

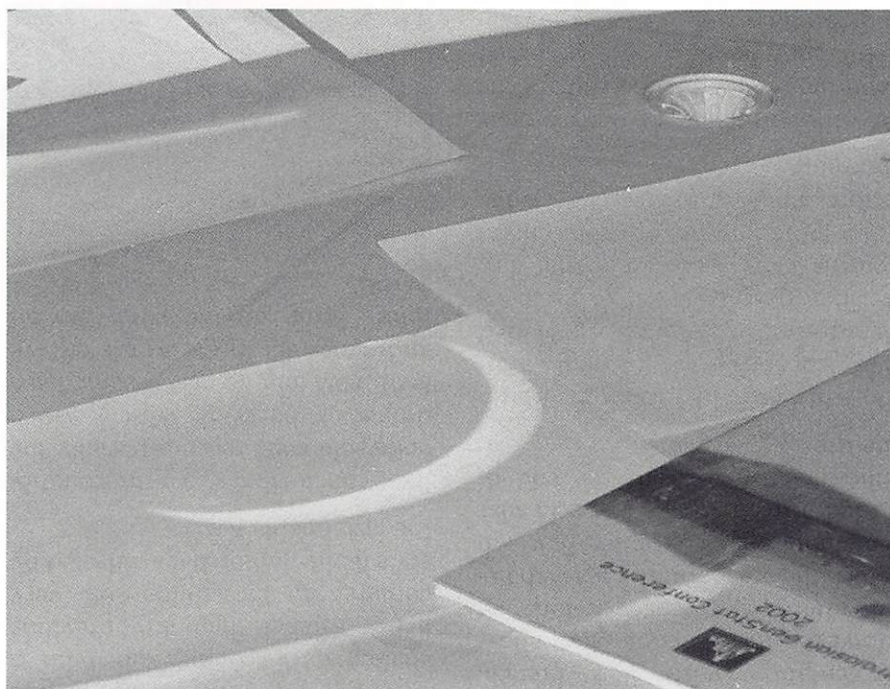


## Australasian GenStat Conference 2002

Local users of the GenStat statistical system meet every two years for a conference where the focus is very much on the application of statistics to real life problems and data. In 2002 it was Western Australia's turn to organise the conference. There were some misgivings about the

effect of this on the attendance, but there were 79 registrants, including quite a large contingent from New Zealand (11), as well as one each from Korea and the Netherlands and of course the GenStat team from the U.K (7). The Australian states contribution was ACT 4,

NSW 12, SA 11, QLD 13, VIC 9 and WA 9. (Warren Müller, a long time supporter of past GenStat conferences is recovering from major heart surgery, after being taken ill shortly before he was due to leave Canberra for Perth. Our best wishes and support go to Warren.)



*An eclipse of the sun occurred during the conference, and this image was captured by Professor Kim Byung-Soo of Yonsei University, South Korea.*

The meeting followed the well-tried format of two one day workshops in a capital city before retreating to a beach resort for a three day conference. The first workshop, led by Terry Speed assisted by Gordon Smyth and Natalie Thorne, was on "Statistics for Microarray Data Analysis", and the second workshop was on "Spatial Statistics for Environmental Scientists" led by Richard Webster supported by Sue Welham, both from Rothamsted Experimental Station in the U.K. We then decamped to the Abbey Beach Resort in Busselton in the south-west of WA. This provided proof of the maxim that in WA distances are always further than you think. On the map Busselton looks like a short spin from Perth. In fact the bus took nearly four hours on good roads.

The conference had a full program with about 40 papers and seven posters. Three of the invited speakers talked about genotype x environment interaction, and overall there was a strong emphasis on the application of statistics in agriculture. Our slave-driver, Mario

### In this issue

Editorial .....	3	Accreditation .....	4
Competition Results .....	3	Branch Reports .....	7
Member News .....	3	Conferences .....	20





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**DEADLINE FOR  
NEXT ISSUE:  
20 APRIL 2003**

## Australasian GenStat Conference '02

D'Antuono, aka the Troppo Bird, drove everybody so hard he ended up in hospital himself, but he was soon back with us as energetic as ever by finding a bug in GenStat BIPLLOT the night before his joint presentation with Bob French. However the schedule did allow an afternoon for excursions of which the most popular was whale-watching on Geographe Bay. An added attraction was a spectacular thunderstorm towards the end of the trip.

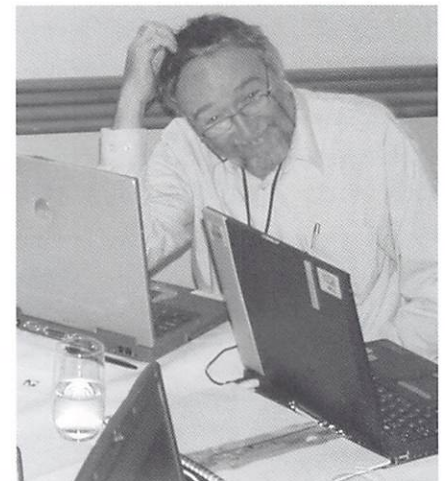
On the final morning Mario was conspicuously absent after overdosing on tablets, provided by the hospital to fix his back spasms/cramps earlier in the day. After suffering the afternoon/night before, he duly missed the Friday morning AGM at 7.45.

At the meeting Jane Speijers reported on the healthy state of the conference finances and discussed the formation of the Australasian GenStat Users Association Inc. It was becoming more and more difficult to organise the conference without some formal structure. The meeting duly endorsed the incorporation of the Association in WA, and elected were Brian Cullis, Chairman; Ross Cunningham, Vice-Chairman; Helen Nicol, Treasurer; Neil Coombes, Secretary; and Committee Members, Roger Payne,

Jane Speijers, Ruth Butler, Murray Hannah and Vivienne Doogan.

Although Mario was the most visible member, the conference committee as a whole did an excellent job. They rose to the challenge of coming up with a better satchel than any previous conference, by giving us very stylish blue laptop bags, selected by the fashionable Katia.

In conclusion, a thoroughly enjoyable conference especially the dinner at the WISE Winery which featured a line-up of star comedians and dancers!!! In the words of Nye John "Bring on the next GenStat party."



*Arthur Gilmour contemplates the intricacies of spatial data analysis.*

*Photo: Roger Payne*



*Participants return from whale-watching. Photo: Roger Payne*



## Editorial

The beginning of a new year is typically a time for resolutions: eat less, exercise more, spend more time with the children, and so on. Classical musicians often use a new year as an opportunity to think about anniversaries. Which composers would be having a 100th birthday or 200th birthday or 250th birthday this year? As it happens, 2003 is the 200th birthday of the French composer H. Berlioz, and many choirs and orchestras will be building this fact into their programs for the coming year.

I would like to suggest that statisticians could do a similar thing. A useful starting point is the St Andrews University History of Mathematics website <http://www.history.mcs.st-andrews.ac.uk/history/>

## Member News

### SSAI members receive ASA Award

*Amstat News* of October 2002 announced that Peter Hall and Don Poskitt of the Australian National University along with Brett Presnell of Florida University received the first 2002 Outstanding Statistical Application Award in recognition of their paper "A Functional Data-Analytic Approach to Signal Discrimination", published in the February 2001 issue of *Technometrics*. The paper provides an ingenious approach for real-time discrimination for signal detection. This work has had important applications in discriminating radar range profiles and will be important in such applications as examining proteomic spectral data as a means of detecting cancer.

Well done Peter and Don!

### SSAI member included in JASA Top Math Citations

As reported in another recent *Amstat News*, Iain M Johnstone

[index.html](#). It does include information on statisticians and a quick glance reveals that 2003 would be A.N. Kolmogorov's 100th birthday.

Musicians don't usually go further and look at the anniversary of particular pieces of music, but statisticians could do so with some possibly surprising results. What papers in your area were published 10 years ago? 25 years ago? 50 years ago? What impact have these papers had?

As always, do write and tell us what you come up with. There's another competition on which to sharpen those creative skills too. This issue also contains a report on the GenStat conference held in WA, along with the usual Branch reports.

is a professor of statistics and biostatistics at the University of California at Berkeley (on leave from Stanford University). His research interests include non-parametric function estimation, high dimensional data, and statistical uses of random matrix theory. One of Johnstone's papers, "Ideal spatial adaption by wavelet shrinkage," co-authored with David Donoho, was published in *Biometrika* in 1994, and has since received 300 citations. He was elected Fellow of the ASA in 1995.

## Competition results

Terry Neeman of Canberra writes

*I'm sending to you,  
Some statistical haiku.  
I hope you like it.*

which provides a nice introduction to the other offerings. Martin Caruso from WA sends

*Blue sky hue above  
Best linear unbiased hue  
The best estimates.*

And the following came from Geoff Riespreier

The Programmer

*Eyes fixed to the screen,  
Fingers poised above the keys,  
SAS code comes to life.*

The Statistician

*Measuring each plot,  
Comparing the evidence,  
The Data are all.*

The Clinician

*Blinded to treatment,  
Enveloped in equipoise,  
The p-value is all.*

This one from Carl O'Monty.

Estimators

*Horowitz-Thompson, BLUE,  
Maximum Likelihood too,  
OLS and GREG.*

And this refreshing burst from Jeremy Neeman.

The Statistician Poet (or Can't You Stop Counting Things and Just Enjoy Yourself??)

*Crispy clean white snow  
Tumbles from the gleaming heavens.  
How many snowflakes?*

## Competition

This time we are asking you to submit limericks on a statistical theme. Please email your contributions to the Editors by the copy deadline of 20 April 2003.

Here's one to get you started.

There once was a statistics professor  
Who muddled his greater and lesser  
Statistics, which led  
Him to claim BLUEs were red,  
Till he regressed upon his regressor!



# Accreditation

Since July 2002, the Committee has met 5 times and recommended accreditation for a total of 6 applicants - 4 for Accredited Statistician and 2 for Graduate Statistician. There are currently a further 6 applications under consideration.

The requirements for Graduate Statistician have now been changed so that an applicant needs only to have a Major in Statistics (or its equivalent), rather than an Honours degree in Statistics. This recognises the fact that full accreditation is available to Pass degree graduates with

suitable experience, but is not intended to imply that a Pass degree is "sufficient" to become a statistician - further learning, through on the job experience or formal study (and preferably both), is essential before a graduate, Pass or Honours, can qualify for full accreditation.

As an extension of this, and at the request of the Accreditation Committee, Central Council has set up a separate committee to look at Professional Development. We look forward to developments in that area.

The Committee has completed its

revision of the Re-accreditation document and this is ready to go. Those who were accredited in the first half of 1998 (and whose accreditation expires at the end of 2003) will receive this document soon, and it will be made available on the webpage.

The Committee is drawing up guidelines for how universities should present information if they wish to seek "accreditation of courses". These guidelines will be forwarded to Central Council for comment/approval.

*Richard Jarrett  
Chair, Accreditation Committee*

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Call us now on 1300 365 152 or visit our website at [www.member-advantage.com/ssai/insurance.htm](http://www.member-advantage.com/ssai/insurance.htm) for more details.

The image shows three overlapping insurance premium analysis reports. The top report is 'Trauma Cover Premium Analysis' with an example for a professional male aged 40. The middle report is 'Term Life Premium Analysis' with an example for a professional male aged 40. The bottom report is 'Income Protection Premium Analysis' with an example for a professional male aged 40. Each report includes a table of premium rates for different companies and terms.

Company	Annually	Monthly	Over 5 Years
Company 1	\$543.40	\$47.82	\$3,705
Company 2	\$549.13	\$48.96	\$3,120
Company 3	\$570.24	\$49.90	\$3,200
Company 4	\$587.04	\$52.83	\$3,219
Company 5	\$612.03	\$54.50	\$3,420
Company 6	\$626.24	\$55.77	\$3,543
Company 7	\$629.30	\$56.40	\$3,283
Company 8	\$653.95	\$59.30	\$3,464
Company 9	\$663.56	\$59.72	\$3,623
Company 10	\$711.48	\$62.25	\$3,923
Company 11	\$718.94	\$66.09	\$3,982
Company 12	\$782.49	\$70.43	\$4,311
Company 13	\$788.74	\$71.59	\$4,501
Company 14	\$971.13	\$81.94	\$5,382
Company 15	\$1,379.36	\$116.40	\$6,896



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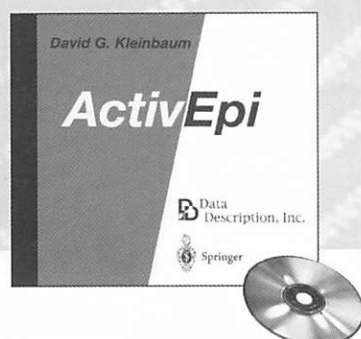
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D. G. Kleinbaum,

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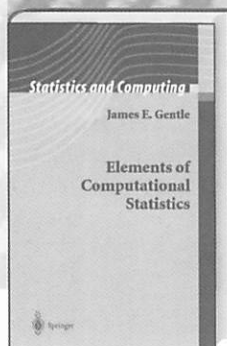
2003. CD-ROM in jewel case. € 74,95; sFr 135,00; £ 52,50 ISBN 0-387-14257-6

D. G. Kleinbaum, K. Sullivan, N. Barker

## ActivEpi Companion Textbook

Contains the content of the ActivEpi CD-ROM plus additional exercises and an appendix on computer packages.

2003. 528 p. Softcover € 39,95; sFr 68,50; £ 28,00 ISBN 0-387-95574-7



J. E. Gentle

## Elements of Computational Statistics

This book describes techniques used in computational statistics and considers some of the areas of applications, such as density estimation and model building, in which computationally intensive methods are useful. In computational statistics, computation is viewed as an instrument of discovery; the role of the computer is not just to store data, perform computations, and produce graphs and tables, but additionally to suggest to the scientist alternative models and theories.

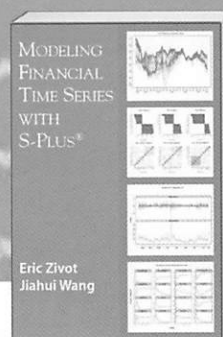
2002. XVIII, 420 p. 86 illus. (Statistics and Computing) Hardcover € 79,95; sFr 133,00; £ 56,00 ISBN 0-387-95489-9

H. Toutenburg *2nd Edition*

## Statistical Analysis of Designed Experiments

Unique in commencing with relatively simple statistical concepts and ideas found in most introductory statistical textbooks, this book goes on to cover more material useful for undergraduates and graduate in statistics and biostatistics.

2nd ed. 2002. XV, 500 p. (Springer Texts in Statistics) Hardcover € 79,95; sFr 133,00; £ 56,00 ISBN 0-387-98789-4



E. Zivot, J. Wang

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2003. XIX, 632 p. Softcover € 59,95; sFr 99,50; £ 42,00 ISBN 0-387-95549-6

L. Györfi, M. Kohler, A. Krzyzak, H. Walk

## A Distribution-Free Theory of Nonparametric Regression

The authors provide a systematic in-depth analysis of nonparametric regression with random design. The book covers almost all known estimates. The emphasis is on distribution-free properties of the estimates.

2002. XVI, 647 p. 86 illus. (Springer Series in Statistics) Hardcover € 89,95; sFr 149,50; £ 63,00 ISBN 0-387-95441-4

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# Branch Reports

## NEW SOUTH WALES

### October Meeting

Caro-Anne Badcock (Covance) and Ken Russell (University of Wollongong) wrestled with the problems and pleasures of the world of the statistical consultant, in a virtuoso display of tag-team powerpoint presentation. In the introductory phase of the bout we learned that Ken had been at Victoria University of Wellington in a statistical consulting unit which existed as early as 1979, re-confirming that in many important things (like the aged pension and women's suffrage) the NZers have shown great foresight. From there he moved via a state department of agriculture to the University of Wollongong, where he is now Head of the Statistical Consulting Unit, which provides a mostly non-commercial consulting service to academics and research students.

After a smooth interchange, Caro outlined her experience as she moved from Sydney Water via Royal North Shore Hospital to commercial solo consulting in her own practice and now with Covance, where she manages a team of eight statisticians involved in pharmaceutical industry consulting. Caro emphasised that the main differences between her role and Ken's lie in the business area: as a commercial consultant

she has always to be aware of the cost (and the profit) in providing a service. This was easier in a group practice such as Covance because there were well-developed models (e.g. based on the number of tables to be produced in an analysis) to assist in costing projects. For the solo consultant costing was much more difficult. Creeping changes in the specification of projects and the collection of overdue accounts were also more difficult for the soloist to handle. Against that, the soloist was less restricted by standard operating procedures (but also less protected by them).

Ken returned to the fray with some remarks about the professional aspects of consulting and how it differed from, say, what academics were usually expected to do. After quoting a remark of an (anonymous) colleague that consulting was just "like giving a tutorial," he pointed out that only rarely were consulting problems trivial: on the contrary, they were usually open-ended and ill-defined, did not admit to convenient assumptions (like normality) and had to be done to a deadline.

On the practice of consulting in the academic environment, he added that it was least common to be invited on to the project in the planning stage. He drew attention to the balance that

the academic consultant has to strike, especially when the client is a student, between providing helpful advice and not taking over. He stressed that it can be very difficult to get proper recognition for the consultant on publications. Statistical consultants are too often regarded as technicians rather than co-workers, and co-authorship was often not available, even though (or perhaps because) publications are extremely important to academic careers.

Both emphasised interpersonal communication, and Caro also emphasised the importance of networking between the academic and commercial arms of the profession.

Caro and Ken wrapped up their presentation with a reminder of the pleasures to be gathered from consulting. Ken referred to "advancing knowledge and the use of statistics," and Caro gave an example of a problem which required some lateral thinking to solve: how to obtain a "representative pool" of human subjects to use for a study of normal brain function. "Representative" had to mean for example that particular groups (e.g. based on age, socio-economic status or susceptibility to a hereditary disease) would not be over-represented in the pool. The study was to be conducted in several centres round the world and would involve a non-trivial commitment from the subject. Payment might attract subjects but would be likely to upset the socio-economic status balance. Perhaps pure altruism would be a good motivator? It was decided to approach the web-based support groups for relatives of victims of *accidental* brain injury. This turned out to be successful. To this correspondent this seemed a delightful example of the rewards of this sort of work: a useful outcome is obtained by providing an elegant solution to an unavoidable technical problem.



Ken Russell and Caro Badcock at the restaurant after the October meeting.

Alun Pope



## Branch Reports

### November meeting

The Awards for Postgraduate Excellence have become a highlight of the NSW Branch's calendar. They were introduced in 2000, at the instigation of Dr Frederick Osman. Each university in NSW is invited to nominate a postgraduate student to make a presentation on his or her research. These students make their presentations at the Branch's November meeting, which is followed by the Annual Dinner. As announced in the last Newsletter, the Branch has named these awards the J.B. Douglas Postgraduate Awards, in honour of Professor J.B. (Jim) Douglas. Jim was an innovator in many aspects of statistics and statistical education, and is a former President of the Branch and an Honorary Life member of the Society. Although nearing his 80th birthday, he still regularly attends meetings of the Branch.

The Postgraduate Awards are an excellent way to learn what research is being undertaken, and the attendance is always high, even though the presentations are made during working hours. This year about 40 people gathered to hear the following speakers:

Helen Armstrong (U of NSW): Multivariate Conditional Independence Models

Cecil Fonseca (U of Western

Sydney): Data Mining Algorithms for Mining Stock Market Data to Reduce Investor Risk

Petra Graham (U of Newcastle): Design Characteristics of the Control in Type 1 Censored Experiments

David Chan (AGSM): Adaptive Nonparametric Estimation of Mean and Variance Functions

Katrina Mather (U of Wollongong): Testing Equality of Corresponding Variances from Multiple Covariance Matrices

David Warton (Macquarie U): Testing Multi-Sample Hypotheses for Multivariate Abundance Data

Katherine Courtney (U of Sydney): On the Asymptotic Behaviour of Estimators for the Shape Parameter of the Negative Binomial Distribution.

The students are judged on the content and scientific quality of their talks, and on the clarity and presentation skills that they display. It's fairly demanding on them – and on the judges! This year, the judges were Des Nicholls (ANU), Kevin Price (BHP Steel) and John Rayner (U of Wollongong), and they had the proverbial difficult task. The result was a tie for first between Petra Graham and Katherine Courtney.

About 60 people (many of them

friends or former colleagues of Jim Douglas) attended the Annual Dinner, and a splendid time was had by all. We enjoyed a During Dinner address by Des Nicholls (Professor at the School of Finance and Applied Statistics, ANU) on the topic "The Medical Profession, Data Mining, Statistics and Accreditation". It is testimony to the excellence of Des's speech that there was no clinking of knives, plates or glasses to drown him out. The meal was followed by the presentations of awards by Jim Douglas himself, and then speeches by Eric Sowe (UNSW) and David Griffiths (U of Wollongong) on why Jim was being honoured. And lastly, a reply by Jim, in which he took a trip down memory lane and described some of the events that had shaped his life. You can find the speech (in PDF format) at [http://www.geocities.com/statsnsw/JBDouglas\\_Speech.pdf](http://www.geocities.com/statsnsw/JBDouglas_Speech.pdf)

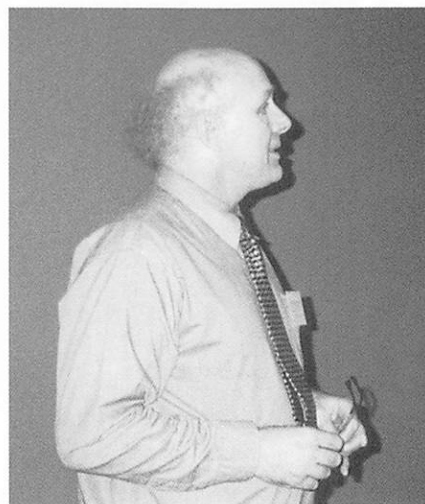
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Society members may recall the story in the May, 2002 Newsletter about the SCRA meeting held at the University of Wollongong in December, 2001, and featuring Professor C.R. Rao. Should you want a copy of the Proceedings of this Conference, you will find details at <http://www.wspc.com.sg/books/mathematics/5134.html>

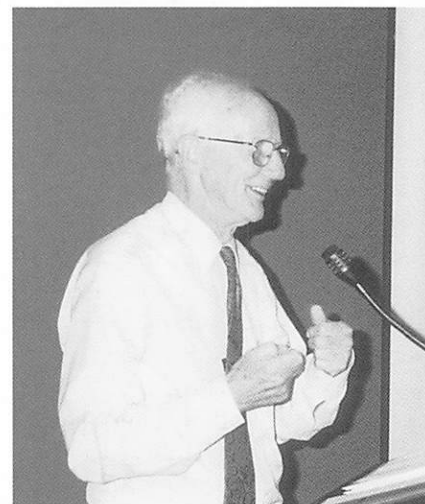
*Ken Russell*



*Eric Sowe*



*David Griffiths*



*Jim Douglas*



Remarks at the Presentation of the

**J.B.DOUGLAS POSTGRADUATE AWARDS**

of the Statistical Society of  
Australia, New South Wales  
Branch

27th November 2002

First, let me congratulate the winners on this year's Award - well done, with the confident expectation that this is just the start of your continuing postgraduate achievements.

Second, I should wish to express my appreciation to the Branch for attaching my name to the Award: it's a great honour which touches me deeply.

Third, I regret more than I can convey that my wife Alma can't be here. Without her love and support there is no likelihood that I would have been able to have such a long, happy and fruitful association with the Statistical Society.

How did one become a statistician in the 1940s and 50s? My answer will be specific and not general - autobiographical rather than historical; and discursive rather than sharply focussed - rather like my career.

The household in which I grew up was literate and encouraging: an early birthday present was a year's subscription to the local Public Library. But there was no orientation towards science that I can recall, and I think the formal beginning of this was at primary school, where in Victoria in the 1930s every child was required to have a medical examination. The examining doctor had a 'slave' assigned, to bring children from classrooms and the like, and I guess I was bright enough to be able to do this. It happened that the doctor was a Sci-Fi devotee, having a small library with him - and I was hooked. Rather later, I was puzzled by a probability question in Lancelot Hogben's *Mathematics for the Million* and wrote to the then Dean of Science at the University



*David Warton, Katherine Courtney, Cicil Fonseka, Helen Armstrong, Katrina Mather, Petra Graham and David Chan at the Postgraduate Awards.*

of Melbourne, Professor W.E. Agar, F.R.S.: his two page handwritten reply (unfortunately not kept) must have convinced me of the wisdom and humanity of scientists!

At secondary school I gave up all Mathematics after what's now called Year 8: the prospect of eventually discovering what  $x$  really was, which is what I dimly thought further mathematics would lead me to, wasn't too exciting. So I took in its place Shorthand, and Commercial Principles and Practice, but, in an early example of sex discrimination, was excluded from taking Typing because of a shortage of typewriters: girls had priority access. However, I continued with Physics and Chemistry, and so - never having heard of trigonometric functions - came to understand that, given a force in a certain direction, the cosine of the angle between that and another direction was defined to be the ratio of the component of the force in the other direction to the original force. This definition made the derivation of trigonometric identities somewhat tricky.

After completing my Leaving Certificate I realized that if I wanted to continue with Physics I really must learn some more Mathematics, and so, while a student teacher, did

Leaving Certificate Maths II, III and IV by private study, the last mostly in the country while headmaster at one teacher schools, at the age of eighteen (World War II was in progress).

A scholarship then took me to Melbourne Teachers' College for a year, and a T.P.T.C. (do you know what this stands for? Trained Primary Teachers Certificate), the theory and practice of which was subsequently of great value in University teaching - perhaps especially useful has been the honours pass in Infant Room Method. A further scholarship led to a B.Sc. Physics programme, rapidly converted to an Honours B.A. course in Mathematics, at the University of Melbourne. As part of it, I took the one and only course in Statistics I've ever attended, taught by M.H. Belz, the first Professor of Statistics in Australia (though he didn't hold that position then). It was a great pleasure a number of years later to be invited to give an M.H. Belz Lecture at the University of Melbourne.

During this time I had tutored in Mathematics and Statistics, then moved into teaching Maths and Science at High School, completed my Physics B.Sc. part-time, and eventually applied for a Lectureship



## Branch Reports

in Mathematics at the then to be established N.S.W. Institute of Technology in Sydney, taking up the position in November 1947. This was just after the foundation of the Statistical Society of N.S.W., though I wasn't then aware of its existence. After a stint in Newcastle, and a year on leave back in Melbourne doing an M.A. in Statistics, I returned to Sydney, and have been here, essentially, ever since. It was in Melbourne that a problem relating to the plant *Leucopogon Virgatus*, raised by David Goodall of C.S.I.R., directed my attention to what became a lifelong interest in the so-called contagious distributions. Writing a book on the subject, though not destroying my interest in it, convinced me that I would never write another book.

What had diverted me from Physics (called Natural Philosophy when I began to study it at University level) and then from Mathematics to Statistics? I think it was the way Statistics could be used to analyse so effectively such a variety of real world problems, and the interaction with people whose problems these were.

Perhaps the highlight of these fifty or so years is the continuing friendships which grew up with staff, students and clients. Among the developments to which I look back with particular satisfaction are the establishment of Statistics programmes at the University of New South Wales, as the N.S.W. Institute of Technology had become: Honours B.A. and B.Sc., M.A., M.Sc., Ph.D., M.Stat., and numerous service courses - e.g. in various branches of Engineering, Biological Science, Applied Science and Medicine. Participation in the introduction of Statistics in secondary school syllabuses was rewarding, too. And the provision of consulting (including computing) services both inside and outside the University was of major significance. Of course the active association with other statisticians through the growing Statistical Society's membership

was professionally very important - for the sake of students as well as for other reasons. Visits to major statistical centres in the U.K. with the support of the British Council, and to the U.S. and Canada as a Carnegie Corporation Fellow, also greatly broadened my horizons.

Consultative activity, inside and outside the University, provided stimulation for both teaching and research, and of course very valuable personal interaction. (One of my most longstanding clients and friends was Fred Hollows: "You look after my f.... statistics, and I'll look after your f.... eyes".) In earlier days, this activity was usually gratis, on the general ground that it was good public relations for Statistics. Within the University a statistical contribution was often not even explicitly acknowledged in a publication, though it gradually came to be, at least in an appendix, and later more commonly with joint authorship. Unfortunately, with more recent work, though the financial returns have been much better, "commercial in confidence" too often has applied. On a personal note, a downside was that I was in Broken Hill on a week long consultation job with a mining company when my daughter decided to appear somewhat early in Sydney: experience has confirmed that few activities come without a price.

Partly because of consultation work and the analysis of data, computation has always been a substantial interest for me. Whilst I was an undergraduate the Commonwealth government introduced a one off book allowance of 10 pounds: I consulted the Dean of the Faculty of Arts to see if this could be spent on a slide rule - it could be, it was, and here it is. My interest in computing was much expanded with the advent of digital computers and in particular the mathematically oriented interpretative array language APL. It remains my chosen way of 'doing' Statistics, with the support of STATAPL, a package of common

statistical routines which I still often use and sometimes augment.

The award by the Society of Honorary Life Membership in 1983 I enormously appreciated, as was the award of an Honorary Life Membership by the Australian Mathematical Society, so joining a double-barrelled select group which includes the late Oliver Lancaster and Joe Gani. And while seeking the evidence confirming these awards (here are the Certificates) I came across a more recent Certificate: as a Clean Up Australia volunteer this year.

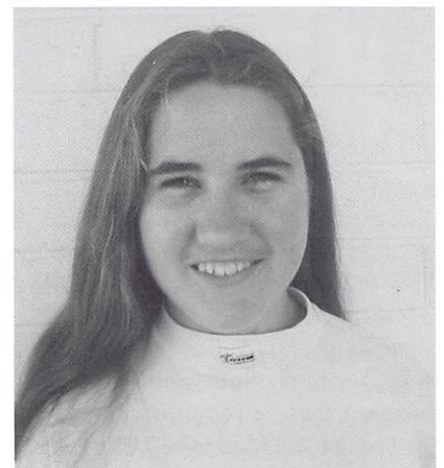
So I continue to find pleasure in doing Statistics and dealing with statisticians, and I'm much more than delighted to hear the kind remarks people have been making - and especially grateful that they're not posthumous!

Thank you very much indeed.

## VICTORIA

### Victoria Branch News

During the 2002 academic year the Victorian Branch has been privileged to have **Penny Bennett** serving as a Councillor. Penny trained as a statistician at the University of Adelaide and now works for Telstra in Melbourne. In this interview, the first in a planned series with Victorian Branch Councillors, we look at Penny's life as a statistician and her perspective as someone who has a severe vision impairment.



Penny Bennett



*Interviewer:* What induced you to study statistics at University? Did any particular university lecturers influence you?

*Penny:* In my first year at the University of Adelaide, I was drawn into Statistics and have never looked back! Professor Richard Jarrett, our first year lecturer, presented statistics as the challenging and exciting field that it is. At the very beginning he introduced the concept that statistics is a way of thinking about problems and introduced us to the sorts of tools we can use to solve them.

*Interviewer:* So many of the concepts in statistics seem inseparable from their visual display or mathematical notation. What strategies have you developed to deal with such concepts (e.g. histograms and boxplots)?

*Penny:* Conceptually, my most important resource, of course, is my brain. I simply send outside information to it using my other senses, rather than vision. For example to access mathematics, I usually use latex .tex files with the aid of my speech screen reader on the PC. In the case of graphs, I use a machine that enables them to become tactile by touch.

*Interviewer:* In what way could universities make the study of statistics more accessible to students with a vision impairment?

*Penny:* Firstly, an important point is to understand that students' particular needs are different, often due to their degree of vision impairment. I think the best idea is for the student to meet with the lecturers before the course and discuss any accessibility issues.

Usually students with a vision impairment require notes in an alternative format so receiving materials ahead of the lecture is extremely beneficial in order to keep up with the class. When lecturing, reading out equations and describing graphs as much as possible is crucial for a student with a vision impairment to be able to follow the lecture also.

*Interviewer:* Do you need special technology in your workplace? If so, would you describe it for us?

*Penny:* I use various types of adaptive technology to undertake my tasks. On my PC, I have a speech screen reader to enable me to read documents, spreadsheets, statistics packages, email and so on. I use Braille to read also. In doing so, I use my sense of touch to access information. In fact, I recently found out that I can use software to convert latex documents to Braille, including the mathematics. I enable graphs to become tactile by touch using a machine named Pictures in a Flash.

*Interviewer:* Would you recommend statistics as a career to other people with limited vision?

*Penny:* In my experience so far, often the most successful people I have met are those who really enjoy what they are doing, regardless of whether they have a disability or not. If you want something and are motivated to do it, any barriers can be eliminated.

*Interviewer:* Penny, we wish you the best in your future career as a statistician.

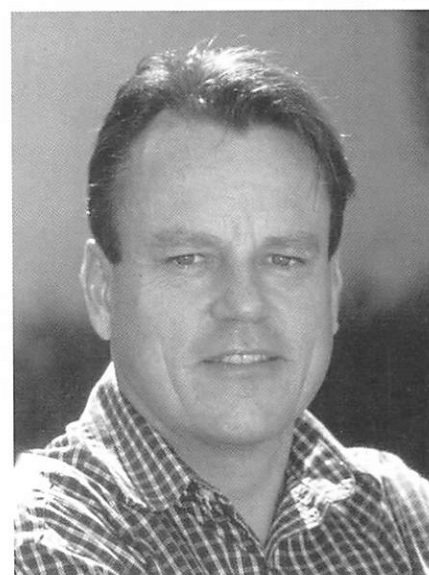
\* \* \* \* \*

It is a common lament that, in this computer age in which statistics should be booming, the discipline is instead declining. It may be a move against the trend of play, but over the last few months Melbourne has acquired four statisticians of professorial rank. The Victorian Branch congratulates them either on their promotion or on their good taste in choosing Melbourne as a place to live, or both.

**Phil Brown**, Professor of Medical Statistics at the University of Kent at Canterbury, has taken leave-of-absence for 2003 and will lead the CSIRO Applied Bioinformatics Group for 12 months. Members of the Group are located in Brisbane, Canberra, Melbourne and Adelaide, but Phil is based at the CSIRO Clayton site, near Monash University. Phil might be

called a 'free-wheeling Bayesian' -- he is one of a handful of people to have attended all seven of the International Valencia Meetings on Bayesian Statistics, and he cycles to and from work each day in Melbourne peak hour traffic.

In accepting a Professorial Fellowship in the Department of Civil and Environmental Engineering at the University of Melbourne, **David Fox** is practising what he preaches. David, until recently a high-level manager in CSIRO Land and



*David Fox unfettered.*

Water in Canberra, believes that environmental statisticians need to apply bolt-cutters to the chains that bind them to their desks. They would be taken more seriously by other environmental scientists if they stood shoulder to shoulder with them at the greenface. David's new role is to develop and conduct large multi-disciplinary environmental projects of mutual benefit to the University of Melbourne and CSIRO.

**Steve Clarke** has been awarded a personal chair by Swinburne University of Technology in recognition of his long-continuing contributions to statistical and mathematical modelling in sport and gaming. Steve has over many years advocated the use of sporting examples to motivate students.

## Branch Reports

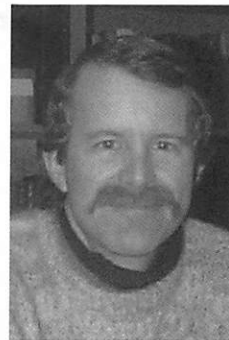


A typical day in the life of a statistician. Stephen Clarke (far right) with friends.

His computer football predictions have appeared in the Australian media for more than 20 years, and he has discussed his research on many popular television and radio programs. These include the Coodabeens, Today/Tonight, Quantum, Live and Sweaty, ABC TV News, PM, the Footy Show and The Panel. One day Steve might tell us how (and whether) the Duckworth-Lewis adjustment of scores in rain-affected one-day cricket matches works.

After four years at the Australian Graduate School of Management at the University of New South Wales, **Chris Lloyd** has moved to the Melbourne Business School to take up the position of Professor of Business Statistics. His main challenge will be to develop all aspects of the quantitative component of the MBA degree, especially to integrate it with the economic, finance and operations components. Chris intends to continue his research into accurate confidence intervals for discrete data, and ROC (Receiver Operating Characteristic) curves. Recently Chris has developed a research interest in measuring competitive dominance within different competitive domains, for instance sport and business.

**Gary Grunwald** flew into Melbourne for ten days in December 2002 to teach a course on linear models on behalf of the Statistical Consulting Centre at the University of Melbourne. Gary, an automatic entry on that never-written-down list of outstanding teachers of statistics, lectured at the University of Melbourne from 1988 to 1996 and was a very active Branch member during that time. Gary now enjoys life in Colorado, where, apart from skiing in winter and hiking in summer, he is a biometrician specialising in health sciences at the University of Colorado in Denver.



Gary Grunwald. His photo has not aged in 10 years.

\*\*\*\*\*

If some all-powerful dictator were to demand that the word 'energy' be struck out of the English language, 'Hong Kong' could be its replacement. When the University of Hong Kong and the Hong Kong Polytechnic University

announced that they were hosting an International Conference on Applied Statistics, Actuarial Science and Financial Mathematics in December 2002 (ICAAF2002), it was time to sit up and take notice. Quanxi Shao from CSIRO in Perth was one of the ringleaders who plotted the conference. A number of Australian statisticians presented invited or contributed talks, mainly in applied statistics and environmetrics. It was surprising that some prominent Australians working in financial modelling did not attend the level of mathematics was extremely high. The local organisers are determined to make this a regular event that attracts top-class statisticians from the region and beyond. Be warned!

Geoff Laslett

### Can Economists Forecast Exchange Rates? If so, is it profitable?

At the September 2002 meeting of the Victorian Branch, Gulay Avsar of the Victoria University of Technology discussed joint research with Barry Goss of Monash University relating to the forecast of exchange rates. The objective was to develop and present a simultaneous rational expectations model of the US dollar/Deutschemark market using information from both spot and futures markets. Gulay explained how the research led to the rejection of the efficient market hypothesis.

In formulating the model, functional relationships for various market players (e.g. short hedgers, long hedgers and speculators) were proposed. For the purposes of data analysis, the sample period was divided into two parts. The parameters of the model were estimated using data from February 1983 to December 1989. The rest of the data, from February 1990 to December 1992, was reserved for a post-sample simulation study.

In general, the results supported the rational expectation hypothesis. It was found that short hedgers significantly increase their cover





*Kevin Donegan (University of Western Sydney) and Ann Cowling (ANU) on Lamma Island after the ICAAF2002 meeting in Hong Kong. The photographer asked one to think as a Bayesian and the other to think classically, which is why they are sitting on different benches. The inference problem is to determine which is which.*

with increased volatility in the market, but long hedgers and speculators significantly reduce their spot market commitment under the same circumstances.

Using the last two years of data, the modellers simulated spot and future prices over a particular postsample period and found that the derived forecast significantly outperformed the futures rate. In particular, the simulated spot rate outperformed two rival forecasts, namely the random walk and the lagged futures rate. This is evidence against the efficient market hypothesis.

This result is only a necessary condition for the rejection of the efficient market hypothesis. A sufficient condition is that the model can be used for trading programs, that is, to produce risk-adjusted profits. That was the last part of the study. The researchers examined a trading program in

which there were three rules. First, if the simulated values from the model outperformed the current futures rate, this implies that both spot rate and future rate will rise. Therefore buy futures. Second, if the values simulated by the model are less than the futures rate then both rates will fall, so sell futures. Finally, if equal, hold position.

Over the post-sample period, 35 short and long traders were considered. For the short traders, 25 out of 35 of the spot rates simulated by the model were less than the futures. For a period of one month, less than half were profitable. For the long traders buying futures for seven days, more than half were profitable and for one month the results were even better. Again, this is evidence against the efficient market hypothesis.

Finally Gulay observed that the researchers are still reluctant to reject the efficient market hypothesis

because the study involves only one post-sample period for testing. It would be better if they had repeated sample periods. Nevertheless, the research provides evidence that we can forecast exchange rates and that it is indeed profitable.

A longer summary of this presentation is available at the Victorian Branch web site <http://matilda.vu.edu.au/~ntd/statsvic/>. The entire paper can be viewed at <http://www.qgroup.org.au/SFMW/Goss.pdf>.

*Penny Bennett*

### **A Statistical Hotchpotch**

On 22 October Associate Professor Ray Watson gave a very entertaining and thought provoking 2002 Belz Lecture to the Victorian Branch of the Society. The lecture, entitled "A Statistical Hotchpotch", was attended by 80 members, guests and visitors.

## Branch Reports

Ray first of all gave his impressions of Maurice Belz, after whom the annual lecture is named, and made some tongue-in-cheek comparisons with himself. Although Ray said he obviously could not compete with Belz's sense of style and refinement, at least he liked French food and he was sure that Belz had not won a Watson prize and would be no match for him on a basketball court.

Ray covered many areas and curiosities that had occurred in his career as a tertiary teacher and active statistical consultant. These included thoughts on more useful notations for distributions and a notation for the consonance or otherwise of a model with the data, methods of simulating bivariate data for specified marginal distributions and correlation, methods of combining confidence intervals, geometric methods of establishing important results, methods of estimating means with various levels of information and

resampling methods. Ray also included his important "dozen madder rule", well known to his students. It was interesting that most of these different views of elementary statistical concepts had arisen from students finding new ways to look at standard problems.

In concluding Ray took the opportunity to bemoan how the discipline has tended to fracture into separate sections in various schools and faculties throughout universities. He urged those present to see how links could be made with a central role played by consulting centres, and reflected that Belz would be doing everything to strengthen communication. Ray also challenged the Statistical Society to reinforce these linkages, perhaps through an annual shindig!

After the lecture and question time a group of 30 went to the nearby University Café in Lygon Street,

Carlton, for a very fine Belz dinner, which was enjoyed by all.

*Neil Diamond*

### **Using Business Activity Statement data to improve Australia's official statistics**

The November meeting of the Victoria Branch was addressed by Gemma Van Halderen, Director, Business Survey Methodology, Australian Bureau of Statistics (ABS). Gemma re-presented a talk she gave at the International Conference on Improving Surveys in August 2002.

We will all be well aware that the new tax system, including a Goods & Services Tax (GST) was introduced in Australia in July 2000. Businesses in Australia submit regular reports to the Australian Taxation Office in respect to their various taxation obligations (GST, pay as you go withholding and pay as you go installment) via



*Gemma Van Halderen and Judy Henson, both from the ABS, at the Universal café after the November meeting.*

*Photo: Brian Phillips.*



Business Activity Statements (BAS). Some of the data reported on the BAS forms have been identified by the ABS as potentially useful statistical information. This includes key economic data items, e.g. business turnover or sales or wages & salaries. To aid in the administration of the new tax system, a new Australian Business Register (ABR) was designed, where each business registering to be part of the new tax system required an Australian Business Number (ABN) a unique business identifier. These developments have resulted in a powerful piece of statistical infrastructure that can be used to improve the accuracy of Australia's official economic statistics, and to reduce the reporting load that official statistical activity imposes on Australia's business community. Gemma's talk detailed the sort of thinking and activity that has been occurring in the ABS over the past several years as a result of these developments.

Early on Gemma demonstrated a strong focus on the quality of the processes that were in place. She mentioned the data quality framework that the ABS uses to help assess sources of data. This framework articulates 6 key areas of quality - relevance, coherence, accessibility, interpretability, accuracy and timeliness. For statistical use, the BAS data scores highly on all of these dimensions except for timeliness. A key element of the overall quality of ABS output is the speed with which key indicators of the state of the Australian economy can be released. The estimate must be of sufficient quality to ensure it is accurate enough for the purposes to which it will be put, and in this sense there are very strong advantages in using BAS data. It is easy to access and use, it can be readily matched to sample data via the ABN and data items are well defined. However, the delays that would be involved in trying to use estimates based on taxation data alone mean that it is still necessary for ABS business

surveys to be conducted.

Gemma discussed ABS efforts to effectively use BAS and other taxation data in seven methodological areas: improving stratification, using alternative estimation methodologies, data substitution, data supplementation, improved survey processes (editing data, imputing for non-response, etc), expanding the range of statistical products and data items, and in the maintenance strategy for the business register used to produce the sample survey population frames.

Gemma demonstrated that the use of high quality data in the survey infrastructure and design had a very strong impact, not only on the technical performance of the estimates, but also in many of the practical aspects of how a large-scale repeating survey works. For example, by using BAS wages & salaries to stratify a population into size categories, rather than the previous size benchmark of employment (sourced from Group Employer registrations and seldom updated for many sectors of the business economy), one survey could expect an immediate change in its sample rotation rate from the order of 6% to almost 20% - this means that more businesses could expect to "rotate out" (be deselected) of this survey by using the new size benchmark. This in turn impacts the number of new selections that need to be "inducted" into the survey, and consequently the amount of resources and effort that is required for "provider management" activities. Gemma gave several other examples of where the use of BAS and other taxation data led to significant improvements in the quality of the final estimate, or conversely reductions in the survey sample size needed to meet the accuracy requirements of the estimates.

Finally, Gemma noted that while the timeliness of the taxation data was a drawback of using the data source for statistical purposes, a small

degree of age in the benchmark data that is used for statistical techniques such as stratification or regression estimation is not much of a handicap.

*Bruce Fraser*

## QUEENSLAND

### Statistical Issues in Forensic Evidence

For our Christmas meeting, Associate Professor Janet Chaseling (Faculty of Environmental Sciences, Griffith University, Qld) addressed the branch on her experiences with forensic science and the use/misuse of statistics.

In the last decade, statistical inference has become a key issue in the presentation of some areas of forensic evidence, in particular DNA. Within the adversarial legal system used in Australia, the UK and the USA, statistics has become a tool that can be used by barristers to 'muddy the water' and, in some case, lead to the exclusion of reliable scientific evidence. The problems come from two areas; firstly, genuine statistical issues related to violation of assumptions and poorly defined questions, and secondly, communication difficulties stemming from the poor acceptance of anything 'statistical' by society in general.

Janet presented a number of the statistical issues that arise in the evidentiary scene, including problems of non-random samples, non-independence of simultaneous events, statistical models versus biological models, conditional probabilities and the Bayesian paradigm. These were given within the context of the type of evidence and scenarios in which they arise, for example, estimation of the match probability of a multi-locus DNA profile as found at the crime scene of a murder or rape; unravelling the contributors to a mixed DNA profile such as is found in a 'pack' rape, or when blood from a victim and a suspect are mixed; determining the



## Branch Reports

likelihood that a body is that of a particular missing person using only the person's relatives; predicting the quantity of morphine administered from the amount remaining in the body many hours after death; determining the probability that a plastic bag (or an ecstasy tablet) comes from a particular batch or whether a glass fragment comes from a car headlight, a bottle or a window.

Janet also gave us some very entertaining stories in relation to problems she encountered in communicating statistics. She presented us with the problems the unsuspecting statistical expert witness may face when communicating statistics to a diverse audience (the forensic scientist, the lawyer, the judge and the jury), which has a lack of statistical awareness and knowledge and often a prior fear.

We were also given some very good tips for when we find ourselves being assaulted, so the perpetrator can be clearly identified with DNA evidence. This world Janet exposed us to is certainly 'stranger than fiction'.



Melissa Dobbie and Bronwyn Harch at Janet Chaseling's talk.

### BIOGRAPHY:

After graduating from the University of Queensland Janet spent nine years as a Biometrician in the Queensland Department of Primary Industries before taking up a position at Griffith University where she is now an Associate Professor in Applied Statistics in the Australian School of Environmental Studies. She served as Head of the School of Applied Mathematics and Statistics for eight years, working closely within the Queensland secondary schools promoting the need for applied statistics and data analysis as a parallel to calculus in the high school maths curriculum.

Current research interests range from training statistical consultants and statistical education and communication, to dairy research, statistical issues in forensic science, and forestry. Janet has special interests in experimental design, multivariate correlated data series and data mining. She has supervised more than 50 honours students and ten post graduate students.

Janet has been an invited academic in universities in the USA, Scotland, England, New Zealand, Norway

and Sweden. She has been an author on more than 40 refereed articles and several books and book chapters including 'DNA Statistics Under Trial in the Australian Adversarial System'. In: Joseph L. Gastwirth, Editor: *Statistical Science in the Courtroom*, Springer-Verlag, New York. pp99-124 (2000). She has been an expert witness on more than 50 criminal trials throughout Australia.

Janet is an executive officer in a Division 6 research group of the International Union of Forestry Research Organisations, an elected Fellow of the Royal Statistical Society in the United Kingdom, and an Accredited Statistician in Australia.

### Christmas Celebrations

After Janet's presentation, 31 members adjourned to the University of Queensland Staff club for a Christmas themed dinner. Special mention should be made of the high attendance of students from Griffith University via the subsidies provided by both the Branch and Janet Chaseling (Griffith University). Walter Robb (Qld Treasury) won the lucky

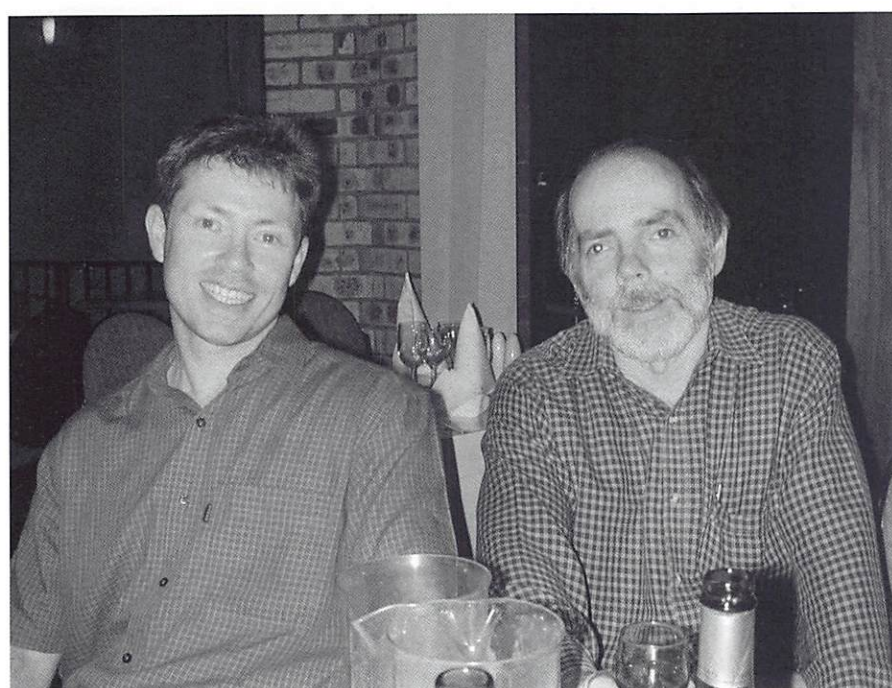


Walter Robb (Qld Treasury) receiving the lucky door prize from Janet Chaseling (Griffith University) at the Christmas dinner.





*The ambience of the UQ Staff Club being enjoyed by the team from Griffith University.*



*Dave Mathews and Geoff McLachlan (UQ) enjoying a chat at the dinner.*

door prize of a book voucher from the University of Queensland bookshop. We all enjoyed a very casual dining experience and thanked Melissa Dobbie (CSIRO) for organising such a memorable evening.

#### **Forecasting 'El Niño' in a Highly Variable Global Environment**

As part of Noel Cressie's week-long visit to CSIRO Mathematical & Information Sciences at Cleveland, Noel addressed the local Qld branch in relation to one of the very interesting aspects of statistical research he and his collaborators, Mark Berliner (Ohio State University, USA) and Christopher Wikle (University of Missouri, USA), are considering.

## Branch Reports



*Adrian and Petra (UQ) catching up at the Christmas dinner.*

A paper outlining aspects of this work can be found in the *Journal of Climate* (2000).

Noel began by outlining that oceanic and atmospheric processes involved with 'El Niño' display highly complicated variability over both space and time. To set the scene and to provide the essence of the talk in a 'nutshell', the research aims to express scientific paradigms associated with 'El Niño' through a Bayesian dynamical statistical model. Noel and his colleagues produce long-lead (7-month) forecasts of Sea Surface Temperature (SST) in the equatorial Pacific, along with error bounds on the forecasts.

Prediction of SST in the southern equatorial Pacific are made from SST data collected from January 1970 to January 2001 (over 361 time intervals) using  $2^0 \times 2^0$  pixels on a  $84 \times 30$  grid (2,520 pixels in total). The data considered for analysis are anomalies from the monthly means. The subsequent sample

size is approximately 909,720. This constitutes for Noel a 'large' data set problem; beyond small but not quite as big as massive.

Noel then went on to outline the traditional climatological approach to this kind of forecasting problem, where the data is usually filtered to remove noise, yielding smooth data. Forecasts are then based on deterministic numerical modelling which have been derived from physics and use parameters that have been obtained from partial differential equations.

In contrast, Noel proposed a hierarchical statistical modelling approach to this forecasting problem. In this approach, you "model locally and predict globally" and models are built up in stages, allowing for uncertainty in measurement (data model), physics (process model) and parameter values (prior model). This approach incorporates dimension reduction, model uncertainty at all levels

of the hierarchy, regime shifts which are triggered by the lack of westerly winds in the western Pacific, MCMC computation of the posterior distribution and the ability to then map the pixel values for visual assessment of the forecasts.

We were also reminded that statistics is "the science of uncertainty" and as statisticians our principal tools should include mathematics, computing, visualisation, experimental design and most importantly, common sense.

Noel also took the opportunity to talk to the members of the branch about Geographical Information Systems GIS and spatial statistics and the struggle between pragmatism and optimality. The integration of GIS and geostatistics has already been realised (eg Geostatistical Analyst™ in ARCOINFO™), but the way of the future requires GIS and hierarchical spatial modelling to be integrated. The forecasting application Noel discussed was too big a problem for WinBugs™ and was implemented running workstations using MATLAB™.

More details about Noel's research interests can be found at: <http://www.stat.ohio-state.edu/~sjes>.

*Acknowledgements: Many thanks to Noel for sending me his presentation slides to help with my write up of his talk. I have drawn heavily from his notes. Input from Melissa Dobbie was also very much appreciated.*

### **BIOGRAPHY:**

Noel Cressie was born in Fremantle, Western Australia. He received the Bachelor of Science degree with first class honours in Mathematics from the University of Western Australia. He received the M.A. and Ph.D. degrees in Statistics from Princeton University in 1973 and 1975, respectively. Between 1976 and 1983 he was Lecturer and Senior Lecturer at The Flinders University of South Australia. From 1983 to 1998 he



was Professor of Statistics and from 1993 to 1998 Distinguished Professor in Liberal Arts and Sciences at Iowa State University. From 1998 he has been Professor of Statistics at The Ohio State University and Director of the Program in Spatial Statistics and Environmental Sciences (SSES).

He is the author of over 175 refereed articles and of two books, the most recent being, a revised edition of "Statistics for Spatial Data", published by John Wiley and Sons in 1993. His research interests are in the statistical modeling and analysis of spatio-temporal data, including statistical image analysis and remote sensing. Dr Cressie is a Fellow of the American Statistical Association and The Institute of Mathematical Statistics, and he is an Elected Member of the International Statistical Institute.

*Bronwyn Harch*

## CANBERRA

### Statistical moderation in the Victorian Certificate of Education (VCE)

At the October meeting, the Canberra branch enjoyed a very entertaining talk given by Professor Tim Brown, Dean of Science at the Australian National University. He talked about an application of a statistical method to calculate the score of the VCE.

In Victoria, 40000 students in about 550 schools sit assessment in about 80 to 90 subjects called studies. Each student does on average about four subjects and there are three scores. It is vital to have procedures that are transparent enough to be understood by interested students, parents and teachers. To achieve this, methods should be equitable and fair as understood by students, parents and teachers, need to avoid any complications, models or assumptions that are not necessary and cater for bizarre

outcomes (if it can happen in VCE, it will happen).

Tim stated the statistical problem: find a transformation  $h$ , which takes a discrete random variable  $X$ , to the random variable  $h(X)$ , which must have specified quantiles which agree with those of a specified distribution  $G$ . The transformation  $h$  should be as smooth as possible. In Victoria, methods and standards of assessment may now vary from school to school, so it is necessary to ensure comparability from school to school before combining school and examination results. In this context,  $X$  takes values of the school assessments in one school and  $G$  is the distribution of external scores for that school. In NSW, the maximum value of  $h(X)$ , the moderated school assessment, is matched to the mean of the external score; the mean moderated school assessment is matched to the mean of the external scores and an attempt is made to match the lowest school assessment with the lowest external score. The function  $h$  is quadratic. In Victoria, the maxima, quartiles and medians are matched, and an attempt is also made to match means. The function  $h$  is piecewise quadratic.

The Equivalent National Tertiary Entrance Rank (ENTER) is calculated by combining the School Assessed Coursework (SAC) and examination marks. The NSW moderation method was used in Victoria in 2000. The program worked but there were some problems implementing this method in Victoria, as the SAS software was not available on the required date, consideration of disadvantage is different in Victoria and the implementation was highly dependent on intervention.

After this stimulating talk, members of the Canberra branch enjoyed a good discussion tasting a delicious barbeque in good company.

### Knibbs Lecture

#### To what extent has Fisher's research program been fulfilled in Australia?

In the last statistical event of 2002, Dr Oliver Mayo presented the 2002 Knibbs Lecture. Oliver discussed the nature of R. A. Fisher and he also reviewed Fisher's research program, especially the research topics that Fisher inspired Australians to tackle.

Fisher's legacy in statistics includes simple clear methods, experiment design, randomisation and sampling distributions. In the first two Australians have made great contributions. In genetics his legacy is in reconciliation of Darwin and Mendel; the theory of natural selection; methods for human, animal and plant genetics; and genetics of breeding systems. Australians have made great contributions to the last three. Also, part of his legacy is people like Bennett, Cooper, Cornish, Ewens and others.

Fisher also left some unfinished business such as fiducial inference, evolution of dominance, tempo and mode of natural selection and genetical models for quantitative inheritance among other topics. Australians have made great contributions to all these topics.

Twins were an essential part of Fisher's human genetics research program. He demonstrated using twin studies that genes contribute to propensity to lung cancer and that genes also contribute to the propensity to smoke. However there is no strong evidence of a third hypothesis he formulated that is some of those genes contribute to both propensities.

Professor Andrew Cockburn from the Department of Botany and Zoology at the Australian National University discussed some issues that made Fisher famous but obscure.

After this interesting and enlightening talk, members of the branch enjoyed the Knibbs dinner at the Belconnen Premier Inn consisting of a buffet dinner.

*Veronica Rodriguez*



## Australasian Conferences

### New Zealand Statistical Association Conference 2003

2 – 4 July, 2003

Massey University, Palmerston

North website will be at <http://www.ist.massey.ac.nz/stats/nzsa2003/>

Contact: Duncan Hedderley, D.I.H

edderley@massey.ac.nz

### Australian Statistical Conference

11 – 16 July 2004

Cairns, Queensland

Contact: Neville Bartlett,

bis@iprimus.com.au

### International Biometric Conference

11 – 16 July 2004

Cairns, Queensland

Contact: Kaye Basford, k.e.basford

@mailbox.uq.edu.au

## Overseas Conferences

### Hawaii International Conference on Statistics and Related Fields

5 – 8 June, 2003, Sheraton Waikiki

Hotel, Honolulu Hawaii USA

Sponsored by: University of

Hawaii – West Oahu

Web address <http://www.hicstatistics.org>

Email address: [statistics@hicstatistics.org](mailto:statistics@hicstatistics.org)

ISIS 3 and 3rd Annual Meeting of ENBIS

21 – 22 August, 2003

Barcelona, Spain

Information about the conference

can be found at the ENBIS website

[www.enbis.org](http://www.enbis.org) and at the SBI

website [www.public.iastate.edu/~sbi](http://www.public.iastate.edu/~sbi)

Information: <http://www.cmis.csiro.au/ties2003/>

6th International Conference of

The Mathematics Education into

the 21st Century Project

19 – 25 September, 2003

Brno, Czech Republic

“The Decidable and the

Undecidable in Mathematics

Education!”

Contact: Alan Rogerson, email:

[arogerson@vsg.edu.au](mailto:arogerson@vsg.edu.au)

### The thirteenth International Conference on Quantitative Methods for the Environmental Sciences and The Twelfth General Meeting of the International Environmetrics Society (TIES)

21 – 24 August, 2003

Friendship Hotel, Beijing, China

Major Theme: Quantifying how

our environment affects us.

Information: <http://www.cmis.csiro.au/ties2003/>

6th International Conference of

The Mathematics Education into

the 21st Century Project

19 – 25 September, 2003

Brno, Czech Republic

“The Decidable and the

Undecidable in Mathematics

Education!”

Contact: Alan Rogerson, email:

[arogerson@vsg.edu.au](mailto:arogerson@vsg.edu.au)

## Society Secretaries

### Central Council

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Secretary: Mr R. Robertson

Email:

[rodgerr@comcen.com.au](mailto:rodgerr@comcen.com.au)

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Secretary: Dr Ken Russell

Email: [kgr@uow.edu.au](mailto:kgr@uow.edu.au)

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Secretary: Ms Anna Poskitt

Email: [anna.poskitt@abs.gov.au](mailto:anna.poskitt@abs.gov.au)

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Secretary: Mr B. Fraser

Email: [bruce.fraser@abs.gov.au](mailto:bruce.fraser@abs.gov.au)

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Secretary: Ms M. Swincer

Email: [MSwincer@workcover.com](mailto:MSwincer@workcover.com)

### Western Australia

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Secretary: Ms Jodie Thompson

Email: [jodie@daa.com.au](mailto:jodie@daa.com.au)

### Queensland

President: Dr Tony Swain

Secretary: Dr Peter Baker

Email: [peter.baker@cmis.csiro.au](mailto:peter.baker@cmis.csiro.au)

## Section Chairs

### Statistics in the Medical Sciences

Professor Terry Mills

Email: [t.mills@bendigo.latrobe.edu.au](mailto:t.mills@bendigo.latrobe.edu.au)

### Statistics in the Biological Sciences

Dr Simon Barry

Email: [simon.barry@brs.gov.au](mailto:simon.barry@brs.gov.au)

### Survey and Management

Dr Robert Clark

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### Statistical Education

David Griffiths

Email: [d.a.griffiths@uow.edu.au](mailto:d.a.griffiths@uow.edu.au)

### Statistical Computing

Associate Professor Kuldeep Kumar

Email: [kkumar@bond.edu.au](mailto:kkumar@bond.edu.au)

### Industrial Statistics

Dr Aloke Phatak

Email: [aloke.phatak@cmis.csiro.au](mailto:aloke.phatak@cmis.csiro.au)

### Young Statisticians

Simon McGregor-MacDonald

Email: [smacdonald@market21.com.au](mailto:smacdonald@market21.com.au)

**Further contact details for Society Secretaries and Section Chairs can be obtained by contacting the Society on (02) 6249 8266**

## Web site of the month

Don't forget about your Society's own website, which is <http://www.statsoc.org.au>. Here's where you can find out about SSA Branches and Sections, and apply to become an accredited statistician. For a more general audience, there is information about careers in statistics, and about the importance of the skills of statisticians in general, and accredited statisticians in particular. This Newsletter even has a web page, and the Editors are hoping to place pdf versions of Newsletters there in the future.