happy retirement. Also Mario D'Antuono is reporting on a collaboration with SSAI in Perth. There is a new funding policy where IBS-AR can help fund local events with 10 or more members present which Mario has used to support this. Please email me or Warren Müller ([warren.stats@internode.on.net](mailto:warren.stats@internode.on.net)) for more information if you want to use this. It's only two

months now until the AASC in Port Lincoln and I hope to see many of you there. This will be my last newsletter, as I'm handing over presidency to Ross Darnell in the New Year.

David.

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## Australasian Region - council

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In 2014, the regional council comprises:

**President:** David Baird (VSN NZ)

**Vice-president:** Ross Darnell (CSIRO)

**Secretary:** Katya Ruggiero (University of Auckland)

**Treasurer:** Warren Müller (Retired)

**Newsletter correspondent:** Vanessa Cave (AgResearch)

**Regional website manager:** Hans Hockey (Biometrics Matters)

**IBS Executive Board:** Alan Welsh (Australian National University)

Kerrie Mengersen (Queensland University of Technology)

**IBS Representative Council Members:** David Baird (VSN NZ), Ken Russell (Charles Sturt University) and Katya Ruggiero (University of Auckland).

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## Upcoming Conferences

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### Australasian Applied Statistics Conference

The next AASC is being held at Port Lincoln, South Australia, 1-5 December 2014: <http://aasc.org.au>.

Contact Olena Kravchuk for more information at [olena.kravchuk@adelaide.edu.au](mailto:olena.kravchuk@adelaide.edu.au)

### NZSA Conference

The Operations Research Society of New Zealand and the New Zealand Statistical Association are holding a joint conference in 2014. The meeting, hosted by Victoria University of Wellington, will be held on 23-26 November 2014. For more information visit [www.stats.org.nz/conference](http://www.stats.org.nz/conference).

### Australasian Biometrics Conference

The next IBS-AR conference is being held in Tasmania, 30 November-4 December 2015. Contact David Baird for more information at [david@vsni.co.nz](mailto:david@vsni.co.nz).

### International Biometrics Conference

The next IBC will be held in Victoria, British Columbia, Canada, 10-15 July 2016.

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## **2014 Scholarships for Honours and Masters Students and IBC Travel**

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Three awards were made at the start of the year to honours and masters students. They were to:

### **Jeanette Koh, Murdoch University.**

Jeanette is doing an honours project "Incorporating Classification Uncertainty into Biomedical Analyses", where she will be investigating the impact of uncertainty in classifications and endpoints on statistical inferences, as in survival curve analysis. During her degree, she has completed two bioscience summer research projects. The first project, at the vet school, was to optimize a biological assay to detect hormone levels within a specified sensitivity range, while the second investigated the genetics of asthma at the Lung Institute of Western Australia.



### **Matthew Tuson, University of Western Australia.**

Matthew is interested in the applications of statistical methods to the biosciences. For his honours thesis he is working in a collaborative project in Genetic Epidemiology where he is comparing the relative effectiveness of different statistical methods in the detection of association between rare genetic variants and traits of common complex disease. During a summer break he worked on a project on Alzheimer's disease.



### **Manasi Parulekar, University of Auckland.**

Manasi has a special interest in medical statistics and is doing an honours degree after having previously completed a degree in psychology and pharmacology. She had a summer studentship working with a diabetes research group. She has a wide range of interests outside statistics being involved in playing the violin, badminton, debating, painting and the university student executive.



The IBC travel awards were made to:

### **Francis Hui University of New South Wales.**

### **Fani Shabnam, University of Auckland.**

Francis has written a report of his time at IBC later in the newsletter. Unfortunately Fani was unable to take up the scholarship for personal reasons.

## Experiences from IBC Florence 6-11 July 2014

Florence - what can I say? A city steeped in amazing architecture, museums showing Firenze's rich history, the best pasta and pizza on pretty much every street, and my brain more or less frozen from consuming way too much gelato....such a shame there was a conference on!

IBC has been nothing short of a spectacular experience. There were some fantastic talks and posters. It's only at such an international conference where you get to appreciate the breath of research biometricians all around the world are doing - from topics I was more familiar with such as hierarchical modeling for species communities, to areas totally foreign to me like analysis of adaptive clinical trials with biomarkers in oncology. The diverse nature of the IBC program (although I would have liked to have seen more non-medical sessions) was a highlight for me - it was "dauntingly fun" to attend a talk and read a poster where the title makes completely no sense to me, because those were usually the ones where you learnt the most and realize "Hey! That idea might just be something I could try and adapt to my research".

Though I have to confess, the real highlight of the conference for me was not the talks but the networking during the conference. As a young statistician, it's amazing to be able to put faces to names whom you've seen on textbooks or Google scholar, and realize that these big-time academics are just folks you can talk to informally without feeling overawed. And then, of course there are the fellow young statisticians - a cohort I will "grow old together with" in the academic world, and who share the same joys ("Yeah! My first ever accepted paper!") and worries ("Oh no! I need to find a job post PhD!!!") that I have. For me, that's the greatest benefit of attending IBC - sowing the seeds for potentially lifetime collaborations with young statisticians all around the world, and giving me a good excuse to go for more traveling. See you at the next IBC!

Francis Hui, PhD Student, University of New South Wales and CSIRO



The young stats group at the Piazzale Michelangelo - Image courtesy of Tito Manrique.

## **Brian Niven, University of Otago**

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After more than 40 years of invaluable service, Brian Niven recently retired from the department of Mathematics and Statistics. Brian provided statistical advice to many students and staff, and also worked on external consulting projects. He graduated with Honours in Mathematics in 1970, followed by an MSc in Computer Science in 1974, supervised by Brian Cox. He was taught by both Geoff Jowett and John Harraway. Geoff influenced Brian to go into statistics. Most statistics courses were primarily mathematical in those days, with little in the way of application, but Geoff made sure the students had fun, for example by generating random numbers and collecting their own data, such as a multivariate data set of leaf measurements.



Brian Niven being farewelled by John Harraway

Brian began working as a tutor in 1970 in what was then the Department of Mathematics. Between 1972 and 1975 he worked as an Assistant Lecturer, before being appointed to the role he occupied for the next 39 years, working as a consultant within the newly formed Biometrics Unit, which became the Centre for the Application of Statistics and Mathematics (CASM) in 1987. Brian collaborated on papers with many of his clients, and was a co-author on 89 articles.

Brian has many perspectives on how his job has changed over this period.

Much of his early work involved giving advice about programming (typically SPSS, SAS or Minitab on a mainframe), as there was a much narrower range of analysis options available in those days. Brian recalls one Zoology postgraduate suddenly realising the value of statistics when Brian helped her with the analysis of data from an experiment in which some of the observations had been lost due to damage in the field. A common theme throughout his working life has been the educational role of the consultant, such as helping people interpret a p-value properly, and providing guidance as to the meaning of statistical significance.

Interestingly, Brian says that the proportion of people he sees with little or no background in statistics appears to be increasing, perhaps due to an increase in the use of statistics in the humanities. He estimates that only 5% of clients asked for help with design, whereas about 50% should have done so! He also says it can be hard to tell someone that they cannot draw any valid conclusions from their data, such as when there is clear confounding or lack of replication.

Brian will also be greatly missed after many years dedicated service as the Department's Health and Safety Officer, and as a Member of the University's Timetabling team for over 40 years. He also provided excellent financial oversight, as treasurer for both the International Biometric Society (Australasian Region) and several conferences, including all four of the Statistics in Ecology and Environmental Monitoring (SEEM) conferences.

Brian provided advice and support to so many people over his time at Otago, and always did so with a gentle sense of humour. He will be greatly missed and everyone in the department wishes him well for the future.

David Fletcher, University of Otago

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## Collaboration between SSAi and IBS-AR, Western Australia

Last year August 2013, I began a special arrangement with the Statistical Society of Australia (WA Branch) whereby an IBS member would give the monthly seminar. Last year, I gave the talk and this year Karyn Reeves, from my Department's Biometrics Unit presented the talk "Using linear mixed models and principal components to identify patterns of genotype by environment interaction in pre-breeding trials".

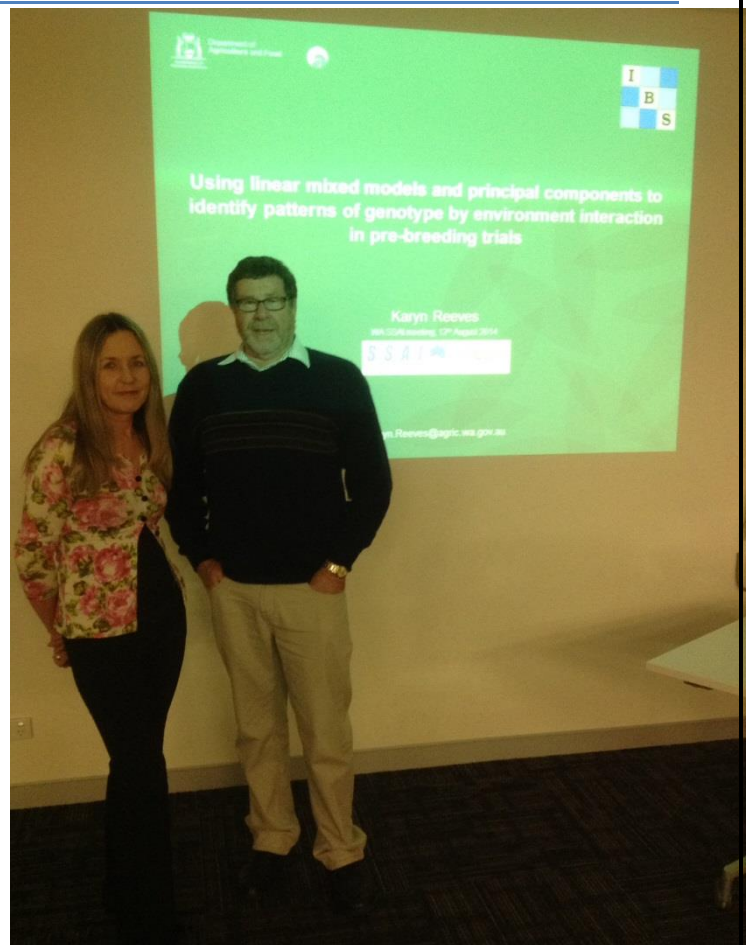
Karyn gave a review of current approaches used to identify patterns of genotype by environment interaction in multi-environment trials by applying them to wheat yield data taken from the Managed Environment Facility drought benchmarking study, analysing the data with single-stage and variously-weighted two-stage approaches, and comparing the results from the different methods.

The work is based on the approach by Alison Smith and her colleagues from University of Wollongong and University of Western Australia, in the "Statistics for the Australian Grains Industry (SAGI) project",

funded by the GRDC <http://www.grdc.com.au>. Karyn presented a very thorough presentation on the use of the factor analytic model in linear mixed models using the ASReml-R package in R.

Special thanks to Karyn for her efforts in tackling this large topic since completing her PhD in a medical statistics background with Professor Ian James at Murdoch University.

Mario D'Antuono, Department of Agriculture and Food, Western Australia



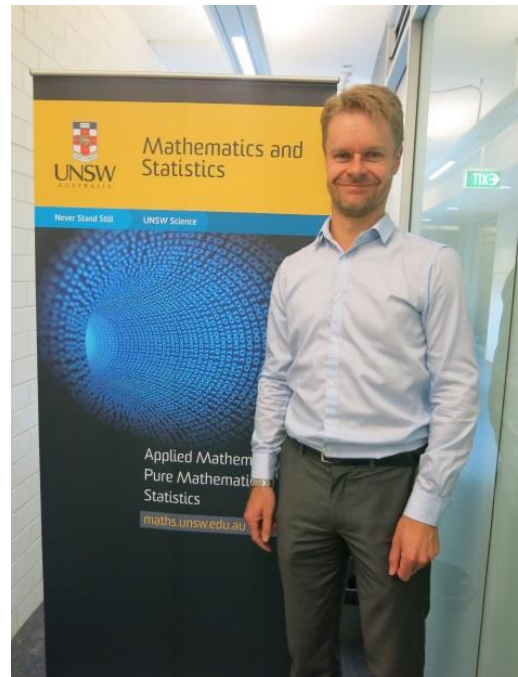
Karyn Reeves with Ian James

## David Wharton: AASA Young Investigator Award

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Congratulations to Australasian IBS member David Warton on being awarded the 2014 Young Investigator Award from the American Statistical Association Section on Statistics and the Environment. Aiming to encourage younger members (under 41) of the environmental statistics community, the award is presented in recognition of outstanding contributions to the development of methods, issues, concepts, applications, and initiatives in environmental statistics.

David is delighted to receive the award, and is *"especially pleased to see some international attention for Australian ecological statistics research, as there are some exciting ideas coming out of this corner of the world at the moment"*. David is grateful to his talented team of students, post-docs and collaborators who *"continue to be a pleasure to work with"*. David Warton is an Associate Professor in the School of Mathematics and Statistics at the University of New South Wales.



David Warton

David is keen to organise another Eco-Stats Symposium at the University of New South Wales, following on from last year's success. The symposium will be designed as a collaborative forum for researchers with interests in ecology, statistics, or both. If you're interested in organising a session, please contact David at [david.warton@unsw.edu.au](mailto:david.warton@unsw.edu.au).

See <http://www.eco-stats.unsw.edu.au/symposium.html> for more information.