

# newsletter

## Dennis Trewin Deputy Government Statistician



Dennis Trewin takes up a two to three year appointment as New Zealand Deputy Government Statistician. He was First Assistant Statistician of the Statistical and Information Services Division of the Australian Bureau of Statistics

(ABS). He has very much enjoyed working at the ABS and in particular the regular interaction with staff. He noted that the ABS is a highly regarded organisation which is continuing to strengthen its performance, but said that every now and again a person needs to challenge their comfort zone and after nearly six years in his current position he thought it was time to take on a new challenge. Dennis believes the move to New Zealand is very attractive from a professional point of view, and he is keen to participate in the exciting and potentially very productive changes here. Dennis has worked in the ABS for 26 years in a variety of senior positions in Central Office and as NSW Deputy Commonwealth Statistician. He holds a BSc (Hons) from Melbourne University, a BEc from the Australian National University, and a MSc from the London School of Economics.

Dennis has been very active in national and international statistical organisations. He was a founding Editor of the *SSA Newsletter*, President of the ACT Branch of the SSA in 1985 and 1986, President of the SSA in 1987 and 1988, and is currently the Chair of Survey and Management Statistics Section. In the international arena, Dennis is an Editor of the *International Statistical Review*, Associate Editor of the *Journal of Official Statistics*, and has been elected to the Councils of the International Statistical Institute and International Association of Survey Statistics for 1991-95.

## IBC92 Satellite Conferences

Nine satellite conferences are planned around IBC92. A summary is on pages 15-16.

### International Biometric Conference 7-11 December 1992 University of Waikato

#### IBC92 Registration Snapshot

As at October 29, registrations comprised 105 from NZ, 82 from Australia, 99 from Nth America, 95 from Europe, 31 from Asia, 5 from South America and 6 from Africa. These 423 participants have offered 260 contributed papers, in addition to the 20 invited papers.

#### Domestic air travel

Air New Zealand is the official carrier. If you are flying to IBC92 or one of the IBC92 satellites be sure to ask Air New Zealand National and Link, or Mount Cook Airlines for a "super thrifty" (a 50% discount) or a "thrifty" (40% discount) fare. The number of these seats is limited and special conditions on purchase and cancellation apply. Otherwise use "Authority number DOM 1318/2 Fare basis 30U" for a 30% discount off the full economy fare for seats with no restrictions on purchase or cancellation. This special discount is available for domestic air travel associated with IBC92 and its satellites.

#### In this issue:

p. 2	President's Column
pp. 4-5	Bill Armstrong
pp. 6-10	IBC92 Programme
pp. 12-14	Members' News
pp. 15-16	IBC92 Satellites

## President's Column



The exciting event on the horizon is IBC92. Judging by the programme and the impressive list of satellite workshops and conferences, this will be the biggest statistical event in New Zealand since the first Pacific Statistical Congress in 1985 and ICOTS 3 in 1990. I hope it will provide a much needed shot in the arm for our under-recognized and under-utilized services. We can do with some positive publicity. Many of us have experienced the squeeze that has resulted from the cut in real available funds to our traditional clients. Yet in many non-traditional areas there are isolated awakenings to the possibility that statisticians can provide value for money. Sadly, we still have to overcome the widely expressed opinion that statisticians and statisticians are boring, as I was told by an attendee at the recent launch of the New Zealand Quality Awards! I should point out in his defence that I was wearing my Wellington Quality Improvement Network (WELQUIN) hat at the time. I listened carefully to what he had to say and then offered him my card. Someone else, who should have known better, agreed with the first person and insisted I was an outlier. I don't agree! There is a message here for us all. I remain optimistic we will see real changes in public opinion about statistics over the next ten years. I think it will help a lot that statistics is now penetrating deeper into the primary school curriculum. We can look forward to a generation of children who have been exposed to "looking at data" - at least up to about 4th form level. This is a start. Whether non-statistical thinkers like it or not, making sense out of data is here to stay.

I look forward to seeing many of you at IBC92.  
Jean Thompson

## Support for students attending IBC92

NZSA is partially sponsoring the following students to IBC92.

Auckland University: Ms Gita Misha, Mr Thomas Yee, Ms Siew Choo Soo  
Otago University: Mr Brent Henderson,  
Mr Raymond Webster  
Massey University: Mr Robert Lynn  
Victoria University: Mr Chris Johnston  
Waikato University: Ms Lyn Hunt

## No Change of Constitution

The AGM, held in May this year, moved that the incoming Executive Committee examine how to change the Constitution to provide for a 'President-elect' position, and called an SGM at IBC92 in December 1992 for the membership to vote on it.

The Executive committee have examined this issue. In particular they discussed the constitution of the New Zealand Mathematical Society which allows for an incoming or outgoing Vice President. However, they decided that changing the constitution would not provide a solution to the current problem, which is to find a replacement for Jean Thompson. She will finish her Presidency at the next AGM.

Therefore the Executive Committee have decided not to change the constitution and so there is no need to call an SGM at IBC92 after all. We are still looking for someone to fill the Presidency. I would be grateful for suggestions, as it is desirable that the person be co-opted onto the Executive Committee as soon as possible to learn about what the Association is doing in the Executive and subcommittees.

Alistair Gray, Secretary NZSA

## New Members

We welcome Julian Visch, a student at Canterbury and Shayle Searle, Cornell University, who rejoins after many years.

A membership form is in the November 1991 *Newsletter*. Copy it and give it to a friend!

## New Zealand Statistical Association

President: C Jean Thompson

Secretary: Alistair Gray

Treasurer: Antony Gomez

Editors *NZ Statistician*: R Hugh Morton

*Newsletter*: Peter Danaher, Harold Henderson

Committee: Katrina Sharples, Graham Wood,

Garry Dickinson, Vince Galvin, Greg Arnold

Subcommittee convenors: Stephen Haslett

(SAPQC), Mike Camden (Education), John Waller (Publications), David Harte (Science Fairs)

Further information from:

Secretary

New Zealand Statistical Association

PO Box 1731

Wellington, New Zealand

Email Agray@stats.govt.nz

Phone 04 495 4685

## Applied Maths Group Archives

The Applied Mathematics Group of Industrial Research Limited, formerly the Applied Mathematics Division, Laboratory and Biometrics Section of the DSIR, is fast losing its identity. Members and former members of this severally-named organisation wish to keep some record of its former independent status. This is to be done by depositing records with the Archives Section of the Turnbull Library of Scientific staff, lists of reports and papers published, together with short historical notes for the years 1939-92. We have a complete list of the publications but not of staff. The list of 137 scientists who were permanently and 7 temporarily employed is complete but the list of vacation students is not. Every year, 4 or 5 students were employed in the vacation, but there are no records of these apart from memory, or the tea-book which records, eg that 'Max and Alec C paid 5/- for the Xmas party' in 1957.

If you were a vacation student, please send me your name and the year, and the names of the other students employed at the same time. [HH was in '73. Stan did a great job in making us welcome. -ed]  
Stan Roberts, 54 Balfour St, Mornington, Wellington  
2, Tel 04 389 9571

**1993 NZSA Conference**  
**August 25-27**  
**University of Canterbury**  
**Christchurch**

## 1993 Stats Conference - a 3-course combo

The NZ Mathematics Society Colloquium is being held at the University of Canterbury from Monday 23 to Thursday 26 August. Wednesday afternoon will be a social jaunt, so we plan to leave their meeting by starting the NZSA Conference on Wednesday 25, and join them in the afternoon. At the moment a joint "Maths and Stats in Biology" day is tentatively planned for the Thursday, followed by a stats only day on Friday. The skiing will be wonderful, so some will be encouraged to stay for a naughty southern weekend, and participate in the stats day planned as part of the NZ Association of Mathematics Teachers (NZAMT) Conference which takes place in Canterbury the following week.

## NZ email update

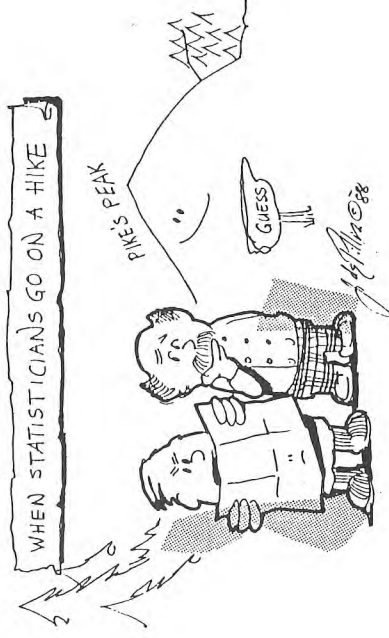
Check the email address list of NZ statisticians enclosed with the *Newsletter* and send additions or corrections to Murray Jorgensen (maj@waikato.ac.nz).

## Editorial

December is going to be Statistics month in Australasia! Around IBC92 are 9 satellite conferences from November 30 through to December 16. As you can see from this issue of the *Newsletter*, IBC92 is the dominant blip on the statistical horizon. The IBC92 team have done a wonderful job organising this major conference. Already the number of attendees has exceeded expectations (half the time they do!). We wish the organisers good luck for the big event and hope that everything goes according to plan.

The other big event coming up is Christmas. Just as the IBC92 hangover dissipates the Christmas rush will begin. At this time of the year we thank all our contributors. Your support and timeliness is applauded.

Looking to next year, our 1993 conference will overlap and then follow the NZ Mathematics Colloquium in August 1993 at Canterbury.



"I don't know if I like this hiking  
by Brownian motion  
and ending up in a random field!"

Peter Danaher  
Dept Maths & Stats  
University of Auckland  
Private Bag 92019  
Auckland

Harold Henderson  
Statistics  
AgResearch Ruakura  
Private Bag 3123  
Hamilton

Email: Danaher@mat.aukuni.ac.nz  
HendersonH@ruakura.cri.nz



## RSNZ Restructuring

The present government is planning to restructure the Royal Society but this is unlikely to happen during the life of the present Parliament. However, the Royal Society has decided to move in the direction of the probable restructuring Act. Consequently there is to be an Interim Board to steer the new body over the next year or so. This Interim Board will have representatives from various Electoral Colleges, one of which is Mathematical Sciences. Currently the NZ Statistical Association and the NZ Mathematical Society are the only members of this Electoral College. We have been asked by the Royal Society to produce a member to represent this College.

Because a member is needed for the Interim Board for its first meeting in mid-November, I, in consultation with Jean Thompson, have suggested that Jean be the Mathematical Sciences nominee until such time as a member can be elected.

Consequently, I am now calling for nominations for a member of the Interim Board who will represent Mathematical Sciences for one year. This member will need to be available to attend Board meetings which will be, at most, one per month. The business of the Board for the first year will mainly be the establishment of the new structure for an expanded Royal Society.

Nominations for the member of our Electoral College should be sent to me by Friday December 11. All nominations should include a proposer and seconder and should be signed by them and the nominee. I hope to have ballot papers available early in the New Year so that a postal election can be held by mid-February.

There are a number of less urgent issues relating to the Royal Society that have to be considered in the next year. These include (1) what societies should be members of our Electoral College (should we approach Operations Research, Computer Science people, etc); (2) how should future members be elected (bear in mind that some societies are always going to be bigger than others); (3) what is mathematical sciences, what are its needs, should it have a policy; (4) is there a need for FOSTS to continue?

I think the new-look Royal Society is an important body for "Mathematical Sciences" in this country. I therefore urge you to consider nominating someone for the Interim Board.

Derek Holton,  
President of the NZ Mathematical Society,  
Department of Mathematics and Statistics,  
University of Otago,  
PO Box 56, Dunedin  
Fax (03) 479 8427

---

## Statistical scientists

Yes, that was the headline in *The Daily Post*, August 6, with a picture of the two Rotorua students who won the Statistics prize at the Bay of Plenty Science Fair. Great headline!

Thanks to David Harte for organising the judging for statistics prizes at science fairs throughout NZ.

## Obituary

### Bill Armstrong: 1943-1992

Bill Armstrong was many things - artist, teacher, statistician, wrestler, entertainer, trombonist, band enthusiast, rebel, business consultant and others besides. He was passionate about the things he believed in and pursued them with a fine disregard for security, comfort, financial welfare and even friendship. He could be as single-minded in his pursuit of impossible ideals, and as demanding a companion as a Hebrew prophet. He was a battler who found it hard to acknowledge that he had won. He lived always in a state of creative tension. Thus he learned, thus he worked and thus he taught.

After a first degree at Sheffield Bill took an M.Sc. at Birmingham University. He held positions in Mathematics (as a Research Fellow) and then in Engineering Production at Birmingham University. Bill came to New Zealand in 1973, to work for the Forest Research Institute in Rotorua. In 1974 he moved to Victoria University, where he took much of the responsibility for getting the Diploma in Statistics course started. Changes of job then took him to Sheffield City Polytechnic (1978-), back to Wellington as a consultant (1982-), to the New Zealand Dairy Board (1984-), to CSIRO in Melbourne (1986-). In 1987, with his wife Margaret, he set up Armstrong Armstrong and Associates. At the time of his sudden and unexpected death this was a successful business.

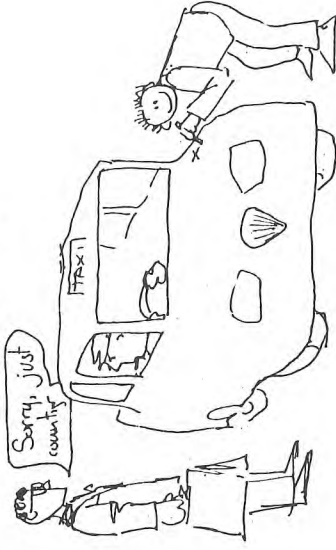
From around the time when Bill worked at Victoria University, Total Quality Management became Bill's passion. He stayed close to Deming's own exposition of TQM principles. He was earnest, single-minded and not easily deterred once he had set his mind on a line of action. He had little sympathy with approaches that, as he saw it, brought unnecessary complication to the practical application of statistics. He was a man with a mission, determined to convey to all who would listen a sense of the power for innovation and improvement that was available from following his exposition of the principles of TQM. He would express very open disappointment when, as often, he could not carry his fellow statisticians all of the way in his judgements. He demanded a single-minded pursuit of TQM methods, whatever the cost to career or financial welfare.

A visit to Bill in Melbourne around Easter 1990 gave me the opportunity to watch Bill at work with his clients. Bill focused his talks around a few simple points and used his considerable artistic skills to catch eye as well as ear. Booklets and notes, all copiously illustrated, backed up his spoken comment. He interspersed talk with practical exercises that demonstrated the application of his message to the workplace where his seminar took place. He came at his points from a variety of angles and used discussion and question to reinforce them. When he was satisfied that he had made his point, he would move on. His enthusiasm and determination were infectious.

Bill liked to press visiting statisticians into giving talks to his clients. David Vere-Jones had this experience on a couple of occasions. My instructions, when I visited, were to talk about an application that would extend his audience

a bit and give them confidence in their abilities. It should be a little outside their work experience. I talked about the use of records of taxi sightings to estimate the number of taxis in an area. We discussed the assumptions that were implicit. The line drawing shows what Bill made of my talk. Bill was ever ready to use the occasion.

John's taxi example :-  
Count the number of taxis



① ~~xxxxxx~~

Don't like the model!

② ~~-----~~ 390

1. Choose maximum
2. Maximum + 397 See how precision increases with sample size.

3. Fish tagging for taxis

Bill was keenly aware that effective practical application of statistics requires a great deal more than a good grip of the methods of mathematical statistics. He had the skills needed to get industrial clients using simple effective methods that cut away at complication, ensure high quality data, and foster accurate interpretation. Once the simple methods come into wide use, in organisations whose management structures adapt to accommodate them, demand for more sophisticated approaches will follow. The statistical community can ill afford the loss of Bill's ability to challenge, amuse, cajole, provoke, teach and enthuse.

He is survived by his daughter Elizabeth, and by his wife Margaret from whom he had separated. John Maimdonald

### David Vere-Jones adds

Bill came to us almost by chance - he had applied unsuccessfully for a position in the Economics Department who kindly passed the papers on to us when they found we had problems filling our own position. He seemed well-suited to play the role we had in view for him, developing

the Dip ORS Programme, but how well-suited we did not know until after he arrived. One of his referees was Prof Daniels in Birmingham who described him slightly wryly as having "unbounded enthusiasm for statistics". This was really true. As John says, he was passionate about what he believed in, and statistics was what he believed in most of all.

His greatest gift, I think, was in linking statistics with the work place. He was most at ease explaining statistics to workers "on the shop floor", least at ease in the Manager's office. In fact he was a totally impossible person to manage, despite one's affection and sympathy for him. After developing the Diploma and other courses, teaching brilliantly and unpredictably in different courses, and showing his greatest strength in nurturing the students working on diploma projects - no such student was ever less than brilliant and most were geniuses, revealing to Bill new aspects of statistics and mathematics - he was drawn back to England, much to my regret, and when he returned we were not able to do better than offer him promises of consulting work that were only partially realised.

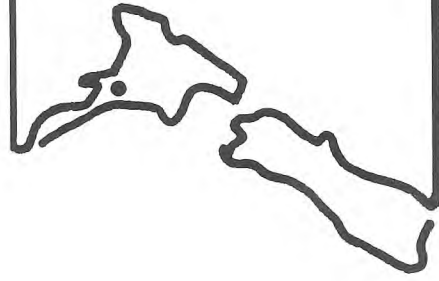
Later, he went to Australia, following what had become a somewhat familiar pattern of occasional brilliant successes with a client, and more regular disagreements with his bosses. Finally he was able to become a fully independent consultant and in the last few years knit around himself a very supportive, affectionate, and tightly woven group of converts using his statistical ideas in their various workplaces. His outstanding achievement in this period was the near total conversion of the greetings card manufacturer John Sands to total quality methods. Here for once he encountered a near perfect combination of sympathetic management, like minded colleagues in key positions and a staff that, fed a regular diet of pep talks and Bill's own art, grew increasingly enthusiastic. Over the last two years I had the privilege of joining Bill and his colleagues from John Sand's and elsewhere in an annual weekend retreat, where the enthusiasts, ranging from the general manager to the sales personnel were busily set to work tossing dice, counting outcomes, and exploring the strange and wonderful world of chance.

His last production was an illustrated booklet, somewhat in the "Tintin" style, explaining chance and variability, entirely handwritten and illustrated. It was entirely original and quintessential Bill Armstrong. If you have not seen a copy, try writing to John Sands: \$A12 a copy and cheap at the price as it says on the cover.

What prompted Bill's final impulse to take his own life seems to remain a mystery. His temperament inclined to volcanic outbursts, long in building up but hard to predict. I believe that, more than anything, appreciation of his work as a statistician was the key to his life and stability, and its lack, whether real or fancied, the most likely issue to provoke this last event.

He gave much to all who worked with him, certainly to me, and he will be missed by many friends as a person unique to himself and to statistics.

**Bill Armstrong: 1943-1992**



# 1992 (XVI<sup>th</sup>) International Biometric Conference

Hamilton, New Zealand 7-11 December 1992

IBC92 Secretary  
Ruakura Agricultural Centre  
Private Bag 3123  
Hamilton, New Zealand

Phone 64 (7) 856 2836  
Fax 64 (7) 838 5012  
E-mail (internet) [ibc@ruakura.maf.govt.nz](mailto:ibc@ruakura.maf.govt.nz)  
[ibc@ruakura.cri.nz](mailto:ibc@ruakura.cri.nz)

## General Information

Registration forms and information were in the previous two issues of the *Newsletter*.

## Conference venue

Management Studies Buildings (MSB), University of Waikato, Hillcrest Road, Hamilton. Registration takes place in MSB on Sunday: 8:30am to 8pm and Monday: 8am to 5pm.

## Accommodation

Conference accommodation is available in College Hall and Orchard Park Cottages on the University campus or in the Ambassador Motor Inn and neighbouring Southern Cross, Aquarius, Mill Lodge and Kings Court Motor Inns.

## Meals and social programme

Monday: 11am Opening ceremony and lunchtime welcoming reception. The conference will be opened by Len Cook, the New Zealand Government Statistician. Niels Keiding will give a presidential address on *The Biometric Society: Diversity and Unity*.

5:30 - 6:30pm Reception hosted by Professor Wilf Malcolm, the Vice Chancellor of The University of Waikato.

Evening meal at the University.

Tuesday: 6:30pm Cultural function at Turangawaewae Marae in Ngaruawahia. The evening will involve dinner in Kimiora followed by a one hour presentation of Maori culture by the Ngaruawahia High School Concert Party.

Wednesday: Mid-conference tours.

Evening meal at University.

Thursday: Conference dinner at Vilagrad vineyard in Ngahinepouri.

Friday: Closing dinner at the University.

## Mid-conference tours

Wednesday 9 December. All tours include lunch. We encourage local statisticians to go on a mid-conference tour. It should be a great day! Spaces are available on: Auckland, Rotorua, Waitomo and Black Water Rafting. But the Mt Tongariro hike is full. A more leisurely 3km walk at Waimangu Thermal Valley and the Buried Village is available as an alternative Rotorua trip.

## Accompanying persons programme

As well as the mid-conference tour we have arranged a series of activities during the conference for conference registrants. Places on selected tours (subject to minimum numbers) may be reserved on the registration form.

**Sunday:** Afternoon tour of Hamilton.

**Monday:** Opening ceremony at 11am and

Welcoming reception for lunch.

Half day tour of Hamilton in the afternoon.

**Tuesday:** Auckland or Golf

**Thursday:** Rotorua

**Friday:** Luncheon Cruise on the paddleboat MV Waipa Delta or Golf.

## Pre and post conference tours

Special pre and post IBC92 Conference tours are detailed in a glossy brochure available from the IBC92 Secretary.

## Scientific programme

The programme is detailed on pages 7-10. This and other IBC92 information is available by **anonymous ftp** from [rua2.ruakura.cri.nz](mailto:rua2.ruakura.cri.nz).

## Scientific programme committee

Chair J-J Clautriaux

Vice-Chair J A (Nye) John

Members: B Asselain, A Camussi, J B Denis, S Ellenberg, P Z Harnos, A F Iemma, P K Ito, J Jansen, Z Kaczmarek, P A Lachenbruch, A R Olsen, A Voinov, E Williams

## Contributed programme committee

Chair J A (Nye) John

Members: Alastair Scott, Chris Triggs, John Maindonald, Brian McArdle

## IBC92 Local Organising Committee

Chairperson: Ken Jury

Scientific programme: Nye John

Finance: David Johnson

Secretary: Harold Henderson

Neil Cox, Catherine Cameron, Bill Bolstad,

Murray Jorgensen, Ray Littler, John Waller

IBC92 POSTER SESSIONS

Monday 4:00 - 5:30		Tuesday 10:30 - 12:00		Tuesday 4:00 - 5:30	
P1: Biological 1		P2: Biological 2		P3: Medical	
<b>P D M Macdonald:</b> Mark-recapture estimation with small numbers of recaptures and an uncertain number of marks	<b>J Canhao:</b> The replacement series approach in the study of competition between stored product pests	<b>B Davis:</b> Analysis of a clinical trial involving a combined mortality and adherence dependent interval censored endpoint	<b>B Davis:</b> Analysis of a clinical trial involving a combined mortality and adherence dependent interval censored endpoint	<b>T Waldhoer:</b> Weighting Moran's I with population size dependent weights	<b>B Davis:</b> Analysis of a clinical trial involving a combined mortality and adherence dependent interval censored endpoint
<b>K D Adam:</b> Using molecular markers to identify quantitative trait loci for seed weight in a cross of garden pea, <i>Pisum Sativum</i> L.	<b>C E Smith:</b> Neuronal spike train study of rate dependent serial correlation	<b>M K Bulsara:</b> Cross sectional and longitudinal trends in heart disease risk factors	<b>M K Bulsara:</b> Cross sectional and longitudinal trends in heart disease risk factors	<b>W H Koehler:</b> Linkage analysis of a complex trait: mapping an indicator variable of schizophrenia	<b>W H Koehler:</b> Linkage analysis of a complex trait: mapping an indicator variable of schizophrenia
<b>P Dagnelle:</b> Multiple regression and crop yields prediction on basis of meteorological data	<b>Z Kaczmarek:</b> Multivariate combining ability analysis of parental lines on the basis of diallel crosses	<b>Z Kaczmarek:</b> Multivariate combining ability analysis of parental lines on the basis of diallel crosses	<b>Z Kaczmarek:</b> Multivariate combining ability analysis of parental lines on the basis of diallel crosses	<b>C Konoitri:</b> Factors associated with blastic transformation in chronic myeloid leukemia	<b>C Konoitri:</b> Factors associated with blastic transformation in chronic myeloid leukemia
<b>E A Carbonell:</b> Localization of quantitative trait loci using backcross and doubled haploid populations: power studies				<b>M Steele:</b> DNA fingerprinting statistics in the courtroom	<b>M Steele:</b> DNA fingerprinting statistics in the courtroom
Thursday 10:30 - 12:00		Thursday 4:00 - 5:30		Friday 10:30 - 12:00	
P4: Theory 1		P5: Theory 2		P6: Computing	
<b>K Yamaoka:</b> Comparison of MLE with WLSE in logistic model for sparse data	<b>M M Mischani:</b> Regression in unbalanced randomized complete-block design	<b>M M Mischani:</b> Regression in unbalanced randomized complete-block design	<b>M M Mischani:</b> Regression in unbalanced randomized complete-block design	<b>D Wheeler:</b> Flexi, a comprehensive smoothing package	<b>D Wheeler:</b> Flexi, a comprehensive smoothing package
<b>J-P Hsu:</b> Intra-investigator variation in grading of vertebral deformity	<b>S Z de Pinho:</b> Analysis of unbalanced factorial experiments with two quantitative factors	<b>S Z de Pinho:</b> Analysis of unbalanced factorial experiments with two quantitative factors	<b>S Z de Pinho:</b> Analysis of unbalanced factorial experiments with two quantitative factors	<b>A Gleeson:</b> TwoD - a program for the analysis of experimental data with spatial correlation in one or two dimensions	<b>A Gleeson:</b> TwoD - a program for the analysis of experimental data with spatial correlation in one or two dimensions
<b>D Holbert:</b> Bootstrap forecasts versus conventional forecasts: a comparison for a second order autoregressive model	<b>J Chaselling:</b> Undergraduates and applied statistics	<b>J Chaselling:</b> Undergraduates and applied statistics	<b>J Chaselling:</b> Undergraduates and applied statistics	<b>N-K Nguyen:</b> Srivastava-Chopra balanced optimal fractional factorial designs of resolution V and alternatives	<b>N-K Nguyen:</b> Srivastava-Chopra balanced optimal fractional factorial designs of resolution V and alternatives
<b>M Coll:</b> On the space-time interaction models to analyse environmental systems in data an frequencies domain	<b>W K Wong:</b> On the equivalence of constrained and compound optimal designs	<b>W K Wong:</b> On the equivalence of constrained and compound optimal designs	<b>W K Wong:</b> On the equivalence of constrained and compound optimal designs		
	<b>R Lenton:</b> Monitoring the environment with satellite imagery - a case study	<b>R Lenton:</b> Monitoring the environment with satellite imagery - a case study	<b>R Lenton:</b> Monitoring the environment with satellite imagery - a case study		

IBC92 INVITED AND CONTRIBUTED ORAL SESSIONS

Monday 2:00 - 3:30		C1: Ordinal Data		C2: Classical Experimental Design		C3: Mixed Models	
<b>H: The AIDS Epidemic: Past, Present, Future</b>	<b>P Graham:</b> Agreement on an ordered categorical scale: weighted kappa and beyond	<b>P Graham:</b> Agreement on an ordered categorical scale: weighted kappa and beyond	<b>J Hilton:</b> Influence of study design on power of tests for 2xk ordinal categorical data	<b>E R Williams:</b> Using Alpha to construct row and column designs	<b>A Richardson:</b> An analysis of deviance for the mixed linear model	<b>J Ofversten:</b> Estimation in mixed models via layer triangular transformation	<b>A Richardson:</b> An analysis of deviance for the mixed linear model
<b>Chairperson: L. Billard</b>	<b>M G Kenward:</b> A comparison of maximum likelihood and generalized estimating equation procedures applied to ordinal ...	<b>M G Kenward:</b> A comparison of maximum likelihood and generalized estimating equation procedures applied to ordinal ...	<b>G Brown:</b> Ordinal data: a functional model for scoring	<b>N-K Nguyen:</b> Construction of row-column designs by computer	<b>J Ofversten:</b> Estimation in mixed models via layer triangular transformation	<b>A F Emma:</b> Statistical hypothesis and orthogonal projections for unbalanced data	<b>J Ofversten:</b> Estimation in mixed models via layer triangular transformation
<b>N G. Becker:</b> Assessing the extent of the HIV epidemic: methods and achievable results.	<b>A J Lee:</b> Nonparametric estimation of the correlation matrix in analysis of correlated categorical data	<b>A J Lee:</b> Nonparametric estimation of the correlation matrix in analysis of correlated categorical data		<b>P Seeger:</b> A factorial row-column design used for a climate chamber experiment	<b>A F Emma:</b> Statistical hypothesis and orthogonal projections for unbalanced data	<b>W Sauerbret:</b> On the problem of variable selection and parameter estimation from one data set	<b>A F Emma:</b> Statistical hypothesis and orthogonal projections for unbalanced data
<b>K. Dietz:</b> Dynamic AIDS models - have they explained anything?				<b>A Gerami:</b> Generation of A-optimal and near A-optimal block designs for the test treatments versus control problem	<b>W Sauerbret:</b> On the problem of variable selection and parameter estimation from one data set	<b>R G Staudte:</b> Variance component models for dependent cell populations	<b>W Sauerbret:</b> On the problem of variable selection and parameter estimation from one data set
Monday 4:00 - 5:30		C4: Clinical Trials 1		C5: Ecology, Feeding Experiments, Growth Modelling		C6: Observational Studies	
<b>I2: Extensions Of Generalized Linear Models</b>	<b>N Victor:</b> Risk assessment of drugs in post marketing surveillance	<b>N Victor:</b> Risk assessment of drugs in post marketing surveillance	<b>C S Davis:</b> Estimation of the average treatment difference in multicenter clinical trials based on the Cochran-Mantel-Haenszel ...	<b>R L Czaplowski:</b> Accuracy assessment of remotely sensed classifications with multi-phase sampling and the multivariate composite estimator	<b>V F Flack:</b> Estimating Pearson correlation coefficients with adjustments for within subject measurement error when the ...	<b>C Drake:</b> A note on the bias due to omitted covariates in observational studies	<b>V F Flack:</b> Estimating Pearson correlation coefficients with adjustments for within subject measurement error when the ...
<b>Chairperson: A J Dobson</b>	<b>T Yanagawa:</b> Mantel-Haenszel type tests for testing equivalence, or more than equivalence in comparative clinical trials	<b>T Yanagawa:</b> Mantel-Haenszel type tests for testing equivalence, or more than equivalence in comparative clinical trials	<b>J Mau:</b> Monitoring of clinical trials for significance or equivalence	<b>B F J Manly:</b> On the analysis of multiple choice feeding experiments	<b>J H Ellenberg:</b> Bias in observational studies with differential post morbidity mortality	<b>S Szlyva:</b> The distribution of Schistosoma Haematobium in Isoka District, Zambia	<b>J H Ellenberg:</b> Bias in observational studies with differential post morbidity mortality
<b>J P Palmgren:</b> Use of exponential family nonlinear models in medical research.	<b>W Lehmaecher:</b> The analysis of clinical trials with multiple endpoints for incomplete observations	<b>W Lehmaecher:</b> The analysis of clinical trials with multiple endpoints for incomplete observations	<b>V Udombprasertgul:</b> Sequential analysis: tubal sterilization performed in the delivery suite	<b>J Perry:</b> Some recent studies in ecology and environmental change	<b>S Szlyva:</b> The distribution of Schistosoma Haematobium in Isoka District, Zambia	<b>A P Mortoni:</b> Adaptions of statistical methods for quality improvement in hospitals: ...	<b>J Perry:</b> Some recent studies in ecology and environmental change
<b>K-Y Ljang:</b> Extensions of generalized linear models in the past twenty years: overview and some biomedical applications				<b>P Dixon:</b> Testing spatial segregation in multivariate point processes	<b>S R Clarke:</b> Development of height-age functions (pinus radiata) for use in FRIYR		<b>P Dixon:</b> Testing spatial segregation in multivariate point processes

Tuesday 8:30 - 10:00

**I3: Biometry In Human Genetics And Plant Genetics**

Chairperson: E A Thompson

**R C Elston:**  
Designs for the global search of the human genome by linkage analysis

**S J Knapp:**  
Using DNA markers to estimate quantitative trait locus by environmental parameters

**C7: Repeated Measures / Growth Curves**

**M Gumpertz:** Repeated measures nonlinear regression using expected value transformations  
**N De Silva:** Analysis of growth curves of kiwifruit with implications for within-season fruit size predictions  
**J M Lachin:** Group sequential monitoring of distribution-free analyses of repeated measures  
**M Otake:** An application of growth curve model to repeated measurements of stature of ...  
**K Takezawa:** Multivariate nonlinear rates of development

**C8: Statistical Computing**

**M O'Neill:** The current state of the SAS system and future directions for biometric applications  
**J L McWhirter:** Symbolic computation - a statisticians dream or nightmare?  
**G Edser:** Natural resource applications of descriptive geostatistics using SPSS for Windows  
**J Thioulouse:** Multivariate analysis and graphical display software on Macintosh

**C9: Estimation \ Clinical Trials**

**R G Newcombe:** Unconditional confidence interval methods for the difference between binomial ...  
**S Coad:** Estimation following sequential tests involving data-dependent treatment allocation  
**N Dushitsin:** Development and validation of a simple device to estimate birthweight and to ...  
**P P Havanond:** Body weight estimation of children aged 1 to 5 using anthropometric measurement  
**A Hallstrom:** Estimating the true parameter when a trial is stopped prematurely because a monitoring ...

Tuesday 10:30 - 12:00

**I4: Design And Analysis Of Large Scale Field Experiments**

Chairperson: R Kempton

**H D Patterson:**  
REML and the analysis of series of crop variety trials

**P D Johnstone:**  
Design and analysis of a national series of fertilizer trials

**C10: Statistics at Work**

**H Hockey:** Biometry in Cameroonian agricultural research: the situation today and thoughts for tomorrow  
**D Saville:** A visual geometric approach to the teaching of basic statistical methods such as t tests, ANOVA and regression  
**M Darml:** Implications of aquaculture statistical analysis of aquaculture experiments  
**P O'Rourke:** Biometrics to assist the North Australian beef industry  
**J Thompson:** Do business people really need to know about statistical data analysis?

**C11: Physiology**

**M B Brown:** A comparison of methods for characterizing pulses in a time series  
**H Morton:** Quadratic curves and blood lactate data  
**Y Fukuba:** Factors limiting maximal oxygen uptake: re-examination by theoretical approach  
**M Faddy:** Structured compartmental models  
**P L Risdon:** Controlling variance in pulsating data

**C12: Estimation / Inference**

**K Haskard:** Robustness of analysis of variance with bounded discrete data  
**W Hauck:** Assessing equivalence of normal distributions by simultaneous testing of means ...  
**D Bohning:** The distribution of the likelihood ratio for mixtures of densities from the 1-parameter ...  
**P B Imrey:** Computation of minimum power-divergence estimators  
**B S Klim:** Validation of a mixture of two binomial model as an approximation of a more ...  
**N Bawa:** A test for separate families of hypotheses based on predictive approach

Tuesday 2:00 - 3:30

**I5: Statistical Needs For Developing Countries**

Chairperson: N Goodchild

**J Riley:**  
Biometrical perspectives under global change

**N Nokoe:**  
Status of statistics and computing in Western and Eastern Africa

**C13: Longitudinal Studies**

**L Beckett:** Discrete longitudinal data from complex samples: effects of adjusting for study design  
**D L Falrclough:** A nonparametric analysis of longitudinal data from a randomized block design with informative right censoring  
**S R Wilson:** Accommodating measurement error in the design of longitudinal studies in epidemiology  
**R J O'Hara Hlmes:** On selecting sample sizes and discrete observational times for longitudinal mortality studies  
**L M Ryan:** The effects of missing covariates in clustered data settings

**C14: Bayesian \ Time Series**

**C Brown:** Assessing association within a bivariate time series  
**C M Triggs:** Assessing prior probabilities considering geography and eyewitness evidence when presenting forensic evidence  
**N Davies:** Bayesian time series analysis of hospital patient data  
**W M Bolstad:** Backcasting in the time reversed multiprocess dynamic linear trend model with dummy seasonal effects  
**A Gelman:** Bayesian tests for goodness of fit using tail area probabilities  
**R Littlejohn:** An extension to the Diggle-Zeger procedure for analysing hormone profiles

**C15: Regression \ Linear Models**

**R Morton:** Concurrent functional relationships  
**G Arminger:** Residuals and influential points in mean structures estimated with pseudo maximum likelihood methods  
**M Gellerstedt:** Resampling procedures in linear models  
**M Stephens:** Edf tests for Box-Cox transformations in linear regression models  
**S Grosser:** Random coefficient regression and mixture distribution models

Tuesday 4:00 - 5:30

**I6: Statistics In Ecology And Environmental Science**

Chairperson: I Yoshimura

**J N R Jeffers:**  
Role of biometry in environmental decision support

**G P Patil:**  
Environmental sampling and statistical modeling with examples

**C16: Odds Ratio**

**C J Wild:** Data from response-selective samples  
**H Becher:** Efficient relative risk estimation in case-control studies using external rates  
**M Blettner:** Estimating adjusted odds ratios from incomplete contingency tables  
**H Origasa:** Tests for interaction based on three indices: odds ratio, risk ratio, and risk difference  
**T Kamakura:** Effects of stratification on the estimates of common odds ratios

**C17: Field and Neighbour Designs**

**L R Verdooren:** A dialogue system for PCs for designing field trials  
**R Kempton:** Inference in agricultural experiments  
**C Durier:** Neighbour-balanced designs for wine-tasting sessions  
**A S Clark:** Recent work on spatial designs of field experiments  
**L R Carvalho:** Randomised blocks with common treatments: an application in soybean genetics improvement

**C18: Classification and Clustering 1**

**L Hunt:** Clustering with missing data using multivariate mixture models  
**M Jorgensen:** A model-based approach to cluster analysis  
**A Gordon:** Identifying genuine clusters in a classification  
**S Ganeshanandam:** Discrimination based on absolute values  
**S Aeberhard:** Discriminant analysis in high dimensional settings



Thursday 8:30 - 10:00

<p><b>C19: Genetics</b></p>	<p><b>C21: Multivariate Analysis</b></p>
<p><b>17: Bayesian Monitoring Of Clinical Trials</b>  <b>Chairperson: D O Dixon</b>   <b>T A Louls:</b>            Bayesian approaches for monitoring clinical trials with an application to toxoplasmic encephalitis prophylaxis   <b>P F Thall:</b>            Bayesian design and monitoring of Phase II clinical trials</p>	<p><b>C20: Crop Yield - Temporal &amp; Spatial, &amp; Weather Effects</b>  <b>S J Welham:</b> Prediction of crop yield allowing interference between neighbouring plants  <b>E Barath:</b> On the statistical analysis of yield weather interaction  <b>B Cullis:</b> The analysis of multistratum and spatially correlated repeated measures data  <b>P Fox:</b> Relationships, based on twenty-six years performance, among locations testing spring ...  <b>J P Singh:</b> Response models for yield-density relationships  <b>A M Nanziri-Ssekiboobo:</b> An improvement over the classical approach for collecting crop area ...</p>
<p><b>A W F Edwards:</b> Expected number of alleles in the polar Eskimo population   <b>H Spencer:</b> Single-locus tests of the neutral hypothesis of evolution   <b>V George:</b> Likelihood of pedigrees ascertained through sibships   <b>K D Adam:</b> Survey of molecular markers and their suitability for mapping quantitative trait loci in crop and forestry species  <b>S K Lo:</b> Statistical inference of gametic disequilibrium</p>	<p><b>B Dawkins:</b> Some current approaches to high-dimensional data analysis, illustrated using Olympic pentathlon data  <b>R Meyer:</b> Analyzing multiway contingency tables by new extensions of correspondence analysis  <b>D Q Wang:</b> Maximum likelihood estimation of parameters of a spatial statistical allocation ...  <b>D Stabile:</b> Evaluation of the small sample characteristics of the Weibull Lachin statistic  <b>R Repges:</b> A unified approach to whole multivariate analysis</p>

Thursday 10:30 - 12:00

<p><b>18: Consulting And Collaboration</b>  <b>Chairperson: P Dagnelle</b></p>	<p><b>C22: Generalised Linear Models</b></p>
<p><b>D J Hand:</b>            The first step in statistical consultancy   <b>J Derr:</b>            How to increase effectiveness in statistical consulting and collaboration</p>	<p><b>C A McGilchrist:</b> REML estimation for generalised linear models  <b>M Knulman:</b> An application of generalized linear models to highway accident rates  <b>J Neuhaus:</b> A geometric approach to assess bias due to omitted covariates in generalized linear models  <b>K F Cheng:</b> Testing goodness of fit for a parametric family of link functions  <b>M D'Antuono:</b> Statistical modelling of survival and recruitment of perennial plants</p>
<p><b>W Catchpole:</b> Estimating plant biomass   <b>D Fletcher:</b> Estimating biomass in a marine survey   <b>A R Sen:</b> Lattice design in the Bow River recreation survey   <b>S K Thompson:</b> Adaptive sampling with imperfect detectability   <b>B Hock:</b> Using GIS and geostatistics to predict site index in Kaingaroa Forest, New Zealand</p>	<p><b>C24: Disease Incidence</b>  <b>R Gibberd:</b> Estimating the systematic variation in regional relative survival rates for cancer patients  <b>C J Lawrence:</b> The spread of disease in non-homogeneous populations  <b>A J Dobson:</b> A hospital epidemiology "calculator"  <b>A J Coldman:</b> Calculating the prevalence of cancer  <b>M-P Mi:</b> The use of dermatoglyphic traits in the discrimination of myocardial infarction by logistic regression  <b>C Cslaghi:</b> Dirty or biased disease mapping</p>

Thursday 2:00 - 3:30

<p><b>C25: AIDS</b></p>	<p><b>C26: Plant Breeding and Variety Trials</b></p>
<p><b>S Ellenberg:</b> Current issues in the design and conduct of AIDS clinical trials in the U.S.  <b>L Lim:</b> Estimating compliance to study medication from serum drug levels: application to the AIDS ...  <b>J M G Taylor:</b> Analysis of longitudinal AIDS data using an integrated Ornstein-Uhlenbeck ...  <b>P Bacchetti:</b> Seasonal patterns in AIDS incidence in the USA  <b>I Marschner:</b> Using age-specific AIDS incidence data to reconstruct the HIV epidemic by back-projection  <b>N Lange:</b> Hierarchical Bayes models for the progression of HIV infection using longitudinal CD4 ...</p>	<p><b>C J Dourleijn:</b> Combining estimators from a series of variety trials  <b>B Mangin:</b> Select: a program package for assisting in plant selection  <b>D Butler:</b> An application of subset selection techniques to a plant breeding programme  <b>P van der Laan:</b> Robustness of subset selection and selection of a good variety  <b>M Hannah:</b> Loess smoothing in early generation plant breeding trials  <b>V Luangviriyasaeang:</b> The analysis of adaptability of Australian tree species in Thailand</p>
<p><b>C27: Overdispersion</b></p>	<p><b>C28: Nonparametric Methods</b></p>
<p><b>J Spinelli:</b> Cramer- Von Mises statistics for the Poisson and binomial distributions  <b>A J Scott:</b> A simple method for analyzing count data exhibiting extra-Poisson variation  <b>K Roeder:</b> Tools for detecting mixing and varying dispersion in generalized linear models  <b>B J T Morgan:</b> Finite mixture models for overdispersed proportions  <b>R van de Ven:</b> Estimating the shape parameter for the negative binomial distribution  <b>S R Paul:</b> C(<math>\alpha</math>) tests for homogeneity of proportions in toxicology in presence of beta-...</p>	<p><b>B Brecht:</b> Time discrete nonparametric survival analysis using panel data   <b>T L Eudey:</b> Sample size determinations for some nonparametric tests   <b>R Murlison:</b> Nonparametric density estimation of a continuous Gaussian process   <b>H Buning:</b> Adaptive tests for the two-sample problem</p>

Thursday 4:00 - 5:30

<p><b>C29: DNA</b></p>	<p><b>C30: Medicine</b></p>
<p><b>B S Weir:</b> Statistical issues in the search for QTLs  <b>S Haslett:</b> Properties of the similarity index for DNA fingerprinting data  <b>R Ball:</b> Applications of topology to DNA  <b>A Sudbury:</b> Upper confidence bounds for the probability of a false match in DNA profiling  <b>A Caunussi:</b> The effect of biased estimate of parameters on the location of quantitative traits loci by means of molecular markers</p>	<p><b>U Feldmann:</b> Design and analysis of drug safety studies, with special reference to sporadic drug use and acute adverse reactions  <b>G Akernno:</b> Comparison between methods of surveillance  <b>M Frisen:</b> Optimal surveillance in medicine  <b>G McLachlan:</b> Mixture analysis of red blood cell volume distributions in the diagnosis of anaemia  <b>R Wolfe:</b> Estimating transient effects of renal transplantation on survival of end-stage renal disease patients using time dependent ...</p>
<p><b>C31: Experimental Design</b></p>	<p><b>C32: Additive Models</b></p>
<p><b>D Baird:</b> The validity of Cox's restricted randomisation for covariate designs  <b>D Krouse:</b> A curious property of 2**(k-p) designs  <b>R Payne:</b> Experiments for testing treatments to control take-all  <b>M Wu:</b> Designing metabolic unit studies for treatment comparison  <b>M Goto:</b> Determination of sample size on the truncated distribution  <b>T S G Peiris:</b> Determination of optimum plot size for coconut based on data from randomized complete block experiments</p>	<p><b>T Hakulinen:</b> Additive models for relative risk in an epidemiological study where the proportion of persons exposed and the exposure level vary between units  <b>P Dalgaard:</b> Estimation in large linear systems  <b>M G Schimek:</b> An alternative method of backfitting with smoothing splines in generalized additive models  <b>M Opsdell:</b> Smoothing using qualitative information  <b>T Yee:</b> A nonparametric bivariate probit model</p>

Friday 8:30 - 10:00

<p><b>19: Use Of Computers To Design Experiments</b> Chairperson: D Rasch</p>	<p><b>C33: Animal Genetics / Epidemiology</b> R Curnow: Is the susceptibility of BSE (mad cow disease) inherited?  K Mengersen: Comparing good bull and bad bull: ranking and selection approaches to sire selection M Roberts: The dynamics and control of bovine tuberculosis in possums G Wake: Modelling the spatial spread of bovine tuberculosis in the possum population in New Zealand</p>	<p><b>C34: Classification and Clustering 2</b> H J Zainodlin: Identifying and clustering tree-ring samples R Marshall: Search method for identification of subgroups in epidemiological and behavioural research S-W Guo: Joint segregation and linkage analysis of age-of-onset data for large pedigrees S Walker: Visual perception of spatial clustering in mapped data C L Williams: Analysis of dissimilarity in diversity between populations</p>	<p><b>C35: Practical Sampling</b> J R Allredge: Simulated sampling to estimate incidence and spatial patterns of plant disease T B Farver: Sampling with staggered panels to increase the efficiency of estimating the number of incident cases of diseases in food animal populations P Danaher: Maintaining a panel survey D Trewin: Can we improve the link between mathematical statistics and official statistics? C Salmond: Response rates in community-based health surveys</p>
---	--	---	---

**B Schneider:**  
An interactive computer program for design and monitoring of sequential clinical trials

**J P Villa:**  
Stochastic computing procedures and optimal designs of experiments

Friday 10:30 - 12:00

<p><b>110: Interface Of GIS And Statistical Analysis Tools</b> Chairperson: P J Diggle</p>	<p><b>C36: Generalised Linear Models 2</b> H Loft Jacobsen: Comparing results from logistic regression and recursive graphical modeling F Seillier-Moisewitsch: Predictive evaluation of logistic models  S Bull: Generalized estimating models for multiple outcomes in large epidemiologic studies B McDonald: The probability of beating an opponent J Grizzle: The analysis of ranked and ordinal data when there is intraclass correlation</p>	<p><b>C37: Survival Analysis 1</b> K W Ulm: The identification of prognostic factors in breast cancer J Klein: Calculation and interpretation of probabilities of relapse and death while in remission for bone marrow transplant patients Y-I Chen: Testing procedures for comparing several treatments with a control in the presence of random right censoring M Eerola: On causal inference in statistical models for a series of events M Abrahamowicz: General semi-parametric procedure for estimating censored survival regression models: sensitivity of conclusions to model assumptions</p>	<p><b>C38: Agricultural Modelling</b> A N Pettitt: Statistical analysis to model the spatial and temporal progress of plant disease Z Harmos: A stochastic decision making model P Racsko: Risk analysis of crop production in Hungary G Wood: How much wood is in the forest? L Billard: A stochastic model to explain the inter-relationship between disease development on leaf and stem D T Mathes: Selection of superior coconut palms for high yields low variability and adaptability: an experience from a non replicated situation</p>
--	---	--	---

**M Berman:**  
Some statistical problems arising in the analysis of image data

**B W Turnbull:**  
Tests for disease clusters about putative sources of hazard with applications

Friday 1:00 - 2:30

<p><b>C39: Capture-recapture</b></p>	<p><b>C40: Clinical Trials 2</b></p>	<p><b>C41: Practical Exptial Design</b></p>	<p><b>C42: Disease Modelling</b></p>
<p>K P Burnham: Valid inference as a function of model selection strategy in the analysis of capture-... D R Anderson: Model selection in open capture-recapture models where there is overdispersion S Pledger: Bias due to heterogeneous capture probabilities in Jolly-Seber population estimates E A Catchpole: Boundary estimation in ring-recovery and related models C E Gates: A proposal for acoustical estimation of absolute abundance of the sperm whale R Felton: Correcting for tag loss using only one tag</p>	<p>J R Murphy: A comparison of methods of measuring reliability  K Peace: Analysis of a combination of two primary efficacy measures T TANGO: Statistical significant testing to evaluate medically significant differences K Pennert: Reversal of left ventricular hypertrophy in hypertensive patients - a meta-analysis of 109 treatment studies S Anderson: Methods for testing individual equivalence K Klim: Design and analysis of group sequential logrank tests</p>	<p>A Odulaja: The gap between theory and practice of experimental design: a case study of the Nigerian situation J Mairdonald: Statistics in biological research and publication M Tuck: Improving the quality of bread making flour: a case study L Endrenyi: An approach to the evaluation of individual bioequivalence M S Patel: Step-wise screening with unequal prior probabilities and with errors in observations</p>	<p>P Hougaard: Heterogeneity models of disease susceptibility with application to diabetic nephropathy J J Chen: Dose-response modeling of growth for developmental toxicity K Dear: Iterative generalized least squares for meta-analysis of survival data at multiple times R Gentleman: Multi-state Markov models for analyzing incomplete disease history data with illustrations for HIV disease R Elashoff: Application of multi-stage Markov modelling to malignant melanoma progression</p>

Friday 3:00 - 4:30

<p><b>C43: Survival Analysis 2</b></p>	<p><b>C44: Bioassay</b></p>	<p><b>C45: Miscellaneities</b></p>	<p><b>C46: Estimation</b></p>
<p>B Carstensen: Fitting regression models to interval censored survival data  G Anderson: On the use of covariate in proportional hazard models for randomized clinical trials H van Houwelingen: Construction, validation and upgrading of a prognostic model for kidney graft survival C Quantin: A semi-parametric extension of the proportional hazards regression model</p>	<p>A Volund: Dose response surface bioassay  J Fenlon: A generalization of the one-hit model for insect virus bioassay K F O'Brien: A comparison of methods for estimating insulin sensitivity B Leroux: Biologically based dose-response models for developmental toxicology</p>	<p>A M Hart: The inadequacy of the correlation coefficient to show (lack of) linkage between multiple quantitative traits F Lad: The timing of whale strandings within lunar cycles: computing mixture distributions ... M R Estareles: Factors affecting attitude towards AIDS sufferers, homosexuals and drug-abusers: ... N S Urquhart: A sensitivity analysis for an augmented serially alternating design for detecting ... G M Rao: Improvement by multistage selection in non-normal populations</p>	<p>K Withers: Distributions of extremes when a trend is present G Hepworth: Confidence intervals for proportions estimated by group testing D Rhoades: Some methods for homogenising meteorological records M Miura: Measuring the spinning behaviour of silk worms and analysis of shape H Neudecker: Mathematical properties of the variance of the multinomial distribution E V Kumar: Branch sampling for estimating the number of fruit on a tree</p>

## Design Problem: Ruakura sports day

See the note by Neil Cox in the last *Newsletter*. Only one person sent in an improved solution to this problem; is this because no others were interested or because others were unable to produce a nice solution to this important problem? Donal Krouse's solution is as follows:

After a quick and unsuccessful attempt at trying to modify some standard and non-standard designs I resorted to brute force methods. I tried a two-stage approach:

1. Enumerate all incomplete block designs for events within rounds, ie, find all non-isomorphic IBD ( $v=5, b=5, r=3, k=3$ ) designs.
2. For each design from 1, enumerate all possible plays (I calculate there are no more than 6,129,900).

For the first stage I find only two possibilities, viz,

ABC		ABC
ABD		ABD
ACE	and	ABE
BDE		CDE
CDE		CDE

Note the second design has a repeated block.

Using a fairly unsophisticated pascal program but a fast Sun, after 2 minutes CPU I was surprised to find no solutions in which every pair of teams played much less a design meeting your optimality criterion. The best I could find were designs with 56 of the possible 66 pairs occurring. I guess I made a mistake somewhere...but... I did find an 'improved' design:

Round	Event	teams
1	A	1 2 3 4
	B	5 6 9 10
	C	7 8 11 12
2	A	5 6 7 8
	B	1 2 11 12
	D	3 4 9 10
3	A	9 10 11 12
	B	3 4 7 8
	E	1 2 5 6
4	C	2 4 6 10
	D	1 5 8 12
	E	3 7 9 11
5	C	1 3 5 9
	D	2 6 7 11
	E	4 8 10 12

With this design each team plays 9 other teams; of the 66 possible team pairs 54 occur and no pair occurs more than 3 times. The corresponding figures for the current design are: teams play from 7 to 10 others; of the 66 possible team pairs 50 occur and no pair occurs more than 3 times.

A detailed break-down of pair occurrences is

Pairs	Current Design	Alternative Design	Alternative + extra round
0	16	12	0
1	20	30	42
2	20	12	12
3	10	12	12

The third column is obtained by augmenting the design with the extra round

1 7 10, 2 8 9, 3 6 12, 4 5 11

Conclusion: The organisers came up with a good design. I'd like to know what heuristics they used!

## LISTSERV and STAT-L

Many academic and governmental computer sites throughout the world run software called LISERSV which maintains lists of email addresses of people interested in particular topics. The software runs a kind of bulletin board or continual conference by accepting messages from people on the list [called 'subscribers'] and broadcasting the messages to all those on the list. Many of the lists are also readable through Usenet news at institutions which offer this. If you have access to the list that you are interested in by this means you will not need to subscribe to the list.

Many NZSA members may be interested in the list STAT-L, which is maintained at McGill University in Montreal. To become a subscriber to this list send the one-line email message SUBSCRIBE STAT-L to the address LISERSV@VM1.MCGILL.CA or LISERSV@MCGILL1

You will get a message in return that will get you started. Messages that you want distributed should be sent to STAT-L@MCGILL1.

LISERSV software is running on VUW.AC.NZ and for general information about the syntax for using the software this would be the cheapest source. Try there first. However I have often been disappointed by this machine. (Check with me for examples.)

Rather than incur the charges from having multiple copies of email being sent from Canada to everyone at an institution who wants them it is probably better to have them go to one person only. If there is a lot of demand for this list it may be possible to set up a copy of the STAT-L list on a NZ machine to do the mailing to local subscribers.

This just scratches the surface of the information that you can get electronically, but it should be enough to start you off.

---

Here is an item I posted recently on STAT-L.

It would be a disgrace for the statistical profession if any true null hypothesis were ever wrongly rejected by an approved statistician, so I have a modest proposal to make this state of affairs unlikely and so bring our profession to new heights of public respect.

The idea is to Bonferonize all inferences published from the date of the inception of the scheme ad infinitum.

We will base the allocation on the geometric series:

$$$$$ \Sigma_{n=1}^{\infty} 2^{-n} = 1 $$$$$

Each statistician to be registered must purchase a personal alpha from the authority to be created. The alphas would be available in sizes  $2^{-n}$  starting at  $n=6$  so that the total of the sold personal alphas would be less than  $1/32$ . The authority would distribute the alphas on a 'more market' basis by auctions, tenders, etc. Each statistician, when approving a significance claim would use as level their own personal alpha divided by 2, 4, 8, etc. Each significance test would be logged with the central authority.

There would be a market in 'second-hand' alphas like that in personalized 'vanity' car plates. A thoughtful parent may well secure their child's future as a statistician by purchasing and laying aside an alpha for their child.

As a special concession it will be possible to use Milton Friedman's nonparametric two-way ANOVA without dividing one's alpha by 2.

Some may feel that this will lead to rather conservative inferential behaviour, but I feel that conservatism is nothing to be ashamed of and that protection against false claims is something worth making a stand about.

Murray Jorgensen

## Members' News

### Canterbury

John Deely recently returned from study leave in the US. He worked with Bert Keats on a Bayesian approach to reliability testing. He also attended several conferences, the highlight being the Robust Bayesian Conference in Milano. Of course, en route it was necessary to journey through Chianti country. The Conference was a great success. Murray Smith is currently in the US working with Jim Berger on a Ford emissions project. Graham Wood returned recently from a global optimisation conference run by the Siberian Energy Institute on the shores of Lake Baikal. They toured for three days on the lake, courtesy of an entrepreneurial mathematician who had bought a gun boat across from the Volga (mathematicians are paid a pittance in Russia now, so are leaving the hallowed profession). They also managed to get lost on the lake... did you know it contains 18% of the world's fresh water? (with that much water, are you surprised? - ed.)

We now have an "outreach" TQM programme swinging along for businesses in Cauty. A course beginning in 10 days is fully subscribed (25 participants) and a second for February is already sold out.

We are just coming to the end of a bumper fourth year crop of statistics students. May such special cause variability be seen more regularly in future.

Graham Wood

### Waikato

The Waikato team are busy preparing for IBC92. Reports of the large ozone hole for IBC92 in the *NZ Herald* on September 19 warned that "Extra precautions would be needed for a few days in early December while the Ozone hole passed over New Zealand." Great for the Tongariro walk!

Bill Bolstad visited Stanford and gave a paper at the ASA meetings in Boston in August. Barbara Dow is on leave to have her second child.

David Ryan and Simo Puntanen visited and presented seminars. Ken Russell will be visiting for 3 months after IBC92.

### Applied Mathematics Group

AMG has moved from Victoria University to Gracefield. The mailing address is AMG, Industrial Research Limited, PO Box 31 310, Lower Hutt. Phone IRL (04) 566 6919, Fax AMG (04) 569 0003.

### NZDoS

The old Math Stats Branch has bifurcated into the Survey Methods Division managed by Helen Stott and reporting to the Group Manager Survey Management, Ron Welply, and into the Analytical Support Division managed by Vince Galvin and reporting to the Group Manager National and Regional, Dennis Trewin. However, at the moment there are few noticeable changes in what we're doing or where we're sitting.

Debra Taylor has returned from overseas leave to take up a Senior Mathematical Statistician position under Helen Stott. Frank Nolan was farewelled as Manager of Math Stats. He is now Manager Contracts, but as yet has no hitpeople to enforce them.

We held our annual staff training week (actually four days but that's probably equal to the old week under the new public service conditions) in October at Christchurch. This was the first time it has been held outside Wellington and had nothing to do with hoping to have skiing lessons in the square at lunchtimes. Frank Lad from the University of Canterbury gave two interesting talks on Subjective Probability.

Robert Templeton is away in Guam for the South Pacific Commission giving a course on statistics to Government employees. We're not sure whether this is a good method of weaning him off OE! Gary Dunnet presented a paper at the First Blaise Users Conference held in Voorburg Netherlands in mid October. Len Cook attended the meeting of the International Association of Official Statisticians in Turkey in September as well as visiting the Netherlands Central Bureau of Statistics and the British OPCS.

Alistair Gray, Survey Methods/Analytical Support

### Lincoln CRIs

Little varies at Lincoln, but this in itself is news! Andrew Wallace (ex-DSIR) is now in the Crop and Food CRI, while David Baird, Lesley Hunt and myself (ex-MAF) are in the AgResearch CRI. The smaller Hort+Research CRI is largely serviced by the AgResearch biometricians, who are becoming adept at invoicing (on an hourly basis). The other CRI at Lincoln, Landcare, we see little of biometrically. The grand office shuffle has left us largely unmoved; our timesheets have seen only minor changes; we have lost some clients but gained others; statistical work still seems to be in demand. All in all, we feel quite fortunate that our little biometrical island has not been eroded by the torrents of change!

Dave Saville

## Members' News

### VUW ISOR

ISOR recently celebrated a double anniversary - one year as a separate department and one year in the Cotton Building. Despite much wailing and gnashing of teeth both of these changes seem to have been very successful. To mark the occasion an ISOR Quiz Night was held and a few staff headed off to Ruapehu on a ski trip.

As always there is a fair amount of staff movement. We will be sorry to see Rona Bailey and Matthew Hobbs leave at the end of this year. However we are lucky to have two new arrivals. Dr. Yu Hayakawa from Berkeley arrived in September and has already been subjected to a term of lecturing. Her interests are in OR, network and reliability theory. Dr. Thomas Mikosch (ETH, Zurich) timed his arrival superbly to coincide with the end of term. Thomas is partly involved with the Financial Mathematics program and his interests are in time series and asymptotic theory. A third position is currently being advertised.

Other staff news: Professor Richard Lehmann from the US is visiting ISOR for a year. Peter Thomson is still in Europe having suffered the awful hardship of an S Conference in a French chateau. Ray Brownrigg also attended. Tony Vignaux attended the maximum entropy conference in Paris and Peter Smith drew the short straw with a Bayesian Conference in Nottingham!

Back home we have plans to create a second stream for our large first year service course in statistics. The ISOR Computing Laboratory now houses a Sparc 10 which is soon to become a multiprocessor. Various determined individuals have submitted applications to the great FfRST funding scheme. I have it on good authority that FfRST is Albanian for LOTTO. On the consulting side we are performing large chunks of external consulting largely through the capable support of our graduate students. The Internal Consulting group is plugging SYSTAT as its preferred PC Package and Sathi has been running SYSTAT courses.

Peter Smith

### Otago

David Fletcher reports as we go to press that Laimonis Kavalieris is going on leave next year to ANU. Fred Lam has had a baby boy (Christopher). Russell Millar has shaved off his beard since arriving in sub-tropical Otago.

### Auckland

Ross Ihaka heads the list of newsmakers this month with his not-so-secret marriage. Ross let it slip in the company of Peter Danaher that he was getting married quietly on a Friday afternoon. This was counterbalanced with a noisy lunch the day before with all the Statistics Unit. He is the third statistician to get married in the last year. We will soon be scanning the Guinness Book of Records to see if such a feat has been accomplished in the past. Odds are, it hasn't. Alan Lee is on sabbatical, headed for Southampton (soon).

Our first year statistics course was examined recently. The 2300 students used up every available lecture theatre on campus. (could be Guinness Book material here too). While we're bragging, Auckland had its wettest August in history this year!

Presently, Simo Puntanen is visiting us from Finland. He's been working on matrix algebra problems and hopes to have them all solved before his talk at the satellite IBC conference in December. Steve Thompson is returning to the US and Henry Moolman is going back to South Africa. The numbers in the Statistics Unit will swell soon with the arrival of Robert Gentleman and Ilze Ziedens.

Peter Danaher returned from three months leave, looking tanned and refreshed. He spent six weeks in the U.S. (at Vanderbilt) followed by six weeks in the U.K., with a small diversion to Greece for some non-statistical exercise in the sun and surf.

### Massey

We are in the final stages of assessing applicants for two new lectureships, though housing them during the next two years (until the new building for Mathematical and Information Sciences is completed) may prove difficult. Shall we share rooms, or divide present rooms into cupboards, or do without toilets? Jeff has returned from his exhaustive tour of US and UK. The organisation of statistical advisory services was one area he studied, providing background just in time to optimise our payoff (or minimise our losses) from the FfRST lottery. To celebrate surviving two years in the chair Jeff is giving an inaugural lecture on November 20th. Doug Stirling is off again to Wollongong for a couple of months (December/January) to participate in a project there for teaching statistics. His program, Models'n' Data, is to be an integral part of a major multimedia teaching system. We are looking forward to a busy December with several visitors before and after IBC - David Hand, Yoshiyuki Fukoba, Shayle Searle, Peter MacDonald, JP Singh and Dennis Cook. Apologies now for the absence of Christmas Cards from Palmerston North.

Greg Arnold

## Members' News

### Travel Report

Katrina Sharples returned to Dunedin after a most enjoyable trip. Although sunny Tucson's entire annual rainfall arrived during our stay, we did at least have perfect weather in Seattle. Deborah Donnell and Andrew Bruce seem to have settled in well. They have a lovely house and have discovered all the good local breakfast spots.

The joint meetings in Boston were very good. I heard a rumour that Bill Bolstad would be there, but missed him completely in the mass of 3,000 statisticians. Quite a bit of time was spent walking backwards and forwards between the conference hotels, which could have been quite pleasant if it hadn't been through a construction site. I had my usual difficulties deciding which sessions to attend, but managed to find some good ones. Scott Zeger gave an excellent discussion to a session on panel and longitudinal data in economics and biostatistics. It is very satisfying to see the convergence of areas in this way - it seems to happen all too rarely.

The European Meeting of Statisticians in Bath was on a different scale. It got off to a rather unfortunate start with a plenary talk which was virtually unintelligible to anyone not working in the field (image analysis) - as evidenced by the large percentage of the audience with their noses in their abstract books. But there were many good sessions. Norm Breslow, David Firth and Peter McCullagh provided an excellent one on extensions to generalised linear models. David Spiegelhalter gave a wonderful talk on a Bayesian approach to monitoring clinical trials which (with an apology to the real Bayesians in the audience) included a frequentist interpretation of Bayesian stopping rules. Dennis Lindley gave the R.A. Fisher memorial lecture, and Persi Diaconis gave another entertaining talk on card tricks, providing some great insight into the Gibbs sampler in the process. Bath was a wonderful setting for the conference, and my only disappointment was that the coffee shop in Waterstones bookshop was closed for renovations that week!

Katrina Sharples

### ICME-7

The Seventh International Congress on Mathematical Education (ICME-7) was held in August in Quebec, Canada. This four-yearly congress is the principal international mathematics education conference and New Zealand is usually very well represented. This year was no exception with New Zealand fielding 40 of the 3000 delegates who attended. Several New Zealanders had important roles to play, notably Gordon Knight, as chief organiser of Working Group 20: Mathematics in Distance Education; and Bill Barton as chief organiser of Topic Group 4: Indigenous Peoples and Mathematics Education. NZSA was represented, among others, by Sharon Forbes who adopted a prominent role in the Women in Mathematics Education sessions both in a panel discussion and by giving a paper; and Jo Higgins (Wellington College of Education) who gave two talks in the primary area. Six other New Zealanders

gave invited presentations and a New Zealand Maori group gave the reply to the Inuit introduction to Topic Group 4.

Working Group 12 (Probability and Statistics for the Future Citizen) was a particularly well attended group whose four sessions seemed to satisfy those who participated and was not rent by the ideological splits evident in some other areas. Whilst this was obviously a good thing, it to some extent reflects the naivete of the statistics education community who tend to lack a sound theoretical base and prefer to operate 'by the seat of their pants'. I gave a presentation in this group which seemed to be well received.

Considerable interest was shown in New Zealand's new curriculum especially the statistical content as we are still way ahead in this area particularly with the amount of statistics we offer at primary school.

Many old friends last seen at ICOTS were there: David Moore, Manfred Borovnik, Mary Rouncefield, Anne Hawkins and Lionel Pereira-Mendoza. Lionel is planning to visit New Zealand in February, spending one week in Auckland (with Bill Barton and Maggie Haymes) and one in Wellington (with Jo Higgins and myself).

Most New Zealanders that I spoke to found it a very worthwhile conference and have returned confident that we are on the right track, especially in statistics education. Megan Clark, Mathematics Education Unit, VUW



## MASSEY UNIVERSITY Postgraduate Diploma in Operations Research

The Department's of Mathematics, Statistics and Production Technology through a recently formed Operations Research Board of Studies have established a Diploma in Operations Research, primarily for students wishing to pursue part-time study extramurally. The entry requirements are a bachelors degree, or equivalent, and experience in quantitative work. Course work for the Diploma includes introductory OR papers (if not already credited), a selection from: advanced level papers in deterministic and stochastic OR; applications papers from Production Technology, Economics, Finance and Agricultural Business together with supervised project work in an area of interest of the student. Expected completion time is about three years.

For more information about the DipOpRes, or about internal or extramural Operations Research study at Massey University, contact:

Dr John W Giffin  
Department of Mathematics  
Massey University  
Private Bag 11-222  
Palmerston North

Telephone: 64-6-356-9099, extn 8107

## Satellite Conferences IBC92

Nine conferences and workshops have been planned around IBC92. A 10 page update on the satellites with registration forms was mailed to NZ members in August and is summarised here. Further information may be obtained by contacting the organiser of each conference.

### Satellite meeting on Biostatistics

**30 November to 2 December 1992, Newcastle**

Centre for Clinical Epidemiology and Biostatistics, University of Newcastle, Australia. Topics include: genetic epidemiology, meta-analysis, issues in sample size determination, cross-over trials, quality of life issues, statistical issues in new drug approval, data integrity and AIDS research in Australia. Invited speakers include R Elston (USA), M Kenward (UK) and L Fisher (USA).

For further information contact:

Kate Boyle, Department of Statistics, University of Newcastle, Newcastle, NSW 2308, Australia Phone +61 (49) 215 520, Fax +61 (49) 684 742

### Practical Applications of the Bootstrap

**2-4 December 1992, Canberra**

Australian National University in Canberra. Keynote speakers include Rudolf Beran, Berkeley; Richard Olshen, Stanford University; Nick Fisher, CSIRO, Sydney; Tom Louis, University of Minnesota (Biostatistics); and Peter Hall, ANU. Registration is free.

For more information contact:

Dr. Kim-Anh Do, Statistical Sciences Division, CMA, Australian National University, Canberra, ACT2601, Australia, Phone +61 (6) 249 0564 or +61 (6) 258 1708 Fax +61 (6) 249 5549 Email dokstat@durras.anu.edu.au

### Molecular Evolution Workshop

**12-13 December 1992, Rotorua**

The workshop immediately follows IBC92. It will be held in Rotorua at the Forest Research Institute, and will be named in honour of the late Allan Wilson. It is sponsored by the US National Science Foundation. Lunches and coffee breaks will cost \$NZ 30.

For more information contact:

Dr Bruce Weir, North Carolina State University, Raleigh NC 27695-8203, USA. Fax +1 (919) 515 7591 Email nbswire@ncsumvs.bitnet

## International Workshop on Matrix Methods for Statistics

**4-5 December 1992, University of Auckland**

Co-sponsored by the Institute of Mathematical Statistics (IMS) and International Linear Algebra Society (ILAS) to foster the interaction, in an informal setting, of researchers in the interface between matrix theory and statistics. We propose that there be no parallel sessions, and that all, or almost all, the talks be of 20 minutes duration. Garry Tee (Auckland) has been invited to talk about the work of Alexander Craig Aitken (1895-1967), and his plans to publish Aitken's Collected Papers. We plan to charge a US\$20 registration fee.

If you are interested in participating in this workshop please contact: George PH Styau, Dept. of Mathematics and Statistics, McGill University, Burnside Hall 1240, 805 ouest, rue Sherbrooke, Montreal, Quebec H3A 2K6, Canada; Fax: +1 (514) 398-3899 Email: mt56@musica.mcgill.ca or Alastair J Scott, Dept. of Mathematics and Statistics, University of Auckland, Private Bag 92019, Auckland; Fax +64 (9) 373 7445 Email: scott@mat.aukuni.ac.nz.

## International Biometric Conference

**7-11 December 1992**

**University of Waikato**

## International Conference on Environmental Biometrics

**14-15 December 1992, Sydney, Australia**

The meeting provides an opportunity to improve coverage of the increasingly important role that statistical methods play in environmental studies of biological and physico-chemical systems. There will be a half-day session on each of the following topics: Environmental monitoring, assessment and prediction of change; Statistics in environmental health; Environmental sampling; and Statistical analysis of environmental data. These sessions will include invited and contributed talks. Invited speakers include: Roger Green (University of Western Ontario), A H El-Shaarawi and Sylvia Esterby (National Water Research Institute, Canada), David Hoel and Walter Piegorsch (National Institute of Environmental Health Sciences, USA), G P Patil (Pennsylvania State University), John Evans and Brian Coote (Sydney Water Board) and Louise Ryan (Harvard and Dana-Farber Cancer Institute, USA)

For more information contact: John C. Evans, Water Board, PO Box 73, West Ryde 2114, Australia; Fax: +61 (02) 334 0817.

## **IBC92 satellite conferences**

### **Analysis of repeated measurements**

#### **data: an overview**

**3-4 December 1992, Hamilton.**

The workshop will be led by Mike Kenward of Reading University, an authority on the subject, and author of a number of important papers in this area. Day 1 will overview different approaches to analysing repeated measurements data. Day 2 will focus on specialised topics and recent research.

The fee is \$200 for both days and \$100 for day 2 only (with a 50% discount for students). Lunch and a full set of notes, which are the basis of a book being written by Mike Kenward, are included. If you want to present a 15 minute talk please enclose an abstract with your registration.

For more information contact:

Dr David Fletcher, Department of Mathematics & Statistics, University of Otago, Box 56, Dunedin, Fax +64 (3) 479 8427, Phone +64 (3) 479 7804, Email dfletcher@otago.ac.nz

## **Methods for correlated data: current research**

**14-16 December 1992, Queenstown.**

The focus will be on current research in different aspects of the analysis of correlated data, with emphasis on applications in epidemiology and medicine. Invited speakers include Norman Breslow (University of Washington), Kung-Yee Liang (Johns Hopkins University), Michael Kenward (University of Reading), Alastair Scott (University of Auckland) and Juni Palmgren (National Public Health Institute, Finland). Specific topics will include methods for discrete data or survival data, repeated measurements, estimating equations and random effects models.

For further information contact

Katrina Sharples, Department of Preventive and Social Medicine, University of Otago Medical School, Box 913, Dunedin. Email katrina@otago.ac.nz, Fax +64 (3) 479 0529, Phone +64 (3) 479 7221.

## **2nd Australasian Genstat Conference**

**14-16 December 1992, Rotorua.**

The conference aims to provide a forum for Genstat users to report on their research and consulting using Genstat, to exchange ideas, make suggestions, and to see the latest Genstat developments.

The Conference will take place at the Forest Research Institute, Rotorua. Registration is on Monday 9am-10am, and the conference will end at midday on Wednesday. Registration (which includes lunch, tea and coffee) is NZ\$220.

The Programme will contain invited and contributed papers on new statistical facilities in Genstat, developing statistical methods using Genstat, innovative applications of Genstat, use of Genstat for teaching and future developments. There will be demonstrations of new facilities in Genstat 5 Release 3 and in the latest procedure library. Guidance will be given on extending or customizing Genstat and on linking Genstat to other software. There will be opportunities to exchange ideas with other users, to obtain advice from members of the Genstat 5 committee - and to make suggestions in return.

If you want to present a poster paper contact Roger W Payne or David B Baird as soon as possible.

For further information and a registration form, please contact: Roger W Payne, Statistics Department, Rothamsted Experimental Station, Harpenden, Herts, AL5 2JQ, UK (Email: Payne@resa.afrc.ac.uk) or David B Baird, AgResearch, Box 24, Lincoln. (Email: Bairdd@invermay.cri.nz).

## **Dynamic graphical analysis of statistical models: short course**

**Sunday 6 December 1992, Hamilton.**

Professor R Dennis Cook, University of Minnesota, will conduct this short course at the University of Waikato. He is a leading authority on the use of modern graphical methods in analyses based on statistical models. Graphical methods will be demonstrated on a Macintosh using XLISP-STAT, a graphics programming environment developed recently by Luke Tierney, University of Minnesota. This environment allows easy access to virtually all the modern graphical methods - high dimensional rotation, animation, brushing, linking, identification, touring, slicing and so on. New theory and methods for graphical data analysis will be explored. An important feature of Professor Cook's work is utilising and developing new methods to create practical, usable tools for consulting statisticians.

Participants will receive information on how to obtain XLISP-STAT, without charge, for Macintosh, PC or Unix. More information may be obtained from the IBC92 secretary. You may register for this short course (\$NZ 75) now on the IBC92 registration form.



Electronic mail addresses for NZ Statisticians, etc  
Version : November 2, 1992

Abbreviations used :

a = aukuni.ac.nz      c = canterbury.ac.nz  
chm=chmeds.ac.nz    cr = cri.nz  
f = mof.govt.nz  
frc = frc.maf.govt.nz    gr = grace.cri.nz  
i=invermay.cri.nz      l = lincoln.ac.nz  
lev = levcri-1@lan.lincoln.cri.nz  
lcn = lcncri-2@lan.lincoln.cri.nz  
m = massey.ac.nz      o = otago.ac.nz  
r = ruakura.cri.nz     s = stats.govt.nz  
v = vuw.ac.nz          w = waikato.ac.nz  
wa=warc.cri.nz      wnm = wnmeds.ac.nz

Auckland

Craig Ansley      cfa@comu1.a  
Rod Ball          rod@marc.cr  
Steve Black      sblack@ccu1.a  
Constance Brown    brown@mat.a  
Peter Danaher     danaher@mat.a  
Ross Ihaka        ihaka@mat.a  
Alan Lee          lee@mat.a  
John Mairdonald    john@marc.cr  
Roger Marshall    rmarshall@ccu1.a  
Brian McArdle     bmca@a  
Gita Mishra       mishra@mat.a  
Peter Mullins      mullins@mat.a  
Elizabeth Robinson    biostats@ccu1.a  
George Seber      seber@mat.a  
Alastair Scott    scott@mat.a  
Alistair Stewart    astewart@ccu1.a  
Joanna Stewart    biostats@ccu1.a  
John Thompson    cotdeath@ccu1.a  
Steve Thompson    skt@mat.a  
Chris Triggs      triggs@mat.a  
Chris Wild        wild@mat.a  
Jia-fang Zhang    jia-fang@ccu1.a

Hamilton & Rotorua

Dieter Adam      kdadam@w  
Ian Andrew        andrewi@fri.cr  
Earl Bardsley     web@w  
Andy Begg        a.begg@w  
Bill Bolstad      w.bolstad@w  
Sue Carson        carsons@fri.cr  
Neil Cox          coxn@r  
Barbara Dow      dowb@r  
Dave Duganzich    duganzichd@r  
Mary Foster       t.foster@w  
Les Foulds        l.foulds@w  
Oscar Garcia      garciao@fri.cr  
Isabelle Gravett    gravetti@r  
Harold Henderson    hendersonh@r  
Michael Hong      hong@fri.cr  
Warren Hughes    w.hughes@w  
Lyn Hunt          lah@w  
Nye John          nye@w  
Dave Johnson      johnsond@r

Murray Jorgensen  
Mark Kimberley  
Jeff Knowlton  
Ray Littler  
Graham McBride  
Judi McWhirter  
David Miles  
Ian Pool  
David Scott  
John Scott  
Fay Sharples  
Martin Upsdell  
John Waller  
David Whitaker

maj@w  
kimberlm@fri.cr  
jknowlton@w  
littler@w  
mcbride@w  
judi@w  
dbmiles@w  
i.pool@w  
nzdstats@matai.v  
j.scott@w  
fay@w  
upsdellm@r  
wallerj@r  
whitaker@w

Palmerston North & Levin

Greg Arnold      g.arnold@m  
Paul Austin      p.austin@m  
Richard Barker    r.j.barker@m  
Dick Brook        r.brook@m  
Nihal De Silva    hrpnds@pvn.palm.cr  
Helen Dick        ?  
Howard Edwards    h.edwards@m  
Don Esslemont    d.esslemont@m  
S. Ganesalingham    s.ganesalingam@m  
S. Ganeshanandam    s.ganeshanandam@m  
Jeff Hunter        j.hunter@m  
Z. Kearns        z.a.kearns@m  
John Koolaard     j.p.koolaard@m  
Chin Diew Lai     c.lai@m  
Charles Lawoko    c.lawoko@m  
Anthony Lewis    a.lewis@m  
Kim Lim           t.k.lim@m  
Jenni Madgwick    ?  
Terry Moore       t.moore@m  
Hugh Morton      h.morton@m  
Gordon Smith     g.e.smith@m  
Doug Stirling     w.d.stirling@m  
Sandy Wright      wrights%lev

Wellington & Nelson

Peter Alspach     hrrpaa@pvn.palm.cr  
Mark Arthur       marthur@s  
June Atkinson     ?  
James Barton      bartonj@f  
Ray Brownrigg    ray@isor.v  
Paul Brown        pbrown@s  
Soo Cheng          ?  
Megan Clark       Megan.Clark@isor.v  
Len Cook           lcook@s  
Patrick Cordue    plc@frc  
Sarah Crichton    scrichton@s  
Robert Davies     robertd@kauri.v  
Brian Dawkins    brian@isor.v  
Garry Dickinson    gdickinson@s  
Shirley Dixon     sdixon@s  
Mike Doherty      mdoherty@s  
Ian Doonan        ijd@frc  
Gary Dunnet       gdunnet@s  
L. Evans           levans@matai.v

Chris Francis  
Vince Galvin  
Dave Gilbert  
Alistair Gray  
Anthony Gomez  
David Fitzgerald  
David Harte  
Doug Harvie  
Steve Haslett  
Doris Hoermann  
Pru Hyman  
Fraser Jackson  
Donal Krouse  
Rodney Lewington  
Roger Macky  
Kris Mason  
Paul Maxwell  
Minoo Meimand  
Phillip Morrison  
Shirley Pledger  
Gordon Purdie  
Diane Ramsay  
Ross Renner  
David Rhoades  
Penny Risdon  
Leigh Roberts  
Mick Roberts  
Bernard Robertson  
Michael Ryan  
Clare Salmوند  
Tapas Sarkar  
Gurusingham Sathiyandra  
Peter J. Smith  
Jonathan Stone  
Helen Stott  
Debra Taylor  
Robert Templeton  
Jean Thompson  
Peter Thomson  
David Vere-Jones  
Marianne Vignaux  
Tony Vignaux  
Ron Welpy  
Max Wigbout  
Kit Withers  
Karen Wong  
Zheng Xiao Gu

podcf@frc  
vgalvin@s  
podjg@frc  
agraj@s  
srgiajg@grv.gr  
dfitzgerald@s  
?  
doug@isor.v  
steve@isor.v  
dhoermann@s  
hymanp@matai.v  
jackson@matai.v  
donal@maths.gr  
rlawington@s  
rmacky@s  
masonk@wa  
pmaxwell@s  
mmeimand@s  
phiz4523@matai.v  
shirley@isor.v  
purdie@wnm  
dramsay@s  
ross@isor.v  
d.rhoades@maths.gr  
risdonp@wa  
leigh@isor.v  
robertsm@wa  
bernard@frc  
salmوند@wnm  
tapas@isor.v  
sathi@isor.v  
jeff@isor.v  
jonathan@isor.v  
hstott@s  
dtaylor@s  
rtempleton@s  
nzsa@isor.v  
peter@isor.v  
dvj@isor.v  
vignauxm@frc  
vignaux@isor.v  
rwelpy@s  
?  
kit@maths.gr  
kwong@s  
zheng@isor.v

Christchurch  
David Baird  
Penny Barber  
Pat Coope  
Easaw Chacko  
John Deely  
Chris Frampton  
David Giles  
Patrick Graham  
Martin Hamilton  
R. Harrison  
Lyn Holland

bairdd%lcn  
pbarber@s  
pcoope@s  
pec@math.c  
jdd@math.c  
framptoc@f  
d.giles@c  
pgraham@chm  
mhamilton@s  
r.harrison@c  
l.holland@l

Anne Holwell  
Lesley Hunt  
Frank Lad  
George Love  
Peter McNaughton  
Frank Nolan  
Richard Penny  
Andrea Piesse  
Steve Ranford  
Bruce Robson  
Dave Saville  
Philip Schluter  
Dick Sedcole  
Murray Smith  
Andrew Wallace  
Bert Ward  
Elisabeth Wells  
Graham Wood  
Jim Young

aholwell@s  
huntl%lcn  
frl@math.c  
g.love@l  
p.mcnaughton@l  
fnolan@s  
rpenny@s  
arp@math.c  
s.ranford@l  
b.robson@l  
savilled%lcn  
pjs@math.c  
d.sedcole@l  
mhs@math.c  
andrew@crop.lincoln.cr  
b.ward@l  
stats1@chm  
grw@math.c  
jyoung@s

Dunedin

Ken Dodds  
David Fletcher  
Liliana Gonzalez  
Peter Herbison  
Peter Johnstone  
Laimonis Kavalieris  
Fred Lam  
Roger Littlejohn  
Bryan Manly  
Steve Marshall  
Russell Millar  
Brian Niven  
Graham Price  
Katrina Sharples  
George Spears  
Hamish Spencer  
Sheila Williams

doddsk@i  
dfletcher@o  
liliana@o  
prev12@o  
johnstonep@i  
mathlk@o  
math19@o  
littlejohnr@i  
math05@o  
stevemarsh@o  
greebie@o  
math30@o  
graham@o  
katrina@o  
prev01@o  
hspencer@o  
prevsmw@o

Overseas NZSA members

Mark Bebbington    msb@feller.maths.uq.oz.au  
Andrew Bruce        andrew@statsci.com  
Deborah Donnell    deborah@statsci.com  
Agnes Herzberg     herzberg@qucdn.queensu.ca  
Ross Leadbetter    uncmrl@unc.bitnet  
Andrew McDougall    mcdougal@stat.rutgers.edu  
Warren Muller       warren@biomact.biom.csiro.au  
John Rayner        john\_rayner@info-gw.uow.edu.au  
John Reynolds       reynoldsj@agvic.gov.au  
Alice Richardson    ricastat@fac.anu.edu.au  
Ken Russell          kgr@its.uow.edu.au  
Shayle Searle        btry@cornella.cit.cornell.edu  
George Styan        mt56@musica.mcgill.ca  
Bruce Weir           weir@stat.ncsu.edu  
Ian West            ian@elepaio.soest.hawaii.edu  
Keith Worsley        keith@zaphod.math.mcgill.ca

Send additions, corrections and missing first names to Murray Jorgensen, maj@waikato.ac.nz.