

newsletter

Applied Mathematics Group

As part of science restructuring the DSIR Applied Mathematics Group Wellington office has joined the Industry CRI, now called Industrial Research Limited where it will be part of the Measurement, Applied Mathematics and Analysis Group. It will move from Victoria University to Gracefield later this year. The substations at Auckland, Palmerston North and Lincoln will join the Horticulture, Pastoral and Crop CRIs. The Applied Mathematics Group did very poorly in the FRST funding round for next year. I have not yet seen the referees' reports so I cannot comment fully on the reasons. However it seems partly that AMG as presently constituted is not viable under the sector orientation of the present funding system and the current rules as to what is fundable (must not be too close to applications but must not be too far either). There does seem good support for work that is in conjunction with other parts of the Industrial CRI, so that is what the Group will need to concentrate on next year.

(Continued on page 3)

Hot News

On June 16 NZSA Hot News was emailed to the 180 on our email list of NZ Statisticians and to local group coordinators to reach some members not on email. If you didn't see it, the items are updated on the front page of this *Newsletter*.

Email Broadcasts

Occasional email broadcasts from the NZSA will be a good way of getting information out quickly and economically, rather than waiting for the *Newsletter*, to about 180 statisticians. There are about 100 members who are not on email: 57 in Wellington, 15 in Auckland, 10 in Christchurch, 7 in Waikato, 3 in Dunedin, and fewer than 3 in other districts. Mailing *Hot News* to these members may be the best way of getting the news while it is still warm! Send email additions and corrections to maj@waikato.ac.nz.

International Biometric Conference
7-11 December 1992
University of Waikato

IBC92 registration forms are enclosed
Register by September 1 and save

Contributed Paper Abstracts for IBC92
are due by July 31

The deadline for abstracts for the IBC92 has been extended to **JULY 31**. We would like a good showing of locals contributing talks or posters. So you may have a more few days! As the NZSA is meeting in conjunction with IBC92 your paper need not be biometrical - statistical will do! Abstract submission details are in the March 92 *Newsletter*, and are available from the IBC92 Secretary.

IBC92 Registration Snapshot

Registrations for IBC92 are now flooding into the conference secretariat, accompanied by a healthy number and diversity of paper submissions. As at July 9, registrations comprised 82 from Australasia, 72 from North America, 64 from Europe, and 49 from other regions. These 267 participants had offered 240 contributed papers, in addition to the 20 invited papers. At IBC90, in Budapest, over 540 participants presented 194 contributed papers, 29 invited papers, 20 computer and 60 poster sessions.

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President's Column



July 1, 1992 was a very sad day for statistics in New Zealand. This was the day the new Crown Research Institutes (CRIs) came into being, and the day Applied Mathematics Group (AMG), DSIR, ceased to be. This change was especially devastating for statistics. Of the nine statisticians at Wellington AMG, only three were definitely confirmed into positions.

The establishment of CRIs should not, in itself have caused me to write my opening sentence. It should have been possible to maintain a central group of applied statisticians whose focus was methodological development and new ideas on applications of statistics. Sadly, this important facet of applied statistics has not been understood, either by the Foundation for Research, Science and Technology or by Industrial Research Limited (IRL).

I am concerned that the few applied statisticians left in CRIs are likely to be hopelessly overloaded trying to serve their local colleagues and will have little time to keep abreast of new ideas emerging overseas, or time to generate new ideas of their own in an applications environment. This can only have a deleterious effect on our discipline. I find it hard to see how the small, albeit excellent, group of statisticians in IRL can continue the traditional AMG role of being a resource for applied statistics in New Zealand. Maybe the universities can work to fill the gap, but they will need increased resources.

I am particularly dismayed that Industrial Research Limited has decided it cannot support the exploratory data analysis and quality sides of statistics. This comes at a time when the rest of the world is seizing the opportunities such analyses bring to make their businesses more effective. It's great to be creative and it's great to question, but do we, as New Zealanders, always have to go the opposite way to the rest of the world as a matter of course?

The Association will have to step up its efforts to communicate the value of statistics but it is going to be hard — a bit like physiotherapy after an accident. I'll keep trying.

Jean Thompson

The NZSA was founded in 1948. It encourages theoretical and applied statistics in New Zealand. Here is its draft vision and mission for your comment.

NZSA Draft Vision

Within the next two decades, statistical thinking will be the norm in New Zealand.

Statistical thinking is characterised by:

- Use of the scientific method in problem solving
- An appreciation of variability and data, and their impact on decision making

Draft Mission

The mission of the NZSA is to lead New Zealand to value and make intelligent use of statistical thinking and good statistical practice.

We will be a catalyst for change by:

- facilitating the exchange of ideas, experience and expertise, both amongst our members and with the wider community
- encouraging the development of statistical methodology with particular reference to the needs of New Zealand
- encouraging statistical thinking and the intelligent use of statistical methodology in all organizations in New Zealand
- being pro-active in our involvement in education programmes at all levels, with particular emphasis on continuing teacher training and curriculum development
- maintaining high ethical standards within our organization so as to foster the proper use of statistics in the wider community

Reaction at the AGM included: replacing norm with something weaker in the vision and mentioning affirmative action for groups currently unrepresented in Statistics in the mission.

Please send your comments to Alistair Gray.

New Zealand Statistical Association Officers

President: C Jean Thompson

Secretary: Alistair Gray

Treasurer: Antony Gomez

Editors *NZ Statistician*: R Hugh Morton

Newsletter: Peter J Danaher, Harold V Henderson

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Applied Maths Group

(continued from page 1)

Of the 21 science staff at Wellington, 14 staff have transferred to Industrial Research Limit. Three of our four science staff at Auckland transferred to the CRI structure as do the staff at Palmerston North and Lincoln. This leaves the former AMG with 4 staff in statistics, one in computing, 4 in operational research and 5 in mathematical physics. Altogether 6 statisticians and 2 computer people have not found employment in the CRIs. One of the statistics staff will be carrying out research work on contract for the CRI, so will sort-of be half to three-quarters employed, at least for this year. Statistics did not do as badly in the funding as these figures would suggest, but this is the area the CRI board chose to sacrifice. Despite its small size, the new AMG still has a powerful research potential (provided it has a suitable environment to work in). However there is no way it can provide the kind of statistical leadership it has in the past.

I think the Statistics Association has an increased role in maintaining and advancing the use of statistics in New Zealand, where it is just so essential. One of the spin-offs from the break-up is there is quite a powerful independent statistical consulting group evolving in Wellington. Of course they will all work as individuals - but I hope they will at least sometimes work together.

With the reduction in funding and of the size of the Group, it is inevitable the AMG library will come under threat. The library has been funded as an overhead on the Applied Mathematics Group's Crown and commercial projects. FRST seems reluctant to fund libraries directly. The Industry CRI board has placed a priority in maintaining the library. Nevertheless, commercial realities must place it under some threat, without an alternative source of funding.

If you get a chance to lobby, please do so on behalf of the "infra-structure" sciences, like statistics and mathematics; for funding for technology transfer of internationally developed science and for the need for funding for libraries.

Many of you lobbied for us during the setting up of the CRIs. This was partly successful. At least there is an identifiable Applied Mathematics group within the Industry CRI. Thanks for your efforts.

Robert Davies
ex Group Manager AMG and now a private consultant. Email robertd@kauri.vuw.ac.nz

Many of you will have seen Robert on TV or heard him on the radio discussing these changes. We wish him the best in his new ventures.

Editorial

As part of science restructuring into CRIs the DSIR Applied Mathematics Group lost six statisticians. Our best wishes go to them. The lead article and President's column discuss this and some implications.

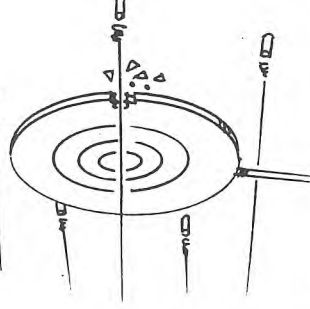
Registrations and papers have been coming in for IBC92. December is going to be Statistics month in Australasia! Around IBC92 are 9 satellite conferences from November 30 through to December 16.

It is heartening to see statisticians like Peter Johnstone honoured (see page 10) for their contribution to science.

Public issues like Electrocorp's "100 year drought" have had some statistical comment in the media from members: Brian Easton on the radio and Ross Ihaka in the July 19 *Sunday Star*.

Ron Sandland, who chairs the Statistical Society of Australia working party on accreditation, updates the Australian situation on page 14. Our two associations will work together on this. What problems are we trying to solve by accreditation? In true TQM style we'll need to identify root causes of problems if we're going to develop permanent solutions. This picture is from *The Team Handbook* by Peter Scholtes

"Ready, FIRE, aim!"



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Statistics Day in May

The NZSA Statistics day on May 15 at Victoria University on Statistical Process Control and Reliability Theory was worth attending.



The speakers (from the left), Chin Diew Lai, Selwyn Gallot, David Rhoades, and Sandy Thayer are standing by a statistical painting. Roger Kissling was there for his talk, but not for his picture.

AGM returns NZSA executive

The NZSA executive were returned for this year, except for Nye John who was not available. Here is the committee (well almost all) looking as young as they did a year ago.



From the left are Vince Galvin, Antony Gomez, Greg Arnold, Jean Thompson, Alistair Gray, Katrina Sharples and Graham Wood.

1993 NZSA Conference
August 25-27
University of Canterbury
Christchurch

Our 1993 conference will overlap and then follow (Wednesday - Friday) the NZ Mathematics Colloquium (Monday-Wednesday) in August 1993. The NZ Association of Mathematics Teachers Conference will run for the whole week. Linking these three conferences will lead to an interesting programme. More details in the next *Newsletter*.

1992/93 Subscriptions Lowered

The AGM in May lowered subscriptions from the present rates of \$37 for ordinary membership and \$48 for overseas membership. The current rates were set in 1989 and apart from a small increase in the overseas rate they have remained constant. Since then the production of the *Newsletter* and *Statistician* have moved from commercial printing firms to the Universities, with lower production costs.

The subscription rates for the financial year April 1992 to March 1993 are:

Ordinary membership \$30

Overseas membership \$35

Student and retired memberships are half these rates.

We have also introduced a subscription rate primarily for overseas agencies, institutions and libraries for the *Statistician* only. This rate has been currently set at \$5 less than the standard rates. Those members that have pre-paid this year's subscription at the old rates will have the difference credited to next year's subscription.

The second proposal approved by the AGM concerns when the subscriptions are to be paid. In the past the subscription rates for the NZSA financial year has been set at the AGM in August of that year. By the time the invoices are sent to the members and returned with the payments we are already at least six months into the financial year. It takes one, possibly two, reminders before the majority of the subscriptions are paid and by then we are near the end of the financial year. Also it has been our policy to let members have up to two years grace in paying their subscriptions before their memberships are cancelled. In a number of cases no payment has been forthcoming for that period and effectively we have lost that income. Others have resigned without sending any payment, possibly believing that the payment due is for next year's subscription and not for the current or past years.

To minimise this effect and to ensure that income for the financial year is available at the beginning of the year, the subscription invoices will be sent no earlier than one month prior to the beginning of the financial year. Future AGMs will approve subscription rates for the next financial year instead of the current year. The Treasurer will present a budget for the next financial year.

Consequently the last AGM also approved the subscription rates for the 1993/94 financial year being that of the current 1992/93 year. Subscriptions for the 1993/94 year will be sent out in March 1993.

Any queries to Antony Gomez, Treasurer, NZSA, Box 1731, Wellington email srgiajg@grv.grace.cri.nz

Education committee

Mathematics in the National Curriculum

The education committee's 15-page response deals with the Statistics strand of Maths in the National Curriculum. Copies of the submission will be distributed to all school teacher members of the NZSA. Other members can request a copy from Mike Camden. Page 1 begins

The central issue

"Our central concern is that New Zealand must have a strong, clear and appropriate curriculum statement, which will drive the real learning curriculum and the assessment processes. We do not want to see assessments driving the real curriculum.

We urge you to make a very serious commitment now to getting this statement right. Much really innovative work has gone into making the draft statement what it is. We do not want this effort to be wasted. If the statement is not right, it will be not right for a long time, and we will have disillusioned teachers and disadvantaged students.

If the statement IS right, it will enable teachers to develop a set of skills in their students which is utterly essential in the critical times ahead. The statement needs to give a strong clear lead to teachers. We propose a programme which, in comparison with traditional statistical programmes, is much more useful and much more enjoyable for both learner and teacher.

We note that the skills of statistical numeracy are

- becoming increasingly important,
- needed by an ever-increasing proportion of the population,
- changing and developing rapidly.

We recommend that research be promoted to identify more clearly which skills of statistical numeracy will be most important in the future.

The curriculum statement needs to give a strong clear lead to teachers. The investigation approach will appear more unfamiliar to many teachers than it in fact is."

And on page 3:

"We totally support the focus on Investigation and Exploration. The process of examining data is more important than the process of calculating numbers from the data."

In the appendix:

"Please ditch the obsession with "How to lie with statistics" (D Huff, 1954) and take the positive view, like "Quality in Data Graphics" (à la Tufte). Students and the public have the impression that graphics are great for lying with. They're no better or worse than words."

Statistics in the National Certificate

The New Zealand Qualifications Authority has been given the responsibility to develop a coherent national framework for all qualifications. Qualifications will be based on units. Credit will be gained by learners who achieve pre-determined standards in individual units. The National Certificate qualifications will cover the lower four of the eight qualification levels in the framework. Advisory groups have been formed to develop and write units in various vocational areas. Writing groups have been convened to write units for school courses.

The first group of vocational units has recently been submitted to the Qualifications Authority for registration. First drafts of the units for school-based courses have been written and circulated to a sample of experienced teachers and educators for comment.

Statistics development has so far been limited to developing units based on the new Mathematics Curriculum being finalised by the Ministry of Education. One draft unit has been based on current form six level work and it is proposed that the Mathematics with Statistics Bursary prescription is effectively split to form two half-year units. Statistics units based on current polytechnic courses will be written in the future. There will be opportunities to register other statistics units on the framework developed with national consultation and approval.

Further information is available from *QA News*, the Qualifications Authority's newsletter, which is published every two months.

Paul Ackerley

New Zealand Social Research Data Archives

The New Zealand Social Research Data Archives has been established at Massey University. Its brief is to collect, clean, and preserve computer-readable data relating to social, political and economic affairs and to make that data available for further analysis.

The New Zealand Social Research Data Archives invites researchers from any discipline in the social sciences to deposit data sets with the Archives. Such data represent a valuable resource which otherwise could disappear. Depositors can stipulate the conditions under which the data sets can be made more widely available.

Both those wishing to deposit or acquire data sets should contact:

Director, New Zealand Social Research Data Archives, Faculty of Social Sciences, Massey University, Palmerston North Fax (06) 350 5627 Email NZSRDA@massey.ac.nz Phone (06) 356 9099

Do I Fit?



Two years ago I joined the paid workforce as a biometrician. At my first gathering of biometricians I was wondering if I had made the right decision. I didn't have a beard but I noticed my new glasses - blue but with steel frames - I belonged! However I have continued to be plagued by doubts and offer my thoughts on this subject.

I once read in this *Newsletter* a suggestion that statisticians may have more than their fair share of INTJ's and being one myself I thought I would reflect on this further. The acronym INTJ is a Myers Briggs classification of 2 possible personality types. The first letter is E or I - extravert or introvert (external versus internal as the source of energy). The second letter is S or N - sensing (bound by facts, based on the actual) or intuitive (metaphor appeals, speculate on the possibilities). The third is T or F - thinking (make decisions based on the impersonal, objective - "head") or feeling (make decisions based on the personal - "heart"). The final letter is J or P - judging (like deadlines, getting things completed, being ordered) or perceptive (like things open, fluid). Obviously these are broad generalisations and the classifications are measured on a continuum for each pair of characteristics.

It is pretty obvious that most biometricians are introvert - we work alone, we like space and private places in the mind, other people drain our energy, and we are energised by ideas and what's going on in our minds. It is also apparent that we are mainly J's - we like order and seek it in our work.

It is thought that only about 1% of the population are INTJ and that these are in the ratio 3 to 1, male to female. So when I ask "Do I fit?" it is a question asked frequently by INTJ's. In my informal research I have discovered that about half of the MAF biometricians fit this category.

In my observations of biometricians I have noticed that we like rules - however we like only the rules that make sense to us - and what's more we prefer to make our own. I have my own rules for hanging out the washing - I have thought it out very carefully and when someone else does it I exercise considerable restraint by not rushing out and changing it immediately! Tied in with rules are attitudes to authority. I decide whether what I do is OK - not someone else.

Biometricians serve. At first I was very impressed by this, but I came to realize that we service our clients in a way that suits us! It is very difficult for us to give ourselves to what someone else wants and to suspend our critical faculties and actually serve.

Evidently we give people interesting impressions. They get the feeling that we can see right through them and find them lacking somehow! This makes others feel distant from us, and they think that we are difficult to satisfy - nothing is ever quite right. In communications we may assume that our position is so obvious that we don't state it, and then get very upset when someone speaks for us. We find it difficult to appreciate someone verbally, believing that it is so obvious that there's no point in saying so. Hence our partners may feel that we don't "love" them because we rarely say so, or don't see the need to observe certain rituals that are important to them. We do not enjoy physical contact except with a chosen few.

It is a characteristic of our group that we like to say something only once. I have learned over the years that students only hear what is relevant to them at the time and that repetition is necessary. When we are teaching we are subject rather than people orientated and a class may not have the same fascination with a subject that we have.

What do we expect of employers? Evidently we are loyal to organisations rather than people and like to be appreciated for our ideas and ability rather than something of a personal nature. Value given to something routine does not impress us and we only feel acknowledged and appreciated if the person doing the appreciating is qualified highly enough to really know! When our opinion is solicited, people will get frank, honest answers, as we are not competitive because we are so aware of our own strengths and weaknesses (which is useful in a serving profession).

You will have noticed that I haven't asked whether I can actually do the job required of a biometrician. Somehow that doesn't seem to come into it! Do I fit? I will continue to ask the question.

Note - if you disagree with my observations it's a sure sign that you belong!

Lesley Hunt, AgResearch, Lincoln

XVIth International Biometric Conference

Hamilton, New Zealand, 7-11 December 1992

Provisional programme for invited papers

Topic	Speakers & Titles	Session Chairperson
Design and analysis of large-scale field experiments	H. D. PATTERSON (UK) Design and analysis of series of crop variety trials P. D. JOHNSTONE (New Zealand) Design and analysis of a series of fertilizer trials	R. Kempton (BR)
Biometry in human genetics and plant genetics	R. C. ELSTON (USA) Linkage analysis of quantitative traits in Humans S. KNAPP (USA) Gene mapping in plant breeding	E. A. Thompson (WNAR)
Extensions of generalized linear models	J. P. PALMGREN (Finland) Use of exponential family non-linear models in medical research K.-Y. LIANG (USA) Extensions of generalized linear models in the past two decades: overview and some biomedical applications	A. J. Dobson (AR)
Statistical needs for developing countries	J. RILEY (UK) Biometrical perspectives under global change S. NOKOE (Kenya) The status of statistics and computing in Eastern and Western Africa	N. Goodchild (AR)
Consulting and collaboration	D. J. HAND (UK) The reality of applied statistics J. DERR (USA) How to increase effectiveness in statistical consulting and collaboration?	P. Dagnelie (RBe)
Bayesian monitoring of clinical trials	T. A. LOUIS (USA) Bayesian methods for clinical trials: with an example from AIDS research	D. O. Dixon (ENAR)
Interface of geographic information systems and statistical analysis tools	M. BERMAN (Australia) Some statistical problems arising in the analysis of image data B. W. TURNBULL (USA) Tests for disease clusters about putative sources of hazard: application to TCE contamination and Leukaemia in up-state New York	P. J. Diggle (BR)
The AIDS epidemic: past, present, future	N. G. BECKER (Australia) AIDS incidence data: projection backwards and forwards K. DIETZ (Germany) Dynamic AIDS models - have they explained anything?	L. Billard (ENAR)
Use of computers to design experiments	B. SCHNEIDER (Germany) A PC program for sequential designs J. P. VILA (France) Optimal designs of experiments by stochastic optimization	D. Rasch (DR)
Statistics in ecology and environmental science	J. N. R. JEFFERS (UK) The role of biometry in environmental decision support G. P. PATIL (USA) Environmental sampling and statistical modeling with examples	I. Yoshimura (JR)

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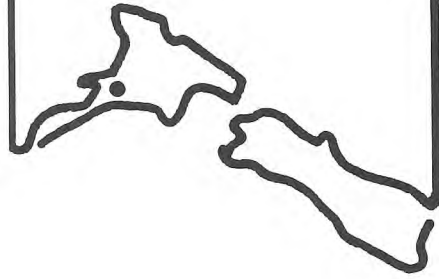
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S. ELLENBERG (ENAR)



1992 (XVIth) 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
ibc@ruakura.cri.nz

General Information

Registration forms are inserted in this *Newsletter*.

Registration

To attend the conference sessions and receive the conference proceedings you must have full or student registration. All registrants (including accompanying persons) get a conference satchel, entry to the opening reception and may participate in the accompanying persons tour programme. Registrations cancelled before 1 November will be refunded, less a 10% administration charge.

Accommodation

Conference accommodation is available in the Halls of Residence on the University campus or in the Ambassador Motor Hotel. You are also welcome to reserve accommodation for periods before and after the conference.

University Halls of Residence

The Halls are within two minutes walk of the Conference Centre and provide good accommodation for individual delegates. Each room has a single bed and a study desk. (Bath and toilet facilities are shared by approximately 6 people.) Breakfast in the Hall dining room is included in the accommodation charge.

Ten self-contained cottages, each with 4 single bedrooms, kitchen, lounge, dining, bathroom and toilet are \$NZ 80 per cottage per night. If you would like a cottage please check with the IBC Secretary before you register as they may all be gone!

Ambassador Motor Hotel

Units are of varying size (twin or double beds with extra single beds) with bathroom, toilet, television and telephone. Some units also have kitchens. Breakfast can be provided at extra cost. The motor hotel is near the main shopping centre of Hamilton and is 4km from the Conference Centre. Transport to and from the Conference will be provided. Approximate daily rates for the units will be: single \$NZ 78, double or twin \$NZ 90, additional person \$NZ 15.

To reserve a unit at the Ambassador, include a deposit of \$NZ 10 per night with your registration. The balance of the account is to be paid directly to the Ambassador on arrival. Late requests for hotel accommodation may have to be placed elsewhere.

University accommodation bookings cancelled before 1 November will be refunded, less a 10% administration charge. The motor hotel deposit will not be refunded.

Meals and Social Programme

Monday: Opening ceremony and lunchtime welcoming reception.

Tuesday: Evening meal at the University.
Cultural function. Likely to be evening on a Marae including traditional Maori food and entertainment.

Wednesday: Mid-conference tours.

Evening meal at University.

Thursday: Conference dinner at a vineyard and winery featuring a spit roast and local wines.

Friday: Closing dinner at the University.

Morning and afternoon teas and lunch (midday) will be served near the exhibition area. Order tickets for lunch, evening meals and functions on the registration form. Bar facilities are available.

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!

Auckland Drive north to Auckland, City of Sails. The first stop is on top of Mt Eden, an extinct volcanic peak, for views over the city, then visit the Auckland Museum which boasts a large collection of Maori and Polynesian artefacts including a huge carved war canoe. Lunch today aboard a sailing catamaran on the Auckland Harbour. In the afternoon visit Kelly Tarlton's Amazing Undersea World returning to Hamilton in the late afternoon.

Rotorua Rotorua is famous for its thermal activity. At Whakarewarewa see the geysers and mudpools and visit the Maori Arts and Crafts Institute to learn about New Zealand's Maori culture. See the beautiful Fairy and Rainbow Trout Springs and the performing sheep at the Agrodome. Lunch at the Skyline restaurant accessed by gondola.

Waitomo See limestone stalactite and stalagmite formations and take the boat trip into the Glowworm Grotto. At Otorohanga visit the kiwi house and lunch at a kiwifruit orchard. At Te Awamutu visit a beautiful carved Maori meeting house and amble through the delightful rose gardens.

Mt Tongariro Travel south to Tongariro National Park. Here there are 3 volcanic mountains. Walk one of the alpine trails (led by Peter Johnstone). The planned route will take you past hot springs and fumaroles, old lava

flows, streams, mountain flowers, moonscapes and volcanic craters and lakes. The day will be a long one. Five to six hours will be spent travelling by bus and a similar time will be spent walking. You will need to be fit. Although the walk can be done in light boots or running shoes, most of the route is exposed to the weather which can be unpredictable. You will need a day pack (boxed lunch provided), warm clothing (including hat and gloves) and a rainproof jacket. On hot days sunblocks and sunhats are advisable. If the weather is unsuitable on the day another interesting more sheltered route will be walked. Return via Taupo stopping to have dinner (at own cost) and bathe in the hot thermal pools (bring swimsuits) if there is time.

Black Water Rafting An adventure! Float through underground streams with a rubbering around your waist. Excellent limestone formations, glowworms. Bring swimsuits and old sneakers. Wet suits and cavers helmets provided. Limited to 3 parties of 12 people each. Afterwards lunch at the Waitomo Hotel and visit the Otorohanga kiwi house.

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 with payment included.

Sunday: Half Day tour of **Hamilton** including the Hamilton Rose Gardens and the Waikato Museum of Art and History.

Monday: **Opening ceremony** in the morning and **Welcoming reception** for lunch.

Half day tour of **Hamilton** in the afternoon.

Tuesday: **Auckland** (as in mid-conference tour)

or **Golf** (including transfers, green fees, hire clubs, hand carts and a light lunch) in the afternoon.

Thursday: **Rotorua** (as in mid-conference tour).

Friday: **Luncheon Cruise** on the paddleboat MV Waipa Delta as you cruise the Waikato River through Hamilton. Transfers between the hotel or University and jetty included or **Golf**.

Pre and post conference tours

Special pre and post IBC92 Conference tours have been arranged. If you would like to receive the glossy brochure detailing these tours please tick the appropriate place on the registration form. If you would like brochures to send to colleagues who you are encouraging to come to NZ for IBC92 and its satellites please let us know.

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, Martin Upsdell,

Brian Wickham, John Waller

Biometric Society region president and treasurer



Nye John, Waikato, President exchanges a note with David Fletcher, Otago, Treasurer of the Australasian Region of the Biometric Society.

Support for students attending IBC92 Australian Region Biometric Society

The Australasian Region of the Biometric Society is offering grants to students to enable them to attend the International Biometrics Conference in Hamilton in December. The intention is to assist with the cost of travel and registration. The closing deadline is August 31, and recipients will be informed by September 14. Applications should include a covering letter from the student's supervisor and give estimated travel costs. They should be sent to

David Fletcher, Department of Mathematics and statistics, University of Otago, Dunedin, New Zealand
Tel (03) 479 7804, Fax (03) 479 8427 e-mail
dfletcher@otago.ac.nz

NZSA

The NZSA also gives support to a student from each NZ university to attend IBC92, nominated by each statistics department.

Remember student registration is half price!

International Email directories

Email addresses of members of the Institute of Mathematical Statistics (IMS) and statisticians in countries including UK, Canada and NZ are available directly from StatLib. StatLib is an electronic mail based retrieval system for statistical software, data and information (see November 1990 Newsletter).

To get started send the one-line email message
send index

to

statlib@lib.stat.cmu.edu

Gleeson workshop

Alan Gleeson, from Biometrics NSW Agriculture, presented a very successful one day workshop on *Spatial methods for field trials* in April. He also demonstrated the program TwoD, developed by his group.



Alan Gleeson (10th from the right) and participants in the Waikato Centre for Applied Statistics third autumn workshop

The last MAFStat

The following day MAF statisticians with some DSIR and FRI colleagues met for the last MAFStat before they moved into CRIs. Such meetings will continue but perhaps not under the banner *CRISat*!

Biometrician honoured

Roger Littlejohn clipped the following item from the *Otago Daily Times* May 8. (Peter Johnstone is pictured there in a suit and tie!)

Biometricians are an almost invisible group of people, yet play a critical role in every research programme by designing the experiment, measurement and methodology, data analysis and interpretation.

A Biometrician at Invermay, Mr Peter Johnstone, took on a higher profile this week when he was awarded the Combined Rural Traders significant achievers award in agricultural-horticultural science, by the Otago branch of the Institute of Agricultural Science.

The branch chairman, Dr John Keoghan, said Mr Johnstone and his team played a key role in Invermay research and were the unsung heroes. Their achievements were essentially the list of all Invermay research, from animal science, plant science to soil science.

"Essentially, the credibility of the research conducted in the southern South Island depended on the calibre of Peter and his team", Dr Keoghan said.

Congratulations Peter!

Design problem: Ruakura sports day

I was presented with a design problem by the organisers of a recent inter-section sports day at Ruakura. They had 12 teams entered; each team was to play each of the five events. There would be 5 rounds, each consisting of 3 of the 5 events with 4 teams playing each event. For instance, teams 1-4 might play event A in round 1, teams 1,3,5,7 might play event B in round 2. Each team had to play each event and an optimal design would equalise the frequency with which any two teams played each other. Since each team plays against 3 others in each round, it meets 15 opponents in total, so the ideal would be for each team to meet 4 teams twice and the other 7 teams once. But is such a design possible?

Through trial and error, the organisers had come up with the following design which is quite good.

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

In this design team 1 plays team 7 once, teams 2, 3, 9 & 10 twice, teams 4 & 5 three times and teams 6, 8, 11 & 12 never.

My attempts to find or adapt a design from Cochran & Cox failed but I felt sure our statistical tools should be able to easily produce the optimal design for such a simple problem. Trial and error may be able to improve on the above design; of more interest to me is procedure for arriving at the optimal or near optimal design. Can anyone help? Best solutions will be published in the next newsletter.

Neil Cox

International Symposium on Forecasting

7 - 10 August 1992

Wellington

The second announcement brochure was included in the last *Newsletter*. Information from Fraser Jackson, Victoria University. Email jackson@matai.vuw.ac.nz

NZSA Publications

The Publications Committee has the following publications for sale. Prices include postage within New Zealand. For overseas clients the postage is extra.

The Data Bundle

Author: Mike Camden

(1989, 51 pages, soft cover)

The Data Bundle is a collection of *real* data sets, and is intended for use by both students and teachers of Statistics. The key tool used here is the graph because, as Mike Camden says, a really good way for people to learn Statistics is to explore real data with graphs. The data sets to be explored come from a wide variety of backgrounds, including health care and social services. Each data set has a brief 'header note' which suggests exploratory approaches that one might take. The approach can be as simple or complex as one wishes.

Price: \$7-50

School Projects in Mathematics and Statistics

Author: J. C. W. Rayner

(1988, 25 pages, soft cover)

This book is intended for those people who have to write papers, projects, or reports in Mathematics, Statistics, or any related subject. Although mainly written for students doing the 7th form Mathematics with Statistics paper, the book is useful for both students and adults generally. The reader is gently taken through the process required to produce a complete, sensibly laid out report. Also included is section on oral presentation.

Price: \$2-50

Statistics at Work

Editors: S. Gubbins, D. A. Rhoades, D. Vere-Jones

(1982, 111 pages, soft cover)

A handbook of statistical studies for the use of teachers and students. It includes eleven case studies accompanied by exercises, numerous references for further reading, together with suggestions for class work and projects. The book illustrates the practical importance of statistical ideas in a range of applications in a New Zealand context.

Price: \$10-00

Understanding Surveys

Editors: V. Duoba, J. H. Maindonald

(1988, 34 pages, soft cover)

This booklet provides a non-technical introduction to sample surveys and the many ways in which surveys are used. The focus is on the design of a survey and on the collection of survey data. It has been adapted for New Zealand needs from a document prepared by the American Statistical Association and contains many examples of New Zealand surveys. It includes exercises and can be used by teachers or students in statistics, social science and other courses to give students a brief introduction to sample surveys.

Price: \$10-00

We also have a very few copies of 'A History of Teaching Statistics' left at the unrepeatable price of \$10-00. First in, first served.

Please send orders to:

NZSA Publications

c/o J. Waller

Ruakura Agricultural Centre

Private Bag 3080

Hamilton

Members' News

Canterbury Grand statistical get-together (i.e. a local group meeting)

Canterbury experienced its first ever local group meeting (and survived) on the day when NZ should have been in the World Cricket Cup Final. It took the form of an after work social gathering in the University Staff Club. About 35 statisticians turned up, and had a convivial time, with Richard Penny giving an excellent twenty minute run down on activities at our local Department of Statistics. Many people were able to put names to faces for the first time, and the call went out for such events on a more regular basis. We now have a listing of about 60 local people with an interest in matters statistical.

Graham Wood

Massey

Massey news is mainly related to 1994. In that year we plan to move again, this time to a building specifically for the School of Mathematical and Information Sciences. It will be correctly placed in the centre of campus, next to Computer Services, with Science out the front and Technology round the back (or the other way round, if talking to a Technologist).

1994 is also the year we expect to start teaching at Massey's North Shore City campus. The emphasis will be on High Quality, High Demand, Distinctive courses, but even these involve statistics. Straws will be drawn to determine staffing.

All travellers mentioned in the March Newsletter have returned safely. Doug Stirling set up Models'N'Data labs at Wollongong, and Dick Brook sampled classification trees in Thailand, France, Denmark, US and Australia. Another whose travels have stopped is Nihal de Silva, who has joined the Horticulture CRI in Palmerston North and no longer commutes to Levin. Jeff Hunter is in Britain and Ganesalingam is in Singapore. The Department is unlikely to get together even in 1994.

Greg Arnold

Invermay

Ken Dodds attended a workshop on statistical methods in molecular biology at Berkeley CA, in April, and then spent a month with Bruce Weir working on statistical methods in genetics. He also attended the Australasian gene mapping workshop in Brisbane in July.

NZDOS Math Stats

The big news here is that Len Cook's reorganization of the Department has begun and by the next *Newsletter* we may have bifurcated in *Survey Methods* and *Analytical Methods*. The Department is also investigating changing its name to *Statistics New Zealand*, a la *Statistique Canada* and *Statistics Sweden*. This may help us not to be confused with a University Department, but we may also not get people filling in forms.

Len has managed to attract Dennis Trewin across the Tasman to be the second Deputy Government Statistician, and Group Manager of National and Regional Statistics, who will be responsible for producing the statistics from clean unit record data, and analysing them. Dennis has been with the Australian Bureau of Statistics for 26 years, and has been a First Assistant Statistician for 7 years, most recently heading the Statistical and Information Services Division. He has an international reputation in sampling and survey methodology.

Len has set up a Corporate Board: four out of six are statisticians. This should test whether statisticians practise what they preach!

Down at the design face, Richard Penny has been helping Tonga design and process a Household Expenditure and Income Survey. The visit to Tonga in June was arranged before power savings were introduced. Earlier Helen Stott, whom we still regard as one of us, went back to Papua New Guinea, to analyse the postenumeration survey, which she had designed for their population census. For once the confidence intervals of New Zealand surveys looked wonderful by comparison! Alistair Gray presented a paper, coauthored by Peter Thomson of ISOR, at an International Workshop on Seasonal Adjustment at the US Bureau of the Census. Robert Templeton has returned from his OE.

Alistair Gray

Otago

David Fletcher gave a talk at the Australian Statistics Conference in Perth in July. David has just started teaching the first year statistics course to 900 students and is surprised that he is enjoying it! Bryan Manly has returned from another world tour. Katrina Sharples will spend August and September in the States and the UK, starting with a week in Arizona to thaw out. She plans to visit Seattle, the joint statistical meetings in Boston, the Imperial Cancer Research Fund in London, the MRC Biostatistics Unit in Cambridge, and the European Meeting of Statisticians in Bath. Hamish Spencer is going to Boston too, but not to the joint meetings.

Members' News

Wollongong NZ connection

The Wollongong connection with New Zealand is very strong this year. First to arrive on the scene was Doug Stirling (and family) from Massey University. Doug spent his sabbatical leave with us, refining his statistical package Models 'N Data on the Mac computer and using the students in MATH131: Modelling Variability and Uncertainty as guinea pigs. Doug's stay was very worthwhile for all concerned, and we look forward to his next visit.

Next to come was John Rayner, who arrived on 1st June. John has taken up a position as Senior Lecturer, and brings the number of academic statisticians in the Mathematics Department to seven. He had left a chilly Dunedin the previous day, and found that Wollongong was enjoying a balmy 21 degrees Celsius. (John also found that a plot of temperature vs time of day is much more platykurtic for Wollongong than for Dunedin, so you get to enjoy the heat for longer. This may be a disadvantage in summer!)

The President, Jean Thompson, will be visiting Wollongong in mid-August, to address a Quality in the Community conference on the experiences of the Wellington Quality Improvement Network. Jean will stay on for an additional day to visit the Mathematics Department at the University.

That's the current list of arrivals from New Zealand, but we would be happy to receive more visitors. As an inducement, may we let you know that the next odd-year statistical Conference (distinguished from the even-year ones by having special themes) will be held in Wollongong at the end of September, 1993. The themes will be Statistical Computing, Statistical Education, and Total Quality Management. If you would like to register your interest in attending, send e-mail to statconf@uow.edu.au or ordinary (snail) mail to Statistical Conference Secretary, Maths Dept, University of Wollongong, Locked Bag 8844, South Coast Mail Centre, NSW 2521, Australia.

Ken Russell

Auckland

Due to the absence of Auckland's regular news correspondent and newsmaker Peter Danaher on leave (3 months till the end of August) in USA and Europe, an anonymous source in Auckland reveals that George Seber's engagement has turned into marriage and that, at the time of writing, he was lying on a beach in Tahiti. Also, Alan Lee and Peter Mullins were at the Australian Statistical Society meeting in Perth.

Wallaceville

I spent three weeks in June visiting the "Laboratory of research on rabies and wildlife pathology" at Nancy in France, funded by the French Ministry of Foreign Affairs. The purpose of the visit was to develop a model to help them design a control programme to combat *Echinococcus multilocularis*, a parasite of foxes that if transmitted to humans causes a particularly nasty disease, that is invariably fatal. Working with foxes meant that I had to come to grips with rabies as well, which is not entirely pleasant. The French are controlling rabies in foxes with an oral vaccine inserted in a bait and dropped by helicopter, and were wondering if an antiechinococcus drug could be included. I was able to develop a model for both the rabies and echinococcus parts of the control programme, and joint publications are now being prepared.

The week before my visit to Nancy was spent at the "Third International Conference on Mathematical Population Dynamics" at Pau in the French Pyrenees, where I presented a paper on nematodes in sheep. On my way home I attended the "Sixth IMA Conference on the Mathematical Theory of the Dynamics of Biological Systems" at Oxford, which was held in the first week of July. When people asked who I worked for I just didn't know what to tell them!

Penny Risdon attended the Australian Statistics Conference in Perth in July.

Mick Roberts

Waikato

The Waikato team are busy preparing for IBC92. Nye John visited Joiner Associates in Madison and attended the Hunter Conference on Quality, on his way to the UK in June. Bill Bolstad is going to Stanford and to the ASA meetings in Boston in August. Martin Upsdell is getting the wrinkles out of his smoothing package *Flexi* for unveiling at IBC92. All Ruakura statisticians transferred to CRIs: 7 to AgResearch and 2 to Hort Research. Ken Russell will be visiting for 3 months after IBC92.

Rhonda Sutherland recently joined the Livestock Improvement Corporation of the NZDB in Hamilton as a statistician. David Miles is completing his masters and from September will continue contract work on the fertiliser experiments databases with John Waller.

Kemphome (paraphrased) on observational versus experimental studies:

You can observe the effects of causes but not the causes of effects.

Members' News

Victoria

Jim Bolger, if he only knew, would love to learn our secret: we have been completely de-petered. Peter Thomson and Peter Smith are both in the UK on various types of leave. The former is allegedly working at the LSE and the latter (with wife Anna) is proudly showing off the new baby. With Tony Vignaux at some conference or other in Paris, we seem to be well represented offshore at the moment. Of course that simply means that we poor souls left here are working that much harder. We are still enjoying the settling in process to our new premises, which are proving very acceptable. We are enjoying the convenience of having our own research and undergraduate labs with networked SPARCstations, and when the Multi-Processor arrives later in the year we will be up there with most establishments, if not quite into the supercomputer league. The only discomfort in recent times relates to the carving up and imminent demise of the Applied Maths Group of the DSIR with which we have had good relations for many years. The magnitude of the loss is not yet fully apparent but will be considerable.

We are expecting two new staff to arrive over the next months: Yu Hayakawa in August and Thomas Mikosch in October. This will give a boost to the OR and DipFinMath programs. A further position is currently being advertised, and is likely to go to an OR position. Teaching responsibilities are growing inexorably and we are contemplating a split of the largest first year service stats course, which this year had more than 300 enrolled, with a large waiting list. We are considering 500 in two streams next year. Ross Renner has successfully trialled Mymstat as a computing option in the course this year, and we will probably build on that in future years.

Brian Dawkins

Members move overseas

Ian West moved from Fisheries Research, MAF, Wellington in May to the School of Ocean and Earth Science and Technology, University of Hawaii at Manoa.

Jocelyn Dale, former editor of the *Statistician*, is currently in Thailand.

Deborah Donnell and Andrew Bruce are working at Statistical Science Incorporated in Seattle. Email deborah@statsci.com

Accreditation

Ron Sandland chairs the Statistical Society of Australia working party to investigate the issue of accreditation of statisticians. In the interests of Trans-Tasman co-operation we have asked Ron to bring us up-to-date with the Australian situation so that our two associations can begin to work together on this.

The initial motivation was the apparent government move to establish competency-based definitions of various professions. It was agreed that while this was something we needed to keep an eye on, its future was sufficiently clouded that there was no need to respond urgently. However the question of accreditation remains a real issue. Over the next few months the Society will be addressing accreditation from several viewpoints:

• **What are the real benefits for the profession?** Possible answers include raised profile and identity, development and maintenance of high levels of professionalism, improved employment opportunities for stats professionals in the light of some competition.

• **What will it mean?** The need to accommodate different classes of membership according to the requirements of different backgrounds, the need for a more professional approach to the Society's management, increased membership fees!

• **How will it work?** Possibilities include exams, qualifications, qualifications plus experience, evidence of professional work.

• **How do we deal with variability in professional activities?** Need for flexibility to accredit individuals who have made a non-standard entry into the profession, need for an accreditation committee, need for continuing education, need for pre-accreditation to get the ball rolling.

• **Do we constrain our models to fit with the RSS/IOS and ASA?**

• **How would we go about maintaining professional standards and discipline?** What would give us cause to defrock a statistician and what mechanisms would we need?

Ron Sandland, DMS, CSIRO

Your reaction

Look again at Hugh's editorial in the *June Statistician*. He also invites your response to questions he raised on a Professional Code of Conduct. Graham Wood will be following up these issues for the Association. So also send your views on accreditation to

Graham Wood, Department of Mathematics, University of Canterbury, Private Bag, Christchurch. Email grw@math.canterbury.ac.nz

Satellite Conferences to IBC92

A number of conferences and workshops have been planned around IBC92. Further information may be requested on the IBC92 registration form, or may be obtained by contacting the organiser of each conference.

Satellite meeting on Biostatistics

30 November to 2 December 1992, Centre for Clinical Epidemiology and Biostatistics, University of Newcastle. 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 at 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. Contributed papers of 25 minutes are welcome. **November 1** is the deadline for abstracts. For more information contact:

Dr. Kim-Anh Do, Statistical Sciences Division, CMA, Australian National University, Canberra, ACT 2601, Australia, Phone +61 (6) 249 0564 or +61 (6) 258 1708 Fax +61 (6) 249 5549 Email dokstat@durra.anu.edu.au

Analysis of repeated measurements data: an overview

3-4 December 1992 in 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. The aim is to provide a forum for the presentation and discussion of the many approaches and problems associated with analysis of repeated measurements data. It should therefore be of interest to statisticians in many different application areas. The provisional fee is \$200 and for post-graduate students is \$100. 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

Molecular Evolution Workshop

Bruce Weir is organising a workshop in Molecular Evolution for (NOTE CHANGE) **12-13 December, 1992**. It will be held in Rotorua at the Forest Research Institute, and will be named in honour of the late Allan Wilson. For more information contact:

Dr Bruce Weir, North Carolina State University, Raleigh NC 27695-8203, USA. Email nbsweir@ncsumvs.bitnet

International Conference on Environmental Biometrics

Sydney, Australia, 14-15 December 1992

A conference is planned to bring together scientists and statisticians to address problems in the environmental sciences. The meeting immediately follows IBC92 and is sponsored by the Statistical Society of Australia (NSW Branch), the American Statistical Association (Sec. on Statistics & the Environment), the Biometric Society (Western North American Region), the U.S. National Institute of Environmental Health Sciences (Division of Biometry and Risk Assessment), and the Sydney Water Board.

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 on problems encountered in: modelling and monitoring water- or air-borne particulates or exobiotic agents and assessing their effects on animal (including human) or plant populations; environmental health assessment; identification of environmental toxins based on bioassays in mammalian or microbial test systems; and sampling and modelling in ecological studies (including spatial statistics and tag-recapture methodologies). Papers will present potential sampling and experiment designs, model formulations, and data analyses applied to these problems. Data analyses will include multivariate statistical analyses, statistical quality control methods, and trend fitting approaches (for short- or long-term trends and when seasonality is either present or absent).

Abstracts may be submitted by 16 October 1992 to John C. Evans, Water Board, PO Box 73, West Ryde 2114, Australia; Fax: +61 (02) 334 0817. Full details of the programme and registration information will be advertised in August. Until then, additional information may be obtained from John Evans.

IBC92 satellite conferences

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.

We would like titles and abstracts by **31 August 1992**. If you are interested in participating in this workshop please contact: George PH Styan, 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.

Dynamic graphical analysis of statistical models: short course

Professor R Dennis Cook, University of Minnesota, will conduct this short course on **Sunday 6 December 1992**, 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.

Methods for correlated data: current research

14-16 December 1992 in 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. We hope to draw together statisticians currently working in the area. Invited speakers include Norman Breslow (University of Washington), Kung Yee Liang (John 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

This is the second international Genstat conference to be held in Australasia. 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. Participants may register on the evening of **Sunday 13 December** or first thing on Monday morning, and the conference will end at midday on **Wednesday 16 December**. Registration (which includes lunch, tea and coffee and a Sunday evening reception) will be NZ \$180 before 1 September 1992, and NZ \$220 thereafter. Accommodation will be available in student hostels at a cost of about \$100 per person for three nights; alternatively participants can book their own accommodation at local motels.

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.

Potential contributors should send a one-page abstract to Roger W Payne or David B Baird as soon as possible. Australasian contributors are particularly encouraged to do so. 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@chpc.dsrir.govt.nz).

REGISTRATION FORM

XVIIth International Biometric Conference

Hamilton, New Zealand, 7-11 December, 1992

Given Name: Name for name tag: Mailing Address:	Family Name:
Institution:	Fax:
Names of People Registering as Accompanying Persons:	Phone:
	Email:

1. REGISTRATION

Full Conference Registration: _____ people (\$NZ 300 before 1 September 1992) (\$NZ 350 after 1 September 1992)	Total
Student Registration: _____ people (Verification from University must accompany registration) (\$NZ 150 before 1 September 1992) (\$NZ 175 after 1 September 1992)	\$
Accompanying Person Registration: _____ people (\$NZ 30 before 1 September 1992) (\$NZ 35 after 1 September 1992)	

2. ACCOMMODATION DETAILS

I wish to reserve accommodation from _____ to _____ December (check in day & date) (check out day & date) for _____ people.	Total
Type of Accommodation: University Halls of Residence (Single rooms only) (_____ nights at \$NZ 40 per night bed/breakfast) Motor Hotel (deposit*: _____ nights at \$NZ 10 per night) Room type (Single/Double/Twin) * Balance (approx \$NZ 70-80 per night) to be paid to the Motor Hotel on arrival.	\$

3. MEALS

Lunch (\$NZ 10) required for: _____ people on Tuesday, _____ people on Thursday, _____ people on Friday.	Total
Tickets required for: _____ people to the cultural function (\$NZ 50) on Tuesday night _____ people to the conference dinner (\$NZ 70) on Thursday night.	\$
University evening meal (\$NZ 20) required for: _____ people on Monday, _____ people on Wednesday, _____ people on Friday, _____ people on Sunday, _____ people on Friday.	

4. MID-CONFERENCE TOURS (Wednesday 9 December, lunch included)

Auckland	_____ people at \$NZ 80	Total \$
Rotorua	_____ people at \$NZ 75	
Waitomo	_____ people at \$NZ 70	
Tongariro	_____ people at \$NZ 70	
Black Water Rafting	_____ people at \$NZ 120	

5. ACCOMPANYING PERSONS TOUR PROGRAMME

Sunday Hamilton	Monday Hamilton	Tuesday Auckland	Tuesday Golf	Total \$
_____ at \$NZ 15	_____ at \$NZ 15	_____ at \$NZ 80	_____ at \$NZ 45	
Thursday Rotorua	Friday Golf	Friday River Lunch		
_____ at \$NZ 75	_____ at \$NZ 45	_____ at \$NZ 40		

6. PRE AND POST CONFERENCE TOURS

A range of pre-conference and post-conference tours around New Zealand and a 2 day tour linking the IBC and Queenstown conferences have been organised by Travel Time New Zealand; outlines of these tours were published in the May 1991 issue of the *Biometric Bulletin*. If you would like to receive the brochure detailing these tours:

_____ Tick here or fax IBC Tours, Travel Time New Zealand (64-7-838 1120)

7. SATELLITE CONFERENCES AND WORKSHOPS

Dynamic Graphics short course (Sunday 6 Dec) at Hamilton:	_____ people at \$NZ 75	Total \$
Biostatistics (30 Nov-2 Dec) at Newcastle, Australia:	Tick _____ for information	
Molecular Evolution workshop (2-4 December) at Rotorua:	Tick _____ for information	
Bootstrapping (2-4 December) at Canberra, Australia:	Tick _____ for information	
Repeated Measurements (3-4 Dec) at Hamilton:	Tick _____ for information	
Matrix methods for statistics (4-5 Dec) at Auckland:	Tick _____ for information	
Methods for correlated data (14-16 Dec) at Queenstown: GENSTAT conference (14-16 Dec) at Rotorua:	Tick _____ for information	

Please list totals from section 1-7 and pay the Grand Total:

Section \$NZ	1	2	3	4	5	7	Grand Total \$

Remittance should be in New Zealand Dollars, payable to: XVth International Biometric Conference (If it is not possible to send payment in New Zealand dollars, then the Local Organising Committee may request additional payment at registration time, where the equivalent amount in NZ dollars at the time of receipt of payment falls short of the total conference fee.)

Method of Payment: Bank Draft/International Money Transfer/Credit card (circle one)

International Money Transfer to : XVth International Biometric Conference
The National Bank of New Zealand
Frankton Branch, Hamilton, New Zealand
Account No.: 060313-0076233-00

Credit Card: MASTERCARD/VISA (delete one)

Card Number:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Cardholder's Name:

(Please print as shown on card)

Cardholder's Signature: _____

Expiry Date: _____

Date: _____

Please return completed form with payment to:

IBC92 Conference Secretary, Ruakura Agricultural Centre, Private Bag 3080, Hamilton, New Zealand
Fax: 64-7-838 5012 E-mail (Internet): IBC@Ruakura.maf.govt.NZ

XVIIth IBC - Contributed papers: SUBMISSION FORM

(Read carefully Abstract preparation instructions)

Contact Author

Given Name:

Family Name:

Mailing Address:

Fax:

Email:

Title of Paper

Additional Author(s)

Type of contribution

Oral Session

I wish to present my contribution in:

Poster Session

for which I will need the following equipment:

for which I will need the following equipment:

Overhead projector(s)

Slide projector

PC 286 or 386 with projection to screen

Macintosh SE or LC with projection to screen

Video (VHS)

PC 286 or 386

Macintosh SE or LC

Please tick the relevant category or categories of your paper in each section.

A. General

Theory and Methods

Applications

Reviews

Educational

B. Methodology

Linear models

Nonlinear models

Generalised linear models

Spatial statistics

Multivariate analysis

Estimation

Robustness

Sampling

Experimental design

Stochastic processes

Survival analysis

Modelling

Simulation

Other (.....)

Exploratory data analysis

Bioassay

Risk analysis

Graphical methods

Image processing

Time series

C. Application

Agriculture and horticulture

Plant breeding

Animal breeding

Biology

Other (.....)

Molecular genetics

Human genetics

Numerical taxonomy

Law

Clinical trials

Epidemiology

Pharmacology

Physiology and medicine

Ecology & resource management

Environment

Meteorology

Industry



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(Please follow carefully the Abstract preparation instructions)



Please return by 1 July 1992 to
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