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Newsletter

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Photo by Dean Pemberton of the view from the 5th floor of the Cotton building used and relicensed under Creative Commons

NZSA 2009 Conference Victoria University of Wellington

Official Report

The Victoria University of Wellington School of Mathematics, Statistics and Operations Research hosted the 60th Annual Conference of the New Zealand Statistical Association on 2-3 September 2009, with John Haywood the Conference Chair.

Things seemed to go very well, and there were numerous photos taken by Harold Henderson and Rod Ball (among others!). One highlight was the presentation of the Campbell Award to Emeritus Professor David Vere-Jones, which occurred at the Conference Dinner on 2 September 2009. The purpose of the award is to promote statistics within NZ and to recognise an individual's contribution to the promotion and development of statistics.

Professor David Vere-Jones and NZSA President Jennifer Brown

Throughout his career DVJ has generously contributed to statistics education at all levels - inside and outside Victoria University - and he has an outstanding research and publication record. We are delighted to celebrate the award of this honour with David. A further highlight at the Conference Dinner was the awarding of Honorary Life Membership of the NZSA to Robert Davies, in honour of his long and distinguished record of service to the Association. These highlights are mentioned in more detail later in this issue.

John Haywood with Vijay and Corinne Nair

There was a total of 76 verbal presentations at the NZSA Conference over the two days, including three plenary sessions by Matt Wand (University of Wollongong), Vijay Nair (University of Michigan) and a session concerning the future of the ANZJS with four brief talks. There were 15 contributed student talks, 44 contributed talks from non-students, a set of five single-session talks on Statistical Education, a further six Statistical Education workshops and eight poster presentations were displayed around the area

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Participants at the keynote presentation by Matt Wand

used for conference refreshments, which made some welcome lunchtime reading. In addition there was a one-day workshop on Semiparametric Regression given by Matt Wand that preceded the conference on Tuesday 1 September, and a three-hour introduction to SAS Enterprise Guide software on the morning of Friday 4 September. Further details, including the online and pdf versions of the programme, with abstracts for all the talks and posters, are available at the conference web page: http://msor.victoria.ac.nz/Events/NZSA2009.

Matt Wand (back, second from right) with some of the attendees at the young statisticians' breakfast

Student Prizes

Thanks to Offlode for providing NZ$1000 in student prizes, and for presenting those prizes at the conference dinner. The results for the top student presentations were:

Best student talks:

1st equal: Tilman Davies: "On adaptive kernel estimates of spatially dependent disease risk", and

Ting Wang: "Hidden Markov models and mutual information investigation of possible link between GPS measurements and earthquakes"

3rd place: Keng-Hao Chang: "Robust regression using nonparametric scale normal mixtures"

Best poster: Lisa Woods: "A probabilistic method of tectonic stress estimation"

Acknowledgements

In addition to Offlode's student prizes, thanks to the other conference sponsors for their generosity: SAS, VUW School of Mathematics, Statistics and Operations Research, and Statistics New Zealand. The rest of the Organising Committee deserve thanks too: Richard Arnold, Stefanka Chukova, Ivy Liu (all VUW), Catherine Cameron, Harold Henderson, Roger Littlejohn (all AgResearch), Mike Camden (Statistics New Zealand) and Ian Westbrooke (DOC). A big thanks for administrative support from local (VUW) staff and students, with special mention for Rowan McCaffery, Christo Muller and Ginny Whatarau.

John Haywood

Paul Bracewell from Offlode with student prize co-winners Ting Wang and Tilman Davies

Students' Perspectives

I like nothing more than to arrive at a conference sweating and out of breath. Which is precisely why the mostly uphill city of Wellington and its Victoria University provided an ideal setting for the 2009 NZSA conference. Luckily, though, there was plenty of chance to rest and take in some exceptional sessions from both academics and postgraduates.

I found the room for the workshop on semiparametric modelling to have moderately comfortable seats. Oh, and the course itself, given by Matt Wand, was extremely well-led and full of interesting stats. The workshop led to two more days of talks; I mostly attended the student sections.

Funnily enough, I found myself actually understanding parts of various presentations to the point of even having questions to ask. This reflects the quality of the talks as well as my slowly increasing ability to listen to things that don't directly concern me or my Playstation – and in spite of the rather odd student breakfast of spring rolls and wontons, the organisers of NZSA 2009 deserve a great deal of credit for supporting these fun and informative discussions.

Tilman Davies

Attending the NZSA conference was a great opportunity to attend talks from different areas of statistics. The successful applications of statistics to a variety of disciplines proved the value of statistics in solving real-world problems. Students from throughout New Zealand were able to present their work, and generous prizes for student talks and posters were awarded.

Apart from what I have learnt from the contributed talks, I really enjoyed the one-day short course and the plenary talk given by Professor Matt Wand on Semiparametric Regression. When I was doing my Masters back in China four years ago, we had a course on Nonparametric and Semiparametric Analysis. It was purely a theoretical course. Professor Wand not only introduced the theoretical background and the recent development of semiparametric regression, but also illustrated principles and practical use of the method using R scripts. It made us appreciate the power of statistics and the modern technology.

The special social activity for young statisticians, the Young Statisticians' Breakfast, provided a good environment for the students to network.

Ting Wang

Young Statisticians' breakfast

For Today's Graduate, Just One Word: Statistics

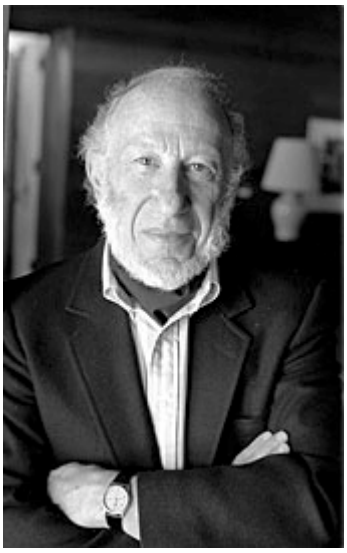
A recent article in the New York Times discussed the new-age statistician: In this article, Erik Brynjolfsson, an economist and director of the Massachusetts Institute of Technology's Center for Digital Business, said "We're rapidly entering a world where everything can be monitored and measured." He continued, "But the big problem is going to be the ability of humans to use, analyze and make sense of the data." The new breed of statisticians tackle that problem. The full article is available at

http://www.nytimes.com/2009/08/06/technology/06stats.html

Similar career advice from the Chief Economist at Google is at http://www.youtube.com/watch? v= D4FQsYTbLoI

NZSA Visiting Lecturer 2010

We are delighted that Professor Ingram Olkin (Stanford University) will be the NZSA Visiting Lecturer for 2010. His visit will be associated with our next conference and the joint International Conference on Statistical Methodologies and Related Topics celebrating the contribution of Chin-Diew Lai. Dr Olkin



is an icon in the world statistical community, having been active for over 60 years. He is a member of many professional societies, has received many honours and awards, has held and holds many editorial positions, and has delivered numerous invited addresses all over the world. Ingram has coauthored 7 books, edited 10 books, and contributed 220 journal papers. His joint paper with Albert Marshall "A multivariate exponential distribution" was cited in 610 articles – a testament to high calibre research.

Dr Olkin's work is aimed at ensuring that educators select the proper statistical tools for measuring the outcomes of their programs and methods, and that their interpretation of the results is similarly rigorous. His research includes the development of powerful new statistical methods for combining results from independent studies that have analysed the same topic. Meta-analysis is assisting researchers to reconsider long-standing educational problems with a fresh critical eye. Dr Olkin is a Guggenheim, Fulbright, and Lady Davis Fellow, with an honorary doctorate from De Montfort University. He received his BS in mathematics at the City College of New York, his MA from Columbia University, and his PhD from the University of North Carolina.

Dr Olkin's research interests include analysis of social and behavioural models; multivariate statistical analysis; correlational and regression models in educational processes and meta-analysis.

Usually the NZSA Visiting Lecturer will spend two to three days at each of the six main university centres, and give at least two lectures at each place: one for a general audience, and one more closely tied to his or her own particular research interests.

Chin-Diew Lai and Roger Littlejohn

Conference Brief

See Gordon Smyth's Australasian conference list
http://www.statsci.org/conf/index.html

New Zealand Mathematics and Statistics Postgraduate Conference

Manawatu, 23-29 November 2009

http://nzmasp09.massey.ac.nz/

Biometrics on the Lake

Suncourt Hotel & Conference Centre, Taupo
29 November -3 December 2009
biometrics.org.au/conferences

NZSA Conference 2010

Palmerston North, 29 June - 1 July 2010

http://nzsa_cdl_2010.massey.ac.nz/

ASC2010, Australian Statistics Conference

Fremantle, 6-10 December 2010

www.promaco.com.au/2010/asc/

25th International Biometric Conference

Florianapolis, Brazil, 5-10 December 2010

http://www.tibs.org/Interior.aspx

One Day Meeting of Palmy-Statisticians

Presented by
Institute of Fundamental Sciences
Massey University
Palmerston North

Venue: Bernard Chambers A - Fernwood Rm
Date: 23 October 2009
Time: 9 am - 5 pm
Keynote Speaker: Dr Ross Ihaka

The purpose of this forum is to bring statisticians in and around Massey University together for a day at our Institute for the presentation of their current research work and group discussion on issues relevant to applications.
Contact Ganes: s.ganesalingam@massey.ac.nz

President's Column

Last week was the 2009 NZSA conference held in the capital city, Wellington. I've now had time to reflect on the conference, and think about the positive, encouraging and enthusiastic people in the NZSA. The conference was a great success. Thank you to John Haywood and team for their hard work. The organization for the meeting was excellent, it all ran smoothly and the number of people attending was very high. It was good to see so many students, and all gave excellent talks. Congratulations to the student prize winners. The highlight of the conference for me was the award to David Vere-Jones of the Campbell Award, and conferring Life Membership for Robert Davies. Both David and Robert have made significant contributions to the profession of statistics.

Conferences are a good opportunity to catch up with old friends and meet new ones. I always like that part of meetings. Conferences are not all about chatting though and the standard and mix of talks was very stimulating. At every conference there is one talk that stands out for me, and this year it was the presentation by Evan Stubbs, Solution Manager for Analytics at SAS. What I liked about this talk was the reality-check it gave me – are we producing graduates NZ needs, or are we producing graduates we think NZ needs? It certainly was a wake-up call for me at University of Canterbury to really think about our statistics undergraduate programme of study.

While I am on the topic of University programmes I want to highlight the comment I made in the AGM President's report. At Universities, the next Performance-Based Research Fund (PBRF) is looming over us. The 2012 evaluation is coming up fast when we have to supply evidence of research activities. An issue in previous PBRF rounds has been accounting for teaching staff who are employed mainly for large service statistics classes and who have position descriptions that do not include research. In the mathematical sciences we have a high proportion of these staff and they are vital to the teaching of mathematics and statistics. Without them I wonder if we could create the positive learning environments that we currently do. I encourage all University mathematics and statistics departments to

work together and use a common and transparent system to account for these staff in PBRF. My concern is that if we don't work together then we are in jeopardy of undermining the very thing University statistics does well – ensuring statistics is available to every student regardless of their subject major.

The year has gone very fast, and already I am planning my summer holiday (i.e. get some research time). I hope you all are enjoying the warmer weather and looking forward to a refreshing summer.

Jennifer Brown

Editorial

I remember a few months ago there was a discussion on one of the mailing lists about the Monty Hall problem (there is an exhaustive explanation on Wikipedia – including the Bayesian solution). I first came across this problem at University when the question was posed in a 100 level psychology paper. The next time I heard of it was when it was discussed in the 2003 Whitbread Book of the Year novel "The Curious Incident of the Dog in the Night-Time". This book is told in the first person by a 15 year old boy with Asperger's Syndrome, and covers mathematical aspects from Chaos Theory to prime numbers – and highlights the fact that most people are surprised at the ultimately correct answer to the Monty Hall problem.

Apparently I'm a nerd – but ever since that first exposure to the Monty Hall problem it's become a bit of a social game for me to pose the problem to friends and watch the pleased look on their faces as they work it out. So, for all those who have not heard of the problem before, give this probability puzzle a go:

Suppose you're on a game show and you're given the choice of three doors. Behind one door is a car; behind the others, goats. The car and the goats were placed randomly behind the doors before the show. The rules of the game show are as follows: After you have chosen a door, the door remains closed for the time being. The game show host, Monty Hall, who knows what is behind the doors, now has to open one of the two remaining doors, and the door he opens must have a goat behind it. If both remaining doors have goats behind them, he chooses one randomly. After Monty Hall opens a door with a goat, he will ask you to decide whether you want to stay with your first choice or to switch to the last remaining door. Is it to your advantage to change your choice? (Krauss and Wang 2003:10 http://people.usd.edu/~xtwang/Papers/MontyHallPaper.pdf)

Esther Meenken

Back Copies of NZ Statistician

A CD archive of "The New Zealand Statistician" is available from the NZSA. For details see http://nzsa.rsnz.org/archive_NZS.shtml.

Copies of this CD are available for

Current members $5
Past members $25
Non members and libraries $55

To order a copy email Harold Henderson (Harold.Henderson@agresearch.co.nz).

Submissions to the Newsletter

The Newsletter welcomes any submissions of interest to members of the NZSA. News about New Zealand statisticians, statistical meetings, statistical organisations, statistics in education, or statistical curiosities are suitable for inclusion. Letters that raise issues of importance to statistics in New Zealand are also welcomed. Photographs of recent gatherings and new appointees are of particular interest. Electronic submissions are preferred.

Next deadline 16 March, 2010

Advertising In the Newsletter

The Newsletter accepts advertising of interest to statisticians in New Zealand. Advertising is placed subject to space considerations. Personal advertising by NZSA members will be published free. Other advertising is $250 per page, $140 per half page, and $75 per quarter page. Other sizes can be quoted on request. All advertising requests should be directed to the editor.

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Newsletter on Web

An online version of this newsletter is available at
http://nzsa.rsnz.org/Newsletter70/index.htm
It will be regularly updated with information and your letters.
Email: esther.meenken@plantandfood.co.nz

Awards

Campbell Award

Emeritus Professor David Vere-Jones received the NZSA Campbell Award for 2009. The award was presented at the NZSA Conference dinner at the Skyline, and was given in recognition for his contributions to the statistical sciences, both here in New Zealand and internationally.

David is a former president of the NZ Statistical Association and founding president of the NZ Mathematical Society. In 1982 he was elected as a Fellow of the Royal Society of New Zealand. Not long after his election he was appointed to the Council of the Royal Society of NZ, and was instrumental in forming the Society's Education Committee which he chaired from 1987-90. This committee became involved in a variety of projects, including promoting school-industry links, commentaries on syllabus reforms and other proposed education changes. His 1987 Royal Society Report with Megan Clark continues to be influential.

David has an international reputation in statistics. He received the Rutherford Medal, New Zealand's top science award, in 1999 for "outstanding and fundamental contributions to research and education in probability, statistics and the mathematical sciences, and for services to the statistical and mathematical communities, both within New Zealand and internationally". (See http://nzsa.rsnz.org/newsletter/News001.pdf P6).

David played a leading role in setting up a series of Statistical Seismology workshops, with the first in China (hosted by the China State Seismological Bureau) and the second timed to coincide with his Festschrift on the occasion of his 65th birthday in 2001 (see http://nzsa.rsnz.org/newsletter/News012.pdf P4). These workshops continue to be held every year or so, and have helped the formation of Statistical Seismology as a sub-discipline in its own right. For further information see www.ism.ac.jp/~ogata/Ssg/ statsei indexE.html and David's Festschrift article Vere-Jones, D. (2001) The marriage of statistics and seismology. J. Appl. Prob. 38A, 1-5. Information on David's Festschrift volume and path-breaking point process reference texts (with Daryl Daley) can be found at www.statsresearch.co.nz/events.htm

David was one of three founding directors of Statistics Research Associates Ltd (www.statsresearch.co.nz). Under its auspices, David led a number of successful research projects on earthquake risk modelling with funding from Marsden (a number of grants), IGNS (an ongoing involvement through sub-contracts) and the NZ Earthquake Commission. He also has been Director of a research programme funded by the NZIMA on Hidden Markov Models and Complex Systems.

He continues to be well-connected internationally and enjoys strong research collaborations with colleagues in Japan and China in particular. In 2005 David was a joint author and reviewer for the SSAI sponsored review "Statistics at Australian Universities" with Adrian Smith (Queen Mary College, London) and Ian James (Murdoch University, Western Australia). This review has been influential in both Australia and New Zealand.

His personal contributions to statistics include mentoring many students and bringing many eminent statisticians to New Zealand. He has also made a fundamental contribution to statistical education in New Zealand, which is now regarded as world-leading.

Many of the participants at the conference spoke of David, and of his warmth, and enthusiasm for statistics. The words "It is because of David I became a statistician" were said by many of his former students.

Congratulations David, and thank you for all you have done for statistics, both nationally and internationally.

David Vere-Jones (centre), who received the Campbell Award 2009, with family members.

Roger Littlejohn

Campbell Estate Fund

The NZSA was the recipient of a very generous donation ($48,000) from Professor Campbell's estate.

There is roughly $1500 funding available each year for special projects that are in the realm of Professor Campbell's interests. Refer to nzsa.rsnz.org/funding.shtml for more details.

Applications are received twice a year (April/

October) and are invited for funding for projects in 2009/10. There is no formal application process but please supply details of your project, the full project budget, the amount you are requesting, a short statement about why your project is within Professor Campbell's interests, and your full contact details.

Please send your applications to the Secretary, Richard Penny (rnpenny@stats.govt.nz), NZSA, PO Box 1731, Wellington.

For more details contact Roger Littlejohn (roger.littlejohn@agresearch.co.nz) or Harold Henderson (harold.henderson@agresearch.co.nz).

Roger Littlejohn

Honorary Life Membership

Robert Davies was elected to Honorary Life Membership of the NZSA at the AGM, and was presented with an award at the conference dinner. Robert was President of the NZSA from 1979-1981, and head of the Applied Mathematics Division of the DSIR from 1982-1992. Following several years as an independent statistical consultant, he helped set up Statistics Research Associates Ltd (SRA) in 1999 and was one of its founding directors.

In addition to his contributions to NZSA and his decade with SRA, Robert's main contributions to New Zealand statistics were mainly through his long-term involvement (almost 30 years) with the DSIR Applied Mathematics Division. He joined AMD in 1964 and became director in 1982. He was director for 10 years until the demise of AMD in 1992. AMD had a very profound and long-lasting impact on New Zealand statistics (see Stan Robert's *History of Statistics in New Zealand*) and was the training ground for many of New Zealand's leading statisticians including Peter Whittle, John Darwin, Bob Williams, David Vere-Jones and Alastair Scott to name but a few.

Robert was a student of Professor Jerzy Neyman and his thesis on Beta-optimal tests was, like his subsequent work, of extremely high quality and of lasting value. Indeed, his publication list has among the highest density of highly cited publications of any New Zealand statistician. His papers on hypothesis testing when a nuisance parameter is only present under the alternative are very highly cited in econometrics, and his work on time series inference continues to be influential. He also has strong interests in statistical computing. His computationally efficient Newmat C++ matrix library continues to attract users from a wide variety of disciplines and still performs well in international benchmark comparisons. He also has internationally recognized research expertise in random number generation and testing.

Colleagues at the conference dinner spoke very highly of Robert and especially the high quality of his statistical advice. Robert has an extraordinary breadth of statistical skills and experience and always gives thoughtful and incisive advice when asked. His contributions have been of enormous value to those privileged to work with him.

Robert Davies (centre), who received Honorary Life Membership, with erstwhile DSIR colleagues Tim Ball (left) and Kit Withers (right)

Roger Littlejohn

Fellow of the American Statistical Association (FASA)

Prof. Chris Wild (Statistics Department, University of Auckland), who was last year elected a Fellow of the Royal Society of NZ, has now been elected a Fellow of the American Statistical Association (FASA). This is a rare honour. Alastair Scott and Chris Wild are the only two people based in New Zealand to be so elected.

National Tertiary Teaching Excellence Awards

Dr Rachel Fewster (pictured below) from the University of Auckland's Department of Statistics was one of only 10 teachers honoured at the national Tertiary Teaching Excellence Awards at Parliament.

Rachel is a senior lecturer in the Department of Statistics

and has been teaching at the University for 10 years. She received the award in recognition of her innovative, enthusiastic, and highly successful teaching methods. She is widely respected by students and peers for her ability to make statistics accessible and understood by a wide range of people, using memorable real-world examples.

Rachel concentrated on Stage One statistics courses during her first two years at the University and later went on to teach Stage Two and Three papers. As part of her work she redesigned some of the courses, and they became so popular that enrolments increased more than threefold.

The Tertiary Teaching Excellence Award is a real tribute to the mentorship I've had from my colleagues," she says. "The Stage One team (at the University of Auckland) won one of the first Tertiary Teaching Excellence Awards in 2003, and my own prize is a very tangible example of how they have propagated their teaching approach in the next generation of lecturers."

The Tertiary Teaching Excellence Awards, established by the Government in 2001, are administered and managed by Ako Aotearoa – The National Centre for Tertiary Teaching Excellence. They recognise and encourage excellence in tertiary teaching, and reward teaching practices that are student-focused and committed to promoting effective learning. Read the full article at www.auckland.ac.nz/uoa/home/about/news-events-and-notices/news/template/news_item.jsp?cid=186582

Excerpt from University of Auckland Media Release

Useful Links

Since we have such a large number of young and student statisticians new to the NZSA this year I thought it might be useful to include a list of websites, blogs and emailing lists to which practicing and academic statisticians may refer and subscribe. That is things that include useful details such as upcoming conferences, job advertisements, statistics employers, departments, societies, and journals. Also theoretical and practical discussions on a range of statistical issues, for example on software support mailing lists. This brings the statistics community to your laptop!

anzstat is a mailing list which reaches people in Australia, New Zealand and Internationally.

allstat is a UK based mailing list advertising jobs, courses and conferences.

R, GenStat, SAS all have dedicated software support lists, R and GenStat in particular often contain interesting discussions.

FIB http://blogs.mbs.edu/fishing-in-the-bay/

Conferences http://www.conferencealerts.com/statistics.htm

NZSA Homepage www.nzsa.rsnz.org

SSAI Homepage www.statsoc.org.au

International Biometric Society www.tibs.org

Portal for statistical science www.statsci.org

These and many more at http://nzsa.rsnz.org/links.shtml

New members

A warm welcome to new members who have joined since March 2009, taking our current membership to 419.

Regular members: Verina Yuan, Eleanor Guzman-Posadas, Finlay Thompson, Vladimir Obolonkin, Gemma Leman, James Degnan, Andrew Ferguson, Paul Smith, Pip Arnold, Irene David, Elenita Castillo, Stefanka Chukova, Ryan You, Shirley Wu, Nokuthaba Sibanda, Sophie Mormede, Peter McGinty, Yuichi Hirose, Ian Doonan, Miranda Devlin, Claudia Kirch, Aloka Bhattacharya, Chen Chen, Eleisha Jewell, Anna Lin, Jiale Liu, Reuben Kendall, John Bryant, Frances Krsinich.

Student members: Erika Ramirez Tunjo, Xin Zhao, Amanda Gibson, James Dawber, Xiangyin Chen, Jiaxu (Jimmy) Zeng, Brigid Betz-Stablein, Anna MacDonald, Aghababaei Jazi Mansour, Xiaomei Li, HerGuan Teo, Hinrich Kozik, Tilman Davies, Muhammed Nafees Anwar, Ting Wang, Marissa Isidro, Sarojinie Fernando, Tian Mao, Wa Wrathall, Penny Bilton, Katharina Parry, Lisa Lankshear, Shaochuan Lu, Chew-Seng Chee, Keng Hao (Danny) Chang, Lisa Woods, Simon Anastasiadis, Aleisha Meade, Alethea Rea, Sima Rouhollahi, Clint Jowett, Christopher Ball, Olivia Dench, Huitian Xue.

Join the NZSA

A membership application / change of address form is available at http://nzsa.rsnz.org/form.php

NZSA Membership rates

Given rates apply from April 2009 - March 2010 and are in NZ$.

	NZ	Overseas
Ordinary	80	85
Student or Retired	40	45

ANZJS Corner

The NZSA Conference recently provided a useful opportunity for general discussion of the journal. Roger Littlejohn who chairs the NZSA subcommittee for ANZJS commented on finances. Murray Jorgensen spoke about future publishing models. Sue Wilkins, who is Publishing Operations Manager at the Royal Society of New Zealand spoke about the changing journal environment internationally, the RSNZ's experience with its own journals, and her thoughts on issues facing RSNZ constituent societies like ours that publish journals. I spoke on editorial issues.

The session was very useful, if short. The journal finances (which are separate from those of NZSA and the Statistical Society of Australia) look healthy; the bulk of the journal income is generated through non-member subscriptions particularly from libraries. Open access publication models were discussed, but both Sue and Murray mentioned (wisely in the view of the editors) that there still needed to be an income stream, and page charges might be difficult to avoid under this model. On behalf of the editors, I commented that expanding the workload for editors was not realistic and that, if a new publishing model was chosen, planning to manage the transition while still publishing the journal regularly would be imperative.

The consensus, both from the speakers and the participants, was that making major changes in publishing mode or publisher at this stage were not warranted, although a watching brief should be kept as the international publishing arena is changing rapidly.

The Editorial team remains Mervyn Silvapulle, Jeff Wood, Ken Russell and me. Richard Penny has very recently been appointed as Book Review Editor. We are currently looking for an Applications Editor to replace Jeff Wood at the end of 2009 – if you are interested please contact me. During 2008/2009 ANZJS made progress towards adopting the electronic Manuscript Central / ScholarOne system to handle papers submitted to the journal. This will significantly improve the way papers are handled. Most international journals use similar software for managing papers. We expect that by next year, papers will be submitted to ANZJS by uploading pdf versions online. In the interim, submissions are via anzjs@statsoc.org.au. The current submission system is regrettably not entirely reliable, so if you do not get acknowledgement of receipt for your paper in the week following submission, please email me direct at s.j.haslett@massey.ac.nz and ask for a status report. If I am not travelling, I will endeavour to reply the same day.

The Impact Factor of Australian & New Zealand Journal of Statistics has risen significantly from 0.373 to 0.650 (ISI Journal Citation Reports, 2008). The Immediacy Index also increased from 0.138 to 0.259, which indicates that (on average) a good portion of the articles are cited in the same year they are published. We are only too well aware that measures such as Impact Factors alone are inadequate to assess the quality of a journal, that they are subject to fluctuation, and that they can depend on whether key papers are included in the time window. Nevertheless, we are pleased that these figures are so favourable to ANZJS.

The number of consortia libraries with paid access to the Journal increased by 7% during the year, and the Table of Content alert registrants increased by 15%. The number of downloads has also increased significantly. These figures all point to a pleasing set of improvements.

The journal has a large number of papers already accepted for publication. The volume for 2009 has already been finalised. Nevertheless, the ANZJS Editors would like to encourage all members to submit original papers in any of the following four categories: Applications, Theory and Methods, Reviews, and Historical and General Interest.

Stephen Haslett
Managing Editor, ANZJS
anzjs@statsoc.org.au

Speakers at the ANZJS discussion, from left to right: Murray Jorgensen, Sue Wilkins, Roger Littlejohn, Ian Westbrooke and Stephen Haslett.

Focus on Education

Statistics Education News

Congratulations to John Harraway on his election to President-Elect for the International Association of Statistical Education (IASE).

John (pictured right) is continuing the tradition of New Zealanders to be involved in IASE at the highest level.

International News

USCOTS 2009 – United States Conference on Teaching Statistics 25-27 June 2009, Ohio State University. This conference focused on undergraduate level statistics education, targeting statistics teachers. Chris Wild gave a well-received plenary talk on teaching inferential reasoning using new dynamic visualizations of conceptualizing sampling variability and he also gave a workshop about teaching statistical inference in schools. Matt Regan and Wayne Stewart also attended. Allan Rossman and Beth Chance (Cal Poly) ran a three-day workshop before the conference to introduce people to their innovative teaching of inference to undergraduate students. See: www.causeweb.org/uscots/

The Sixth International Forum on Statistical Reasoning, Thinking and Literacy. This Forum was held in Brisbane July 10-16, 2009. The topic under study was the role of context and evidence in informal inferential reasoning. Chris Wild was the plenary speaker. Maxine Pfannkuch and Pip Arnold presented.

Sixth IASE Satellite Conference, South Africa, 14-15 August 2009. This conference was held before the ISI-57 Conference. The theme of the conference was "Next steps in Statistics Education, with a focus on tertiary statistics teaching." John Harraway presented an update on the videos developed with the help of the Campbell Fund and now available on the website www.maths.otago.ac.nz/video/statistics. One university in South Africa is about to trial the website. Sharleen Forbes also spoke on the "Creation and evaluation of a workplace based certificate in official statistics for government policy makers".

ISI-57 (now to be known as World Statistics Congresses) and IASE associated activities was held in South Africa, August 2009. Sharleen Forbes gave a presentation on NZ CensusAtSchool as a classroom resource for statistics teachers. The ISLP activities, competition finals and presentations were a highlight of ISI-57 and a major achievement for Juana Sanchez and her helpers. The list of international winners and phase 2 winners of the International Statistical Literacy Competition may be found on the ISLP website: http://www.stat.auckland.ac.nz/~iase/islp/

The Eighth International Conference on Teaching Statistics will be held in Ljubljana, Slovenia, 11-16 July, 2010. John Harraway (Otago University) is Chair of the International Programme committee and John Shanks is webmaster, so Otago is really running the show. There is a stunning list of plenary speakers for this conference (Hans Rosling, Gerd Gigerenzer, Cliff Konold, Jessica Utts, Anuska Ferligoj) and a plenary panel coordinated by Chris Wild. The "invited paper" sessions have now closed but it is still possible to offer a "contributed paper". For more information see: http://icots8.org/

Local News

CensusAtSchool Project. This project, sponsored by the Department of Statistics of The University of Auckland, Statistics New Zealand, and the Ministry of Education, was launched on March 3, 2009. The project is directed by Rachel Cunliffe and aims to give 10 to 18 year-old students the experience of participating in a census. Data collection for 2009 is proceeding throughout the year. Pip Arnold is running workshops for teachers on using the CensusAtSchool data throughout New Zealand. The launch of a new sampling analysis tool, designed by Chris Wild and developed with Stephen Cope, is imminent. For a preview visit: http://www.censusatschool.org.nz/data-viewer

NZSA Conference Education Afternoon, Victoria University On the 3rd September 2009, some teachers from Wellington, Palmerston North, and Christchurch attended a strand of the conference organized by Mike Camden, which focused specifically on statistics education in secondary and primary schools.

Statistics Teachers Day, 24 November 2009, Auckland. Preparations for this annual day run jointly by the Department of Statistics, The University of Auckland and the Auckland Mathematics Association are well under way. The theme of the day is *Building students' inferential reasoning*.

Maxine Pfannkuch

NZSA Education Committee

We're very pleased that David Vere-Jones has been honoured by NZSA with the Campbell Award. David has taken key actions for statistical education both internationally and within NZ. He was part of the foundation of the International Association for Statistical Education, had a lead role in setting up the ground-breaking Bursaries Maths with Stats course, and has been a member of this committee for much of its history.

Our main focus since the last newsletter has been the Achievement Standards for NCEA. These are being re-created to match the shiny new NZ Curriculum. Example tasks are being written too. We're lucky that the Ministry-funded writing team and our own committee have an intersection (Pip Arnold & David Phillipps). There are thorny conceptual and textual issues, like how you briefly define what variables are sensible in a scatterplot and regression situation.

We've been concerned also about the national standards for numeracy and literacy (primary years). We've responded to the initial draft, recommending a strengthening of the statistics in line with what the Curriculum already says.

The NZ Association of Maths Teachers has its 11th biennial conference, 'Pi in the Sky', in Palmerston North, around the end of September. The NZSA sponsored speaker is Cliff Konold (Uni of Massachusetts and an author of The TinkerPlots software: it is well worth a google). Several committee members will be there running workshops.

Thanks to the VUW organisers of our recent conference (John Haywood and team) for including a statistics education afternoon of workshops and presentations. Some 25 teachers from the region participated.

John Harraway's second set of statistical projects with videos and datasets is now available: www.maths.otago.ac.nz/video/statistics. This too is worth a good look.

Mike Camden

Education Committee members who gave presentations at the conference, from left to right: Mike Camden, Maxine Pfannkuch, Tim Burgess, Anne Lawrence, Alasdair Noble

Local Scene

Massey University, Albany

Marti Anderson and colleague Russell Millar (University of Auckland) recently spent 3 months in the USA, working with freshwater ecologists in Washington and Oregon from the National Oceanic and Atmospheric Administration (NOAA). The focus of the research was to develop models for the natural coho salmon populations in Oregon's coastal stream systems using a large number of different databases and monitoring programmes. This work pushes the limits of several statistical tools and will be ongoing. Anderson also presented a seminar at the North American Regional Meeting of the International Environmetrics Society (TIES) in Corvallis, Oregon from 15-17 June 2009, entitled: 'Goldilocks and the three pools: do juvenile salmon choose habitats that are "just right"?'

In June Beatrix Jones visited the USA where she attended the meeting of the Western North American Region of the International Biometric Society held at Portland State University in Portland, Oregon and gave the talk "Statistical Methods for Genome Conformation Capture Data". She then spent a week with her collaborator Anthony Fiumera at Binghamton University in Binghamton, New York, looking at data from Drosophila (fruit flies) designed to test for association between male genotypes and increased reproductive success in wild flies. Finally, she attended a one day symposium in honour of her PhD advisor, Elizabeth Thompson, where she gave the talk "Parentage Analysis for Nest Structured Data". The symposium was in honour of Elizabeth's 60th birthday, and her election (last year) to the US National Academy of Sciences.

We have been pleased to welcome Howard Edwards back. He spent the first half of 2009 at the Northern Rivers University Department of Rural Health in Lismore NSW where he worked as consulting biostatistician on a range of research projects relating to population health and environmental epidemiology.

A workshop on Multivariate Analysis for Biologists, Ecologists and Environmental Scientists was hosted by IIMS from 1-12 June 2009. The two-week workshop was presented by Prof. Bob Clarke (Primer-E and Plymouth Marine Laboratory, UK) and Prof. Marti Anderson (Massey Albany), with special focus on the PRIMER v6 software for multivariate analysis and the associated PERMANOVA+ add-on package for analysing complex experimental designs. The workshop filled quickly with 35 participants from a host of international locations and was a great success. A similar workshop will likely be organised for 2010.

The statisticians have also been enjoying short informal talks by staff and post-grad students. These have been organized by Beatrix Jones who has successfully encouraged the PhD students (and some staff!) to talk about their work.

We have been pleased to welcome PhD student Oliver Hannaford who will be working with Marti Anderson, funded by her Marsden grant, and with co-supervisor Paul Rainey from the Institute for Natural Sciences. He will be investigating the relationship between environmental heterogeneity and beta diversity, including evolutionary mechanisms, and how these can be effectively modelled. We have also welcomed Insha Ullah who will be working on a PG Cert, including a research project on Graphical Models with Beatrix Jones, in preparation for entering the PhD program. His studies are funded by the Pakistani government.

And lastly congratulations to Mat Pawley who recently won a research contract (from the Ministry of Fisheries) to model populations of pipis (Paphies australis) at multiple North Island beaches.

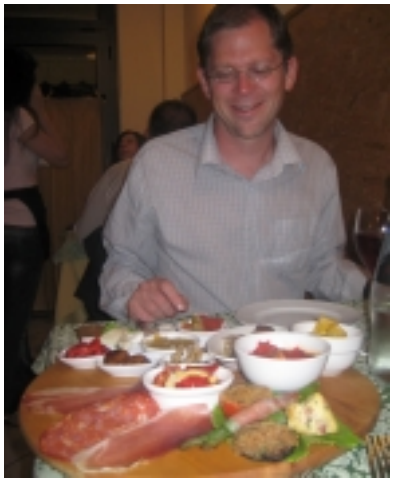
Marie Fitch

University of Otago

John Harraway spoke at the IASE Satellite Conference in Durban in August prior to the ISI and attended the ISI Conference in Durban afterwards. John has become President-elect of the International Association of Statistical Education. With Helen MacGillivray he attended a productive meeting with Jef Teugels, the incoming President of the ISI and the new Vice President, Jae C. Lee, concerning future links between the IASE and the other bodies of the ISI such as IAOS, IASC, IASS, ISBIS and the Bernoulli Society with respect to cooperating in the Statistics Education area.

In September, five of the statistics group (Richard Barker, Peter Dillingham, David Fletcher, Chris Fonnesbeck and Jamie Sanderlin) attended the EURING 2009 Analytical Meeting in September in Pescara, Italy. This is the main international meeting for those interested in modelling vertebrate populations using data from marked individuals, with biologists and statisticians getting together to share ideas. The conference was magnificently hosted by Fernando Spina, from the Italian Institute for Environmental Protection and Research (ISPRA), and was a great success, both scientifically and socially. David Fletcher and Peter Dillingham also appreciated the fact that Chris Fonnesbeck speaks fluent Italian, as it made sampling the local restaurants even more enjoyable.

Richard Barker, Lynette Barker, Anna-Claire Barker, Fernando Spina and Matthew Schofield enjoying a light lunch in a local nature reserve.



Peter Dillingham contemplating the first course in one of the many local restaurants

Lenette Grant

University of Auckland

We have welcomed several visitors and new staff to the department recently. Nick Shears joined us as a postdoctoral fellow, strengthening links between Statistics and the Leigh Marine laboratory. Nick is an Auckland graduate in marine science, and has recently completed a post-doc at the University of California, Santa Barbara.

Karen McDonald is our new department manager, joining Alexandra Miliotis and Nancy Wong in the Stats front office. Karen was quick to spot that, behind the undemonstrative exteriors, we have a department full of would-be statistical glamour models. In no time she had us posing for the professionals to create a gallery of promotional posters. Visitors to the department are sure to be most impressed at the results now adorning our walls - or if not they will be quickly escorted out.

Professor Bruce Lindsay from Penn State University is visiting for this semester, courtesy of a Distinguished Visitor Award led by Yong Wang. Bruce is internationally known for his work on mixture models. Yong will make a return visit to Penn State next year. Meanwhile, Yong's own Marsden-funded project on mixture models has gained its second consecutive student prize at the NZSA conference, this year by MSc student Keng-Hao Chang who won 3rd place against a stiff field of competition.

Professor David Matthews from the University of Waterloo is also visiting the department until June 2010, working with Chris Wild, and Professor Claudia Kirch of the Technical University of Kaiserslautern has been visiting Renate Meyer during September.

Huge congratulations to Chris Wild for being elected a Fellow of the American Statistical Association in April. Chris is only the second statistical Fellow in New Zealand. He has been zipping all over the place giving invited plenaries, including the Presidential Invited Address at the Statistical Society of Canada conference ("Building the Pyramids"), a Keynote Address at the US Conference on Teaching Statistics ("Early Statistical Inferences: The Eyes Have It"), and the Keynote at the 6th International Research Forum on Statistical Reasoning, Thinking & Learning in Brisbane ("Putting 'Context' in Context"). He is now said to be a strong contender for the International Catchy Talk Title Award for 2009.

Sharon Browning and Brian Browning are co-authors on a major international study recently published in Nature Genetics, which used a genome-wide association study to identify susceptibility to multiple sclerosis. Brian Browning is also PI for a substantial three-year grant from the US National Institute of Health Human Genome Project, entitled 'Improving genotype accuracy and haplotypic analysis for genome-wide studies'.

Congratulations to our latest PhD graduate, Dr Arier Lee, for her work on random effects models. On the topic of graduating from our department - we are currently creating a contact base for University of Auckland Statistics alumni. If that means you, please contact Karen McDonald at k.mcdonald@auckland.ac.nz for information.

Not content with posing for promotional posters, the department's irrepressible media presence continues. David Scott appeared on TV3, dispensing tips for winning June's $35 million Biggest Big Wednesday jackpot of all time. The video can be found by googling "Ali Ikram Big Wednesday", but it seems that David's strategies were unsuccessful given that he is still coming to work. David's probabilistic analysis was supplemented by Ali Ikram's executive summary, namely, 'You've got stuff-all chance of winning'.

Rachel Fewster

Department of Conservation

Winter has been a busy time for Ian Westbrooke and Maheswaran Rohan, the two statisticians at DOC, with lots of training while DOC staff are less busy with field work.

We've presented a new one-day Population Modelling workshop in three centres, with three in the northern ones to go, covering deterministic matrix models, mostly Leslie matrices. We've also taught two modules of the 3 day "Statistical Modelling using R" (covering linear models and GLMs), and two of "Analysis of repeated measures using R" (mostly mixed models). We recently changed the stats modelling course to run almost entirely in R Commander - which provides DOC science and technical staff a more user-friendly interface, and have also been presenting a short workshop on R Commander for staff with familiarity or interest in R. Our next major project is to develop a practical sampling design course for conservation studies and monitoring.

Dorothee Hodapp and Rosamund Westbrooke in the Eglinton

We both enjoyed the NZSA conference in Wellington, and especially Matt Wand's semi-parametric regression workshop. Ian organised the session on ANZJS, and hopefully members will now be thinking a bit more about where our journal is heading.

We are now gearing up for a last round of training during October, plus Rohan has been asked to present a seminar at University of Otago Christchurch. And Ian is planning for, and writing a paper for ICOTS in Slovenia next July.

We're maintaining links with universities too - with Rohan presenting at Massey's Palmy Stats day late last year; and Ian supervising or providing projects for honours students at Canterbury and Victoria with Jennifer Brown and Ivy Liu. Last December, Ian hosted Doro Hodapp from Otago University for a placement from a graduate applied stats course. Doro assisted with a study of skink monitoring in Fiordland's Eglinton Valley - what a terrible place to have to spend a week! The resulting paper is coming out shortly in Applied Herpetology. Plus Ian has been doing a few lectures at Canterbury.

Ian Westbrooke

Victoria University of Wellington

Things have been buzzing along nicely in the School of Mathematics, Statistics and Operations Research - we are now well into our second half year, following our creation at the start of 2009. Among other things, the MSOR Colloquia series, organised by Geoff Whittle to celebrate the new School, has been going really well - the talks have all been very well attended and well received. So far two of the talks have been by mathematicians (Rod Downey and Dillon Mayhew) and three by Statistics or Operations Research people (Richard Arnold, Mark Johnston and Estate Khmaladze). More information about past and future MSOR Colloquia is available from: http://msor.victoria.ac.nz/Main/MSORColloquia

Hot on the heels of the School's first successful PhD completion (in Statistics, awarded to Thomas Suesse, supervised by Ivy Liu and reported in the last newsletter) comes Shaochuan Lu, who was supervised by David Vere-Jones and David Harte. Shaochuan's thesis was entitled "Extensions of Markov Modulated Poisson Processes and Their Applications to Deep Earthquakes". Congratulations Shaochuan! Some further student news that definitely also deserves congratulations is that Vidette McGregor had a baby girl, Sophia Louise, on Sunday 19 September. Due date had been 9 September, and Sophia was a big girl when she finally arrived - well worth the wait and the whole family are doing fine, which is fantastic.

Estate Khmaladze has recently had a sole-authored volume "Statistical Methods for Demography and Life Insurance" published in Moscow. Mark Johnston is enjoying himself on sabbatical in the UK at present, where he has been since mid-year. Mark is working with Chris Potts at the University of Southampton on combinatorial optimisation problems. John Haywood had a very pleasant trip south to Dunedin in mid-May to give a seminar, "Memoryless reigns of the 'Sons of Heaven': exponential rule lengths revealed and explained". Quite soon after that, Bhramar Mukherjee made a much longer trip south, coming from the University of Michigan to visit Ivy Liu for 10 days. While she was here, Bhramar worked with Ivy and with Yuichi Hirose, and several of us went out for a very enjoyable dinner.

In June Stefanka Chukova and Richard Arnold appeared on various radio and TV news shows and in The Dominion Post newspaper, regarding the chances of winning the Big Wednesday $35M jackpot. This generated a lot of national interest in probability. Also in June, Nokuthaba Sibanda contributed to the School's

annual outreach session for high-school students, which was attended by students from all over the Wellington region. There were other speakers talking on particular mathematical topics, while Nokuthaba talked about various applications of statistical methods.

As noted prominently in April's newsletter, the School hosted the 60th Annual Conference of the New Zealand Statistical Association on 2-3 September 2009, with John Haywood the Conference Chair. Things seemed to go very well, according to various anecdotal feedback received, and there were numerous photos taken by Harold Henderson and Rod Ball (among others!). A further report is given elsewhere in this Newsletter.

In addition to an invited plenary talk at the NZSA Conference soon after he arrived, Vijay Nair remained in Wellington for another 10 days, as the 2009 Shayle Searle Visiting Fellow in Statistics at Victoria University. During that time Professor Nair interacted with several staff and graduate students and also gave two public lectures: a Wellington Statistics Group talk and a Mathematics, Statistics and Operations Research seminar. Vijay's visit to VUW was organised by Stefanka Chukova.

Estate Khmaladze is heading the organisation of a Workshop on Probability Theory and Mathematical Statistics, to be held at the Kelburn Campus of Victoria University of Wellington on Tuesday 3 November 2009. There are no costs associated with attending or presenting at the workshop. Estate and David Vere-Jones make up the Programme Committee and that programme is still under development: submissions are very welcome. Those interested in presenting or attending should contact Estate Khmaladze (Estate.Khmaladze@msor.vuw.ac.nz) before 20th October. The workshop website will be updated as the programme is developed and final details are confirmed: http://msor.victoria.ac.nz/Events/ProbabilityWorkshop

One final thing that should be noted somewhere, so here it is - the School of Mathematics, Statistics and Operations Research's crack Laser Force strike team comprehensively vanquished (3-0) a team from Politics and International Relations, on Friday 12 June. In a hot and smoky battle we easily triumphed, a fact that we can attribute (with some suitable accommodation of statistical uncertainty) to the fact that we had some women on our team whereas Politics did not, and we had our Head of School (Megan Clark) prepared to enter into the fray, leading by example. The battle was a good natured challenge that grew out of the TV1-TV3 'rival' 2008 election-night coverage, with our own Richard Arnold calling the result (correctly and very early!) for Television New Zealand (TV1).

John Haywood

University of Canterbury

After an absence of a decade, readers will be overjoyed or dismayed to find that Peter Smith has returned to reporting local news, this time from the University of Canterbury. So what is new in Christchurch? Well, it's been a beautiful sunny September - good news for all parents who spend hours of their lives standing by the side of rugby fields, netball courts, etc. On the Stats side, we have not been entirely idle.

Jennifer is now Head of Department for the next 5 years, and thus completes the trio of all three joint mathematics and statistics departments at NZ Universities being lead by statisticians. Just prior to becoming Head she spent 2 months in Wyoming working with Tim Robinson on modelling longitudinal data. She also visited a special reserve in the South of France and assisted in designing an environmental monitoring programme. She then visited Norway to work with Michael Chappell (former PhD student) on clustering algorithms for detecting patterns from MRI images of brains.

Irene David is now Director of Teaching for Tutors and recently gave a talk at the NZSA Conference on the 100 level statistics programme at Canterbury. Teaching is very much on our minds at the moment with a University wide revamp of courses towards a consolidated 15 point, single semester approach. This has required a huge effort from all. Happily oblivious to all of this is Marco Reale, somewhere in Italy with a graphical model and an espresso. Hands up who is not envious. Raaz continues to stimulate the students with his innovative approaches and is currently showing episodes of the Numb3rs TV show, complete with the mathematical and statistical background to the episodes. He has also recently worked with Statistics NZ on "imputation variance estimation for Statistics NZ's accommodation occupancy survey." This work was presented at the NZSA conference. James Degnan was another speaker at the conference and he is currently working with two visitors to the Department, Bjarki Eldon from the University of Oxford and John Rhodes from the University of Alaska.

Recent student successes include Xin Zhao who won the student prize at MODSIM '09 in Cairns. Xin is working with Carl Scarrott on extreme value GARCH modelling with Bayesian inference. The group welcomes Abdulla Firag a Postdoctoral Fellow working on random matrix theory with Peter Smith. Abdulla and Peter recently presented a paper at the International Conference on Communications in Dresden. Their work is also partially supported by a new research contract with Intel.

Peter Smith

Plant & Food Research

The wind of reorganisation swept through Plant & Food, but now the dust has settled, we are still together as one team of 11 biometricians spread across 5 sites, with Nihal de Silva and Ruth Butler as co-leaders. Organisationally, we are placed in the Systems Modelling group of the Sustainable Production science portfolio, although as before the team members work across all science portfolios. The other two teams in the Systems Modelling group are the Modelling, and Production Footprints, forming a major cluster of quantitative capability within the institute.

Ruth Butler with husband Ron van Toor at her graduation

Meanwhile, Ruth Butler was awarded the Doctor of Statistics degree from Reading University (UK) in June. This is a new degree at the same level as a PhD; Ruth is the first candidate to achieve the degree. It is a modular degree, designed to be done by practising statisticians, focusing on statistical and other work relevant to their professional role, whilst also including the traditional research components of a doctoral degree. Her major project focused on 'An exploration of the statistical consequences of sub-sampling for species identification', although along the way she also looked at quantitative polymerase chain reaction estimates, survival analysis, and sampling compost.

Duncan Hedderley

Massey University, Turitea

Congratulations to Alasdair Noble on his promotion to Senior Lecturer, and to PhD students Ting Wang and Tilman Davies who shared the prize for Best Student Talk at the NZSA Conference in Wellington.

Another PhD student has arrived. Armando Rodado will be working with Mark Bebbington on "Bayesian Approaches to Time-Varying Volcanic Hazard Estimation", with funding from FRST, EQC and GNS. Armando originates from Colombia, so we are hoping he will strengthen the Institute indoor soccer squad in their on-going battle with the School of Engineering and Advanced Technology.

Martin Hazelton has a visitor, Kathy Sanders, from the University of Western Australia. Kathy is a biologist and will be working with Martin on hierarchical linear models for the analysis of the relationship between psychological stress, energy balance and female reproductive function.

Mansour Aghababaei Jazi, a PhD student at the University of Isfahan in Iran, has returned to Iran after visiting Chin Diew Lai for six months.

Chin Diew Lai accepted an invitation to the 6th St Petersburg Workshop on Simulation held in St Petersburg, Russia, during June 27 - July 3, to give an invited talk. The conference was attended by delegates from about 35 countries, mainly from Europe and the USA. He reports that he thoroughly enjoyed the conference and got to know several delegates well. St Petersburg is certainly an interesting and beautiful city with many historical sites, but unfortunately he only managed to see a few.

Doug Stirling is still on sabbatical at the University of Reading in the UK, until the end of the year. He is currently writing a CAST e-book about the design and analysis of agricultural experiments. This project is partially funded from a Reading University contract to improve the statistical training of agriculture students in East Africa.

Geoff Jones spent most of September in the UK, first attending the RSS Conference in Edinburgh and then visiting Dimitris Ballas at the University of Sheffield.

We are starting to organise the conference for 2010, scheduled for June 29 to July 1. The conference website will be fully working soon, with access from the NZSA site. We already have a number of international speakers, one of whom will be acting as the NZSA visiting speaker and will tour the main centres.

Geoff Jones

AgResearch

Well, the proposed merger between AgResearch and Lincoln University (which we mentioned in the last newsletter) never got off the ground due to too many hurdles being encountered in the investigation process. Instead, it has been decided that a "partnership model" is the one that will be pursued. The idea of a specialist, research-intensive NZ university focused on the land-based industries is perhaps one ahead of its time. So it's business as usual for the statisticians!

Chikako van Koten relocated from our Invermay centre to Lincoln permanently at the end of July and is now well-conditioned (!?) into the warmer and much drier weather of Canterbury.

Ken Dodds (Invermay) helped organise the 5th Molecular Mapping Workshop (MapNet) meeting at the end of August and also ran a short course with approximately 35 participants on Quantitative Analysis of Genetic Linkage preceding the meeting. (See https://mapnet.agresearch.co.nz/mediawiki/index.php/Molecular_Mapping_Workshop_2009).

John Koolaard and Zaneta Park, along with bioinformatician Nauman Maqbool, attended the 6th Winter School in Mathematical and Computational Biology at the University of Queensland in early July. The series of winter schools is organised by the ARC Centre of Excellence in Bioinformatics and Institute for Molecular Bioscience. The School is designed to introduce mathematical and computational biology and bioinformatics to advanced undergraduate and postgraduate students, postdoctoral researchers and others working in the fields of mathematics, statistics, computer science, information technology, complex systems analysis, and biological, chemical and medical sciences and engineering. (See http://bioinformatics.org.au/ws09/index.html)

A number of our stats group (Harold Henderson, Roger Littlejohn, Martin Upsdell, Chikako van Koten, Zaneta Park, Dongwen Luo and John Koolaard) attended Matt Wand's useful short course on semi-parametric regression just before the recent NZSA conference. The Taupo Australasian "Biometrics on the Lake" Conference in Nov/Dec should see another good turnout of our lot.

John Koolaard

Wellington Statistics Group

Members of the Wellington Statistics Group (WSG), a local group of the New Zealand Statistical Association (NZSA), were involved recently in organising the NZSA 2009 Conference. A further report on that conference is given elsewhere in this Newsletter. In addition to the NZSA 2009 Conference, other talks given to WSG since the last NZSA newsletter was put together are:

8 September 2009: Vijay Nair, University of Michigan, USA. "Statistical Inverse Problems in Network Tomography and Monitoring Quality of Service Characteristics in Networks"

2 April 2009: Ross Ihaka, The University of Auckland and the R Foundation. "R: Past and Future History"

Further details (abstracts, etc) of these and all previous talks can be found on the NZSA Local Groups web page: http://nzsa.rsnz.org/local_groups.html. That web page also contains contact details for WSG, names of sponsors, and details of forthcoming talks. In addition, a link can be found there so that people can add or delete their names from the mailing list.

If anybody is visiting Wellington at a time coinciding with a talk, you are most welcome to attend. No registration or fee is required. We are also keen to receive offers of talks from people who have something they would like to present. Many individuals work in isolation from other statisticians and often have little opportunity to discuss their work with others. WSG aims to provide a forum for such people too.

We'd very much like to hear from anyone in the Wellington region who would be keen to take over the WSG Convenor's role from David Harte. Don't be shy!

Finally, we are grateful to all the WSG sponsors: Victoria University of Wellington, Statistics New Zealand, the Ministry of Social Development and Statistics Research Associates Ltd.

John Haywood

Scion (Forest Research)

We have just met our new biometrician Colleen Carlson who visited from Christchurch yesterday. Colleen started as a biometrician/modeller in Scion's Ilam branch on September the 7th. Colleen comes to us from South Africa via Virginia Polytechnic Institute and State University. She has a background in quantitative silviculture. At Virginia Tech she worked as a research associate for the Forest Nutrition Cooperative and before that she worked for forestry research companies and institutes in South Africa. She will be working initially on projects involving fire, weeds, and entomology and others that crop up. Colleen is joined in Christchurch by her husband and 5-year-old son.

Mark Kimberley is continuing work on estimating carbon sequestration, now in 'Kyoto forests'. These are new forests planted since 1990 that qualify to offset carbon emissions under the Kyoto protocol. This is where the 'money' is. The New Zealand government has committed to return to 1990 levels within the 2008-2013 period, otherwise we will have to pay to purchase carbon credits internationally. Models for wood growth and density (developed by Mark and colleagues at Scion) are being used to predict carbon sequestration over the next 5 years. We have done little or nothing so far to reduce emissions, in fact, agriculture, transport and industry have increased their emissions by around 25% since 1990, with agriculture contributing around 50% of the total. Calculations are ongoing but it's looking

promising that forestry may just balance the profligate excesses of these other sectors. However beyond 2013 when the Kyoto forests begin to be felled the carbon will be deemed to be re-emitted (under current rules), and newly planted trees will be re-absorbing carbon initially at a slower rate. Mark says that AgResearch needs to come up with some breakthroughs by then or it could cost billions.

Rod Ball attended the NZ Statistical Association annual conference in Wellington in September. Some of the highlights were talks by invited speakers Matt Wand, who introduced us to variational Bayesian methods, and Vijay Nair on statistical methods for industrial process using high dimensional data. Matt and co-authors, have been applying the method to for Bayesian non-linear regression models with some promising results (http://www.uow.edu.au/~mwand/evapap.pdf; ANZ J. Stat. 51(1) 2009 p33); although it seems that for any given problem work is needed to ascertain the accuracy of the approximation(s).

From left to right: Richard Penny, Vijay Nair and Rod Ball discuss the weather during the morning tea break on the final day of the NZSA conference

In the last couple of weeks Rod has been working on multi-trait versions of smoothing spline models for wood properties. The goal is to model the patterns of variation in wood properties within and between stems, and to decompose the variation into different strata, e.g. overall, site, tree, disc within tree, and ring within disc. It is important to model inter-trait correlations so that we can obtain realistic simulations from the joint distributions, conditional on sampled information.

The models, fitted using lme (nlme package in R by Pinheiro and Bates) include linear and spline terms in height and in ring within discs sampled at discrete heights. This is using our lmeSplines R package and other functions for a pdTensor 'pdMat class' (the method for extending lme by user-contributed variance structures) we have previously written to fit separable tensor product variance structures in lme. We have also modified lme to use the parameter values from a previous fit when using the update() method e.g. to re-fit a model with more iterations or a modified term. Surprisingly, it would just re-start from scratch with the default parameters.

We are also trying ASREML. lme4 is another possibility but currently lacks the facilities for the variance structures we need. Each package has some different problems we've experienced, some of which we have overcome, especially with lme which we have been working with for longer. ASREML (see article last newsletter) uses the average information matrix and sparse matrix methods so may be faster but we have yet to get all the terms we want working - it looks like we may need the new 'str' facility which enables a set of random effects to be associated with any given Z-matrix and variance structure among those available. Common error messages include singularities in the average information matrix with ASREML (particularly when using the 'unstructured' variance matrix for traits - probably because we need to find good initial values for all the unstructured terms), or errors like 'error in chol: singularity in leading minor of order 2' with lme when using the default 'nlminb' optimisation method. Interestingly when using lme with the old default optimiser 'optim' and the Nelder-Mead method, convergence albeit slow, is obtained for the same models. In the long run we may need to implement a Bayesian model based on these models which may mitigate some of the confounding and difficulties with maximum likelihood with so many parameters.

Rod Ball

The International Biometric Society Australasian Region will hold its biennial meeting from Sunday, 29 November - Thursday, 3 December 2009 at the Suncourt Hotel and Conference Centre on the lakefront in Taupo.

Go to the conference website at
http://www.biometrics.org.au/conferences.html

Programme

The scientific conference program will comprise a well-balanced mix of invited and contributed oral presentations as well as provide opportunity for networking, discussion and catching up with your biometric colleagues. The full programme will be available on the conference website soon. Abstracts have closed but you can still register for the conference and join the over 90 who have already registered. For full details go to biometrics.org.au/conferences.

Invited speakers

There is an impressive array of keynote and invited speakers:

Martin Bland, University of York
Thomas Lumley, University of Washington
Louise Ryan, CSIRO
Chris Triggs, University of Auckland
Ross Ihaka, University of Auckland
Kaye Basford, University of Queensland
Alison Smith, Wagga Wagga Agricultural Institute

Awards

Some financial assistance for student presenters is offered.

Prizes

Prizes will be awarded for the best talk and poster presented by a "young" statistician. The definition of "young" is at https://conference.fos.auckland.ac.nz/ibsar/awards.html.

Social Program

The social program is aimed to provide a welcome distraction from scientific talks but hopefully not from meeting other delegates and exploring some of what Taupo and its surrounds have to offer. There is a welcoming reception on Sunday evening, a young statisticians' gathering and dinner on Monday evening, social activities on Tuesday afternoon and the conference dinner on Wednesday evening.

Satellite Courses

Two conference satellite courses will be held in Auckland during the preceding week.


Satellite course presenters: Martin Bland and Thomas Lumley

Cluster Randomised Trials

Martin Bland
University of York, UK.
Wednesday - Thursday 25-26 November
City Campus, University of Auckland
http://www.stat.auckland.ac.nz/crt2009/

An R Workshop - Summer Fun with R

Thomas Lumley
University of Washington
Friday 27 November
9:30am - 4:30pm
Maths and Physics Building
University of Auckland
https://conference.fos.auckland.ac.nz/ibsar/shortCourses.html

Explore your data quickly with *STATISTICA*

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STATISTICA is a comprehensive, integrated data analysis, graphics, database management, and custom application system used for performing a wide range of statistical analysis, including running native R programs directly within.

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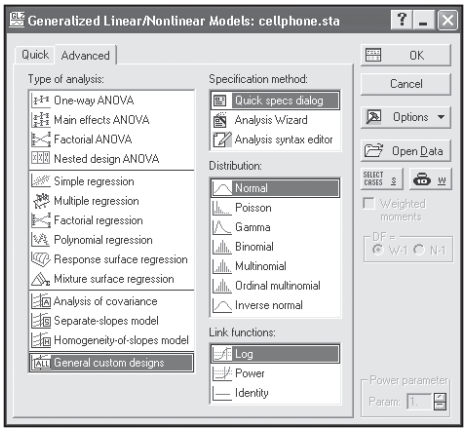
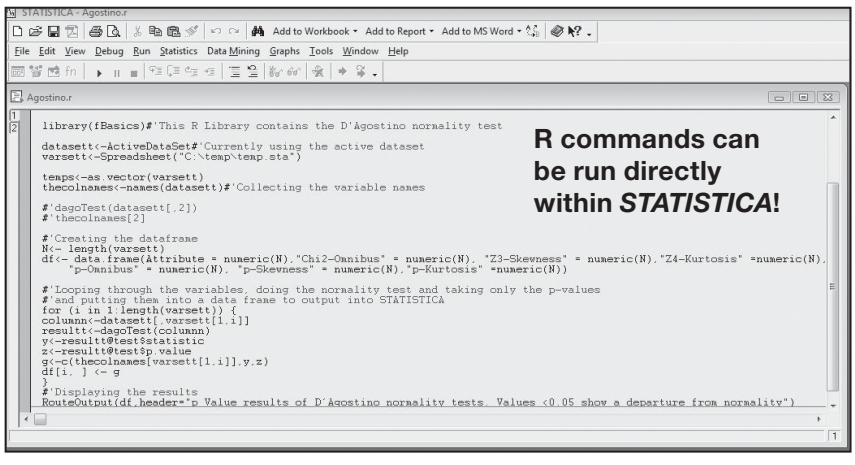


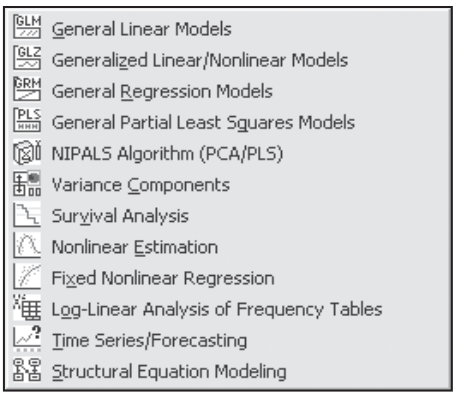
R Integration

R output can be retrieved as native *STATISTICA* spreadsheets and graphs, and managed via highly flexible *STATISTICA* Workbook containers.



Advanced Linear & Nonlinear Models

STATISTICA provides a wide array of the most advanced modelling and forecasting tools on the market, including automatic model selection facilities.



Data Mining

Uncover hidden trends, explain known patterns and predict the future using a comprehensive selection of data mining solutions with *STATISTICA's* icon-based, easy-to-use user interface. It features a selection of completely integrated, and automated, ready to deploy systems of specific data mining solutions for a wide variety of business applications. You can customise these systems at will.

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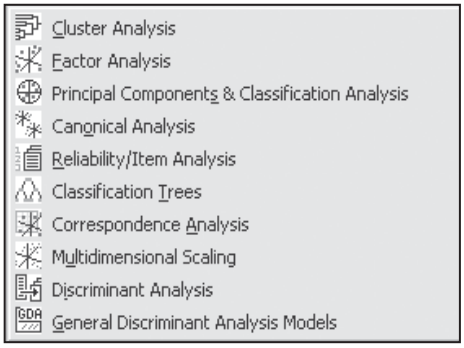
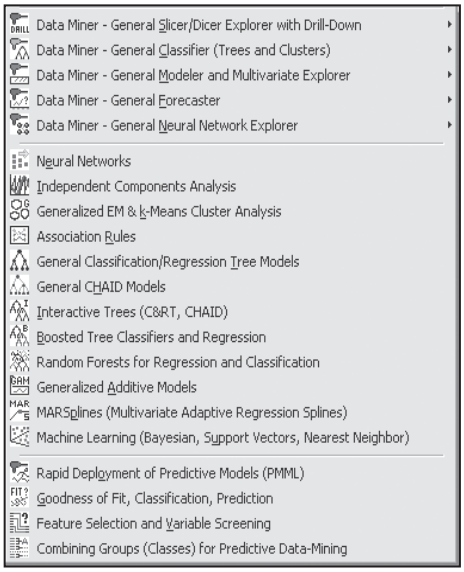
STATISTICA provides a broad selection of exploratory techniques for various types of data, with extensive, interactive visualisation tools.





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