

statistical society of australia incorporated
n e w s l e t t e r

31 may 1992

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11th AUSTRALIAN STATISTICAL CONFERENCE

Prepared by Russel John

For those readers who have just returned from an extended stay in an orbiting space station, the 11th Australian Statistical Conference will be held in Perth, from July 6-10, 1992. That's a matter of days away. For those who already knew this, but have become too embroiled in the sequence of daily tragedies that is their lives to do anything about it, there is still time to register. For those well organised souls who have already registered and have been waiting patiently or otherwise for programme details, the following information can now be revealed.

Invited Speaker Programme

S. AMARI (Tokyo)

"The geometry of estimating functions"

O. BARNDORFF-NIELSEN (Aarhus)

"Some recent developments in likelihood theory"

H. DAVID (Iowa State)

"Concomitants of order statistics: Review and recent developments"

P. DIACONIS (Harvard)

"Geometric analysis of Markov chains" and
 "The search for randomness" (Public Lecture)

L. EVANS (General Motors Research)

"Traffic crashes: What do we know, how do we know it and what can we do?" and
 "Influence of car weight on occupant fatalities"

P. GREEN (Bristol)

"Stochastic models and algorithms in medical imaging"

P. HALL (ANU)

"The development of bootstrap methods - an illustration of the interface between statistical insight, statistical theory and statistical practice"

W. HAERDLE (Bonn)

"Nonparametric approaches to GLIM"

R. HOCKING (Texas A&M)

"Efficient computation of variance component estimates with simple diagnostics"

J. LAWLESS (Waterloo)

"Some methods for the analysis of repeated events in reliability"

B. LINDSAY (Penn State)

"The Neyman-Scott problem and square array asymptotics"

O. PENDLETON (Texas Transportation Institute)

"An empirical Bayes method for adjusting for regression to the mean sampling bias in evaluating highway safety" and
 "Statistical myths in transportation, including the case of the killer (pavementmarking) buttons"

R. ROY (Indian Statistical Institute)

"Single linkage clusters and continuum percolation"

R. SMITH (Chapel Hill)

"The statistics of chaos" and
 "Long-range dependence and global warming"

T. SPEED (Berkeley)

"African populations and the evolution of human mitochondrial DNA: Statistical aspects"

R. TWEEDIE (Colorado State)

"Stability and Markovian processes"

Editors: D.E. Shaw, CSIRO, DMS, PO Box 218, Lindfield, NSW 2070

E. Brinkley, Australian Bureau of Statistics, PO Box 10, Belconnen, ACT 2616.

R.I. Forrester, CSIRO, Biometrics Unit, INRE, GPO Box 1666, Canberra, ACT 2601.

The views of contributors to this Newsletter should not be attributed to the Statistical Society of Australia, Inc.

Deadline for next issue: 17 July 1992

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In addition, talks from R. Bailey (Queen Mary) and B. Bollobas (Cambridge) will be arranged jointly with the Australian Conference on Combinatorial Mathematics and Mathematical Computing.

J. Lawless is sponsored by ALCOA of Australia, L. Evans and O. Pendleton by the Federal Office of Road Safety and R. Smith by The University of Western Australia. P. Diaconis and S. Amari are jointly sponsored by ASC11 and the Australian Mathematical Society.

The contributed paper section of the conference promises to be no less varied and interesting than the invited speaker

programme. There will be a session on estimating functions, featuring C.C. Heyde and V.P. Godambe, a session on the uses/abuses of statistics in public health issues, the law and government policy decisions, a one-day session on Accident and Injury statistics, an evening session on statistical consulting and many more on Markov processes, Time Series, Biological applications, and so on.

Further information and registration forms can be obtained from Russel John, ASC11 Secretary, Agricultural Economics, School of Agriculture, University of Western Australia, Nedlands WA 6009. Phone (09) 380 3410, Fax (09) 380 1098, email aerdj@uniwa.uwa.oz.au.

AUSTRALIAN MATHEMATICAL SCIENCES SYMPOSIUM — A CLARIFICATION

In my report of the Australian Mathematical Sciences Council Symposium in the last issue (March 1992) of this newsletter I said :

'While there has, apparently, been some consideration of involving the Australian Society for Operations Research in the Council, the President was completely unaware of what might be happening in the Total Quality movement.'

As the context of the report was an Australian Mathematical Sciences Council Symposium it was assumed that 'the Council' would be understood to mean

that Council and 'the President' was the President of that Council, Dr Garth Gaudry. I wish to make it clear that it was never intended that 'the President' should be interpreted to mean the President of the Statistical Society of Australia, Dr Tim Brown. It was clear from the list of invited speakers that the Statisticians on the AMSC, of which Prof Brown is one, had done a good job in ensuring that Statistical and associated quality areas in industry were covered by the Symposium.

Gareth Clayton

BRANCH REPORTS

New South Wales

March Meeting

Incoming branch president Dr Nick Fisher (CSIRO) delivered the H.O. Lancaster at Women's College, Sydney University. His topic, Circular Data Analysis in Retrospect and Prospect, has been very much on his mind lately as his book on the subject is shortly to be published. The talk covered the essentials of the subject and in particular, the history. That remarkable nurse/social reformer/medical statistician of the Victorian era, Florence Nightingale, (great aunt of the British statistician F N David), was one of the early users of rose diagrams as a graphical representation of circular data. She was congratulated by the speaker for having used sector area rather than sector radius to represent frequency. The use of sector radius leads to confusing visual information; geologists evidently don't experience this confusion as they continue to plot their circular data using this method. Nick has developed a reputation for concluding his talks with some light relief. The audience was not disappointed on this occasion.

After the talk there was a dinner in honour of both the speaker and Prof Lancaster. Dr Eyland gave an impromptu speech congratulating Prof Lancaster on being awarded the Order of Australia. Prof Lancaster responded by giving some details of the history of the society. It is interesting to note that even though he retired almost 15 years ago,

Prof Lancaster still works at the University of Sydney every day and in the last year has published two books.

April Meeting

Those who have resisted coming to terms with splines were confronted by further evidence of their importance at Jerome Friedman's (Stanford) talk on Multivariate Adaptive Regression Splines. MARS is in fact a methodology for approximating and interpreting general functions of a high dimensional argument given noisy data. Its only assumption is that the function to be approximated is locally smooth where smoothness is adaptively defined depending on the local characteristics of the function. The speaker explained how the formidable problems of selecting such an approximating function were tackled. The methodology was demonstrated on the Canadian lynx trapping data and on some Swedish car insurance data.

After the talk there was the usual dinner at a local Italian restaurant. We encountered there a waiter trained in the Basil Fawty school. Only those who could produce a medical certificate were permitted to have the meal of their choice.

Queensland

Following our Annual General Meeting on 17 March 1992 we had an interesting address by one of our retiring members. Dr Mildred Prentice spoke on historical aspects of a career in statistics spanning over 40 years. Mildred began her PhD at University College, London University

in 1934 with Prof Fisher and later at Rothenstead with Sir Frank Yates. In order to obtain her PhD, Mildred had to publish three papers and then face an oral examination by these two illustrious scholars - a truly daunting task. On her return to Australia in 1936, Mildred went to work with CSIR, Division of Forest Products in Melbourne. Mildred recalls being involved in many heated discussions as to whether it is better to sample often from a few trees or take few samples from many trees. In 1941 Mildred retired from the paid workforce to have her children, not returning until 1957 when she acted as a part time tutor in Henry Finucan's evening class. From then until her retirement Mildred worked as tutor and lecturer in the Departments of Medicine and Mathematics at The University of Queensland. She saw many changes in statistics classes offered at The University of Queensland during her career. In 1927 the first class in statistics was conducted and by 1977, when Mildred retired, there were 19 statistics courses on offer. In addition to changes in the importance placed on statistics over her working life Mildred had a ring side seat in watching the growing emphasis and reliance placed on computers. The cumbersome digital computer first introduced to the University of Queensland in 1966 bore little relation to the sleek versions in common use on everybody's desktop today.

Student Scholarships

Because of the outstanding calibre of the applicants, it proved an impossible task to select only one recipient for the first student scholarship from the Statistical Society of Australia, Queensland branch. The panel resolved their dilemma by awarding two scholarships of \$400 each.

Congratulations to Theresa Muller from the University of Central Queensland and David Nott from The University of Queensland.



The above photo shows David Nott (left) being congratulated by his honours project supervisor, Dr Richard Wilson (Department of Mathematics, University of Queensland) on his selection as one of two scholarship winners from the Queensland branch of the Statistical Society of Australia. Theresa Muller from the University of Central Queensland is the other recipient.

Victoria

March Meeting

The March meeting was addressed by Dr Alan Veevers of CSIRO, DMS. In the situation where plants are planted at the nodes of regular lattices, there are a number of different combinations of like and unlike nearest neighbours for a particular plant. In the case of a triangular lattice there are 6 nearest neighbours. The objective is to obtain balanced designs. It has been shown that for a hexagonal (beehive) shaped boundary the design cannot be balanced for any sized lattice. A basic design which has alternate rows of the same pattern and so can be built on by simply adding more rows is balanced. This design has the advantage that the vertical rows are monocultures, making specification of the design simple. The design can be used for studying intra-specific competition, where the second variety is replaced by blank spaces.

South Australia

1992 Honours Scholarship

The South Australian Branch has awarded the 1992 Honours Scholarship to Sue Taylor of The Flinders University of South Australia. Sue is studying part-time in the Discipline of Statistical Science.

Applications of Statistics to Global Management and Global Marketing

Cam Rungie of the University of South Australia addressed the Branch on Wednesday 26th February, 1992. This was a discussion paper by Cam on the present and potential role for statisticians in management and in particular in global management. A range of examples of the use of quantitative techniques were given to demonstrate the types of roles which statisticians could choose to adopt with regards to global issues. Examples were drawn from social research, demography, spatial geographic modelling, and marketing.

Social Research: Social research presents concepts which influence the techniques and approaches used in collecting, analysing and presenting data. The culture and structure of a community are factors which will have an important influence on the selection of techniques for collecting and analysing data from the community. Concepts used in community development and in cross cultural surveys were discussed to indicate areas which statisticians could develop further.

Demographic and Geographical Research: Quantitative and statistical techniques have useful applications in demographic and geographical analysis. These techniques have impact on the identification of issues and the development of policy in the public sector. The techniques are of relevance to management in general as well as to the management of quantitative skills and statistics itself. Examples of particular interest are the statistical techniques used in forecasting populations, traffic flows and green house effects.

Global Management and Global Marketing: Through an overview of the role of statistics and quantitative techniques in marketing management and market research, it has been possible to identify statistical opportunities relating to global issues. These relate to issues of both a commercial and social nature. Global statistical analysis will assist Australian industry to further develop its own global perspective. Several statistical techniques and skills are of importance to the development of this global statistical perspective.

Multitiered Experiments and their Analysis

Chris Brien of the University of South Australia addressed the Annual General Meeting of the Branch on Wednesday 25th March, 1992. The analysis of a class of experiments termed multitiered (Brien, 1983) was outlined. This class of experiments included two-phase, superimposed and some plant and animal experiments. The analysis involves the fitting of linear models using "the analysis-of-variance method". However, a novel feature of the paradigm employed is that it involves dividing the factors in the experiment into both randomization-based categories, called tiers, and into expectation and variation factors.

Annual General Meeting

At the Annual General Meeting held on Wednesday 25th March, 1992, the following Branch Council was elected:

President:	Bob Hall, University of South Australia
Vice-president:	Ari Verbyla, University of Adelaide
Secretary:	Alan Branford, Flinders University
Treasurer:	Barbara Trudinger, CSIRO Div of Mathematics and Statistics
Council:	Trevor Hancock, Sandra Pattison, Angela Reid, Sue Taylor

Western Australia

The Impact of Uncertainty in the Incubation Period on Projections and Reconstructions of the AIDS Epidemic

Following the Branch AGM in March, WA members were treated to an interesting talk by Dr Mark R. Segal, of the University of California, San Francisco (visiting Murdoch University). Mark presented the results of some work in which he and his US coauthors modelled the incubation distributions applying to three important data sets from the AIDS literature (covering a Hepatitis B vaccine trial, an SFCCC random sample and a haemophiliac cohort). Using a three parameter generalisation of the Weibull as a model, likelihood comparisons made it clear that quite different incubation distributions apply to different groups within the community. Mark went on to argue that the 'backcalculation' method which has been widely used to reconstruct HIV infection densities and project future AIDS cases must currently be regarded as very imprecise — given its sensitivity to the incubation distribution assumed as an input. Mark illustrated this point by exhibiting the very different predictions given by backcalculations based on the different incubation distributions fitted to his three example cohorts.

Unfortunately, information on incubation distributions is by nature only available for special groups within the population. It is difficult to obtain the data needed to reliably estimate these distributions for the populations to which backcalculation methods need to be applied. In the course of demonstrating his conclusions, Mark touched on a number of interesting statistical issues arising in his data analyses, including the use of penalised likelihoods, and a surprising level of success in dealing with apparent overdispersion in Poisson residuals by the simple device of correcting for the number of days per month.

The Effect of Median Width on Highway Accident Rates

The talk for our April meeting was given by Dr Matt Knuiman, of the Department of Public Health at UWA, a newly re-elected Branch committee member, following his recent return from study leave at the University of North Carolina, Chapel Hill. During his stay at Chapel Hill, Matt completed a study with coworkers at UNC's Highway Safety Research Centre, on the effects of median strip widths on highway accident rates. The study concentrated on four lane rural highways with traversable median strips. It involved merging and selecting data from several large data bases. This process resulted in two large datasets (one from each of two states) containing the numbers, types and severities of accidents recorded on specific highway sections over a given period of time; along with various characteristics of these sections, including median width; plus details of usage rates (in hundreds of millions of vehicle miles).

Matt described his success in persuading his traffic engineer colleagues of the value of improving their statistical methods — beyond their past practice of performing ordinary linear regressions of log transformed accident counts, and its embarrassing problem with the treatment of zero counts. After studying the mean-variance relationship for accident counts using a number of homogeneous groups of road sections, Matt decided on the $V(Y) = E(Y) + K.E(Y)^2$ (negative binomial) variance function as his means of dealing with the heavy overdispersion revealed in his initial Poisson log-linear regressions. Proceeding by quasi-likelihood methods using GLIM, Matt was able to provide the traffic engineers with curves estimating the relative drops in accident rates of various types as median width increases, while all other factors are kept fixed. To the engineers' delight, these curves were in general agreement with conventional wisdom on the subject of median width design. The talk generated a spirited discussion regarding the relative merits of competing possibilities for dealing with the overdispersion issue, and for modelling the shapes of the relative accident rate curves.

Canberra

TQM in New Zealand

The first meeting of the Canberra branch for 1992 was held on 25 February, and was addressed by Professor J.A. John of the University of Waikato. In an informal and entertaining talk, Professor John spoke on the trials and tribulations of consulting on Total Quality Management

(TQM) in New Zealand. In particular, he introduced his audience to the philosophy underlining TQM, the genesis of his introduction (and conversion) to TQM and some highlights (and lowlights) of his experiences over the last five years in spreading the TQM message to businesses in the New Zealand manufacturing sector. The statistical theory and methods underlying the TQM philosophy are now well known in statistical circles, even if they are still not entirely accepted as the answer to the question of how statistics should be applied in real life. However, Professor John's talk served to emphasise the most important practical issue in applying TQM statistical concepts 'out there' was not the particular toolkit of methods that were applied to any particular situation, but the approach taken by the statistician in communicating how the continued use of these tools was a crucial and necessary part of implementing TQM. In the TQM environment statisticians can no longer afford to be 'back room boffins', with no involvement or interest in the way the TQM process is introduced and managed. Successful implementation of TQM requires the statistician to come out of the 'back room' and play a leading role. In order to do this effectively, statisticians must become better communicators. Most importantly, they must become involved in influencing senior management to be seriously committed to continued implementation of TQM. Without statisticians participating in senior management (or at least closely involved in senior management decisions), TQM tended to wither on the vine, and 'real life' statistics with it.

Annual General Meeting

The AGM of the ACT Branch was held on 24 March 1992, at the Plant Industry Lecture Theatre at the CSIRO. The office bearers elected at the meeting were:

President	Dr Jeff Wood, CSIRO, Biometrics
Secretary	Mr Eden Brinkley, ABS
Treasurer	Dr Ted Catchpole, CSIRO, Biometrics
Councillors	Ms Justine Gibbings, DSS Dr Emlyn Williams, CSIRO, Biometrics Mr Ross Cunningham, ANU Mr Greg Griffiths, ABS Ms Caroline Bowles, ABS Dr Alan Welsh, ANU, Immediate Past President.

Who is a 'Statistician'?

Following the 1992 AGM, Dr Des Nicholls of the Australian National University spoke to the Branch on the

topical issue of what constitutes a 'statistician' to the public at large and what relationship (if any) such statisticians bear to the quality of the statistical analysis carried out in the public domain. Major decisions by both government and private enterprise are crucially dependent on significant statistical input. In many cases, this input comes from professional statisticians, but this is not always the case. In a wide ranging and non-technical talk, Des drew on his extensive experience in statistical consulting to question the role of 'statisticians' in decision making and, in the case of a number of major decisions of public interest, whether or not these 'professionals' had delivered the 'required product'.

In his talk, Des mainly focussed on statistical issues that arose in the development of the Environmental Impact Statement (EIS) relating to the building of a third runway at Sydney's Kingsford Smith Airport. From the viewpoint of someone who had been personally involved (as a statistical consultant) in this fiercely debated issue, Des was able to give his audience a unique perspective on the quality and applicability of the statistical analyses that made up the EIS assessment of the potential impact on property values in those suburbs under the flight approach path to the new runway. These analyses had been provided by parties arguing for construction of the runway, as well as those opposed to it. A crucial element of the decision process involved assessing the quality of these 'professional' analyses, which had come up with widely different estimates of the potential reduction in land values due to increased noise from third runway air traffic. Not surprisingly (to anyone who knows him) Des had some fairly pithy things to say about the quality (or lack of it) in both the pro and con analyses that had been put forward. In the conclusion to his talk, Des reiterated the question in the title to his talk. Exactly who is a 'statistician'? In the real world of government and business decision making the answer to this question seems to be 'someone who can carry out a statistical analysis'. The Statistical Society is currently looking at the issue of professional accreditation. The same issue is being discussed in the United States (see the article by Stuart Hunter in the March 1992 Amstat News). The reality, as portrayed by the examples in Des' talk, is that the practice of statistics is not confined to 'professional' statisticians. This needs to be accounted for in the Society's deliberations on the issue of professional accreditation or registration. In turn, this requires the Society to define as clearly as possible what exactly is a 'statistician'.

NEWS ABOUT MEMBERS

There is no news about members this issue! The Editors would welcome items for this section from any member of the Society.

NEW DEPUTY AUSTRALIAN STATISTICIAN

The Australian Bureau of Statistics Deputy Statistician position, vacated by Mr Bill McLennan, has recently been filled by Dr Richard Madden. Dr Madden graduated from the Sydney University with an Honours degree in Statistics, and in 1971 he graduated from Princeton University with a PhD in Statistics specialising in time series analysis. Dr Madden has had a varied work career beginning at the Commonwealth Bank in Sydney before moving to Canberra to take up a position with the National Compensation Inquiry in 1973. In 1976, he took up a post with the Prince of Wales Hospital in Sydney to improve the efficiency and effectiveness of the Hospital's services, and in 1979, he became the Commonwealth/State Liaison person for the NSW Health Department. In 1980, Dr Madden took over the Division of Planning in the

Department working on resource effectiveness and equity, and in 1983 he became the Deputy Secretary of the Department. At the end of 1983, Dr Madden was appointed the Under Treasurer to the Northern Territory government and moved to Darwin. He came back to Canberra in 1987 as a consultant to EPAC before moving to the Disability Programs Division with the then Department of Community Services. In late 1988, Dr Madden became the Under Treasurer to the newly-formed ACT Government. This was his last position before being appointed to the Deputy Statistician position. We wish him well in his new job and hope that he can bring his valuable experience to bear in continuing the good work undertaken by his predecessor.

The University of Western Australia

PERTH

CHAIR IN MATHEMATICS (STATISTICS AND PROBABILITY)

Applications are invited for appointment to an established Chair in Mathematics. The appointee will be a distinguished scholar in an area of probability theory or mathematical statistics and will show academic leadership in promoting teaching and research.

The Department is a large and vigorous combined mathematics department with outstanding computing facilities. Research Strengths include pure and applied probability theory, theoretical and applied statistics, optimization, dynamical systems, fluid mechanics, image processing, mathematical ecology, group theory, algebra and combinatorics and operator theory. It is responsible for courses in pure mathematics, applied mathematics and mathematical statistics to honours level and for post-graduate studies in those areas. Post-graduate student numbers have increased sharply over the last few years and a new undergraduate degree has recently been set up. A Consulting Group within the department assists other University departments and outside organisations.

There are two other Chairs in Mathematics occupied by Professors A.I. Mees (Applied Mathematics), and C.E. Praeger (Pure Mathematics).

A remuneration package will be based on the professorial salary of A\$77,900 per annum. Benefits include generous superannuation, study leave with travel assistance after three years, eligibility for interstate travel grants, long service leave, assistance toward removal expenses and fares to Perth for the appointee and dependants. The opportunity also exists to undertake professional and consultative work in addition to academic activities. Further information concerning the conditions of appointment may be obtained from Mr S.E. Wiles, Personnel Services, telephone (09) 380 3070. Information relating to the structure and resources of the Department may be obtained from the Head of Department using telephone (09) 380 3342 or fax (09) 380 1028.

Applications addressing the selection criteria stating full personal particulars (including work and home addresses, telephone and facsimile numbers), qualifications and experience together with the names and addresses of three referees should reach the Director, Personnel Services, The University of Western Australia, Nedlands WA 6009 by 24 July 1992.

The University reserves the right to make no appointment or to fill the Chair by invitation.

The University is an equal opportunity employer and promotes a smoke-free work environment.

AUSTRALASIAN CONFERENCES

CONFERENCE SUMMARY

Workshop on Approximate Conditional Inference, 30 June - 3 July 1992, ANU, Canberra. (Full details in Newsletter 57.)

Information: Dr Andrew Wood, CMA, ANU, GPO Box 4, Canberra ACT 2601, tel. (06) 249 0705, fax (06) 249 5549, email woamath@durras.anu.edu.au.

11th Australian Statistical Conference, 6-13, July 1992, University of Western Australia, Perth, WA. (Full details in Newsletter 53, 54, 58 and this issue.)

Chairman of Programme Committee, Prof. Ian James, Mathematics, Murdoch University, Murdoch WA 6150, tel. (09) 332 2480, fax (09) 310 1711, email james@prodigal.murdoch.edu.au.

12th International Symposium on Forecasting (ISF-92), 7-10 August 1992, Wellington, New Zealand.

Information: Prof. L. Fraser Jackson, ISF-92, PO Box 10-277, Wellington, New Zealand.

Australian Population Association Sixth National Conference - Australian Population Futures, 28-30 September 1992, Manly Pacific Parkroyal, Sydney. (Full details in Newsletter 58.)

Information: Patrick Corr, Conference Registrar, Sixth National Conference, Australian Population Association, 13 Corben Avenue, Moorebank, NSW 2170, tel. (02) 268 4387, fax (02) 268 4334.

Young Statisticians Professional Development Workshop, 30 September - 2 October 1992, Newcastle.

Information: Craig Shaw or Paul Dickman, NSW Health Services Research Group, Department of Statistics, UNIVERSITY OF

NEWCASTLE NSW 2308; tel: (049) 215510, fax: (049) 684742, email: stpd@zeus.newcastle.edu.au.

Workshop on Practical Applications of the Bootstrap, 2-4 December 1992, Canberra.

Information: Kim Anh-Do, Statistical Sciences Division, CMA, Australian National University, Canberra, ACT 2601.

Analysis of Repeated Measurements Data: An Overview, Hamilton, 3-4 December 1992, New Zealand.

Note: To be held prior to IBC 92 at the University of Waikato.

Information: David Fletcher, Department of Mathematics and Statistics, University of Otago, Box 56, Dunedin, New Zealand.

Dynamic Graphical Analysis of Statistical Models, 6 December 1992, Hamilton, New Zealand.

Note: Short course prior to IBC 92.

Information: B. Dow, IBC 92 Secretary, Ruakura Agricultural Centre, Private Bag 3080, Hamilton, New Zealand.

The XVth International Biometrics Conference, 7-11 December 1992, Hamilton, New Zealand. (Full details in Newsletter 57, 58 and this issue.)

Information: IBC 92 Secretary, Ruakura Agricultural Centre, East Street, Hamilton, New Zealand.

International Conference on Environmental Biometrics, 14-15 December 1992, Sydney.

Information: Dr John Evans, Water Board, PO Box 73, West Ryde NSW 2114; fax (02) 334 0817. (More details this issue and full details in next issue.)

YOUNG STATISTICIANS PROFESSIONAL DEVELOPMENT WORKSHOP, Noah's on the Beach, Newcastle, 30 September - 2 October 1992

It's on again! Last year's very successful "Young Statisticians Professional Development Workshop" has led to another being organised jointly by the NSW and Canberra Branches, for this year. To take place at Noah's on the Beach in Newcastle, the workshop provides an opportunity for young (interpreted loosely) statisticians to meet and talk about their work in a non-threatening environment. Guest speakers at this year's workshop include Peter Hall from ANU, Ron Sandland from the CSIRO and Dennis Sinclair, Director of NewStat Statistical and Quality Consultants.

The workshop format is very easy going, with plenty of time for socialising as well as more serious statistical discussion. Participants are encouraged to make a short presentation on the work they are doing. This may be a description of the subject area they are working in or a description of their day-to-day working life.

The workshop is ideally suited to those who have completed an undergraduate degree (or are in their final year). As well as students and public sector employees, it is hoped that this year will see strong representation from young statisticians working in the private sector, especially those who might otherwise be isolated in their workplace.

Registrations will commence at 4 pm on Wednesday, 30 September, with the first session after dinner that evening. The workshop will conclude after lunch on Friday, 2 October. The cost will be \$210 per person (which includes all meals and twin-share

accommodation). There may be a discount for those giving presentations and who are members of (or join) the SSAI.

For more information contact: Craig Shaw or Paul Dickman, NSW Health Services Research Group, Department of Statistics, UNIVERSITY OF NEWCASTLE NSW 2308; tel: (049) 215510, fax: (049) 684742, email: stpd@zeus.newcastle.edu.au.

INTERNATIONAL CONFERENCE ON ENVIRONMENTAL BIOMETRICS, Sydney, 14 - 15 December 1992

A conference is proposed to bring scientists and statisticians to address problems in the environmental sciences. The meeting immediately follows the International Biometric Conference, being held in Hamilton, New Zealand, 7-12 December 1992, and is sponsored by the Statistical Society of Australia (NSW Branch), the Biometric Society (WNAF), the American Statistical Association (Section on Statistics and the Environment), the U.S. National Institute of Environmental Health Sciences, and the Sydney Water Board.

The conference provides an opportunity to improve coverage of the increasingly important role that statistical methods play in environmental studies of physico-chemical and biological 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; Environment 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 for consideration 16 October 1992 to either Dr John Evans, Water Board, PO Box 73, West Ryde 2114; fax (02) 334 0817 or Dr Walt Piegorsch, NIEHS/DBRA/SBB (Mail Drop B3-02), PO Box 12233, Research Triangle Park, North Carolina 27709, USA; fax (919) 541 4311. Full details of the programme and registration procedures will be advertised in August 1992. In the meantime, additional information may be obtained from John or Walt.

SATELLITE MEETING ON BIOSTATISTICS, Centre for Clinical Epidemiology and Biostatistics, University of Newcastle, 30 November - 2 December 1992.

Topics include: statistical analysis of pedigree data, statistical aspects of clinical trials and other topics in biostatistics.

For further information contact: Professor Annette Dobson, Department of Statistics, University of Newcastle, Newcastle NSW 2308, tel. (049) 215 544, fax (049) 684 742.

MOLECULAR EVOLUTION WORKSHOP, Rotorua, 2 - 4 December 1992.

Bruce Weir is organising a workshop in Molecular Evolution for 2-4 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.

PRACTICAL APPLICATIONS OF THE BOOTSTRAP, ANU, Canberra, 2 - 4 December 1992.

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

For more information contact: Dr Kim-Anh Do, Statistical Sciences Division, CMA, Australian National University, Canberra ACT 2601, tel. (06) 249 0564 or (06) 258 1708, fax (06) 249 5549, email dokstat@durra.anu.edu.au.

ANALYSIS OF REPEATED MEASUREMENTS DATA: AN OVERVIEW, Hamilton, 3 - 4 December 1992

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.

For more information contact: Dr David Fletcher, Department of Mathematics & Statistics, University of Otago, Box 56, Dunedin,

tel. +64 (3) 479 7890, fax +64 (3) 479 8427, email dfletcher@otago.ac.nz.

INTERNATIONAL WORKSHOP ON MATRIX METHODS FOR STATISTICS, University of Auckland, 4 - 5 December 1992

Cosponsored by the 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 to know who is coming and who is giving a talk by June 30, and would like title and abstract by 31 August 1992. If you are interested in participating in this workshop please contact: George PH Styan, Department 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, University of Waikato, 6 December 1992

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, Queenstown, 14 - 16 December 1992

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 to discuss some of the issues. Invited speakers will include Professor Norman Breslow, University of Washington, Seattle, Dr Michael Kenward, University of Reading, and Professor Alastair Scott, University of Auckland. Specific topics will include methods for discrete data or survival data, repeated measurements, estimating equations and random effects models.

For further information contact Dr Katrina Sharples, Department of Preventative and Social Medicine, University of Otago Medical School, Box 913, Dunedin, tel. +64 (3) 479 7221, fax +64 (3) 479 0529, email katrina@otago.ac.nz.

2ND AUSTRALASIAN GENSTAT CONFERENCE, Forest Research Institute, Rotorua, 14 - 16 December 1992

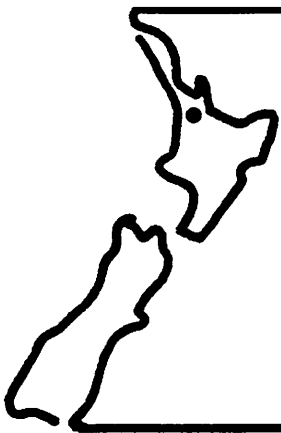
This is the second international Genstat conference to be held in Australasia. The conference aims to provide a forum for Genstat users to report on their research and consulting using Genstat, to exchange ideas, make suggestions, and to see the latest Genstat developments.

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 by 1 May 1992. Accepted contributions will be notified by 1 June 1992. 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, MAF, PO Box 24, Lincoln (email Bairdd@chpc.dsr.govt.nz).



1992 (XVIth) International Biometric Conference

Hamilton, New Zealand 7-11 December 1992

IBC92 Secretary
Ruakura Agricultural Centre
Private Bag 3080
Hamilton, New Zealand

Phone 64 (7) 856 2839
Fax 64 (7) 838 5012
E-mail (internet) ibc@ruakura.maf.govt.nz

BIOMETRIC SOCIETY

The XVIth International Biometric Conference

Hamilton, New Zealand, 7-11 December 1992

Contributed papers: call for abstracts

Contributed paper abstracts for IBC92 are due by July 1.

To help potential participants to gain a better idea of the shape of IBC92, we will try to provide some indication in the August Biometric Bulletin of the range of topics on offer in the contributed sessions. This newflash will necessarily be based on those papers offered before our publication deadline (early June), so speakers are urged to submit papers as soon as possible to help us help you reach the biggest possible audience.

Contributed papers may be offered on any topic of biometric interest in an oral session or in a poster session.

Oral Sessions

Sessions will consist of four to six related papers, each presentation being allocated fifteen minutes (plus five minutes for discussion).

Poster sessions

Poster sessions will be held in a centrally located hall. A board will be provided to display each poster. Each poster session runs for several hours and encourages interaction with the author. A

Macintosh SE or LC or IBM compatible PC 286 or 386 will be available, if requested on the submission form, for those wishing to show their work more dynamically, or for demonstrating original non-commercial software. (Commercial software may be demonstrated in exhibitions.)

For each oral or poster contribution an abstract must be prepared, following the abstract preparation instructions, and sent to the IBC92 secretary, to arrive by 1 July 1992. Abstract submission forms were enclosed in the March Newsletter.

To expand programme participation the number of contributed papers is limited to one per registrant. If too many papers are submitted for an oral session some papers may be shifted to a poster session. The contact author will be informed of this in good time.

Exhibitions

Booths for professional associations and technical displays including computer software, statistical packages and books can be arranged. If you would like a booth please contact the IBC92 Secretary, giving details of your exhibit.

Abstract Preparation Instructions

We will publish the abstract as submitted by the author(s). To ensure that your abstract is well presented please follow these guidelines and the sample abstract.

1. Abstracts must be typed or laser printed on the abstract form or a clean copy of it.
2. Use the full width of the abstract box. Any material outside the box will not be published. Conversely, ANY material inside the box WILL be published.
3. Type the title of the paper, in capitals, centred, at the top of the box with the author(s) name(s) and affiliation(s), centred, immediately below.
4. Use at least a 12 point font (Times is preferred) as the abstract will be reduced to 71% of its original size when published.
5. The abstract should state concisely the methods and results of the paper. References and graphs may be included.
6. Each submitted abstract must be accompanied by the completed submission and registration forms with registration fee of at least one author.
7. The abstract submission and registration forms should be sent (to arrive by 1 July 1992) to: IBC92 Secretary, Ruakura Agricultural Centre, Private Bag 3080, Hamilton, New Zealand.

General Conference Information

The Australasian region of the Biometric Society invites you to the sixteenth International Biometric Conference at the University of Waikato in Hamilton, New Zealand, from 7 to 11 December, 1992. This is only the second time an IBC has been held in Australasia; the first was in Sydney in 1967.

Invited Programme

The invited programme was printed in the March Newsletter.

Satellite Conferences

Information on the satellite conferences was published in the March Newsletter.

Registration

Registration forms were included in the March Newsletter. To attend the conference sessions and receive the conference proceedings you must have full or student (half price!) 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. All prices are quoted in New Zealand dollars. One NZ dollar is approximately 72 Australian cents.

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.

Ambassador Motor Hotel

Units are of varying size (twin or double beds with extra single beds) with bathroom, toilet, television and telephone; some with 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. Evening meal at the University.

Tuesday: 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 to Auckland, Rotorua, Waitomo, Mt Tongariro and Black Water Rafting include lunch.

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.

Pre and post conference tours

Special pre- and post- IBC92 Conference tours have been arranged. To receive the brochure detailing these tours please tick the appropriate place on the registration form or contact IBC Tours, Travel Time New Zealand, PO Box 6, Hamilton, New Zealand, Fax +64 (7) 838 1120. Travel Time welcomes enquiries on individual travel requirements.

All visitors to New Zealand require valid passports. Visas are not required for Australians.

Statistics In the Waikato

The statistical community in Hamilton centres on the neighbouring campuses of the University of Waikato and Ruakura Agricultural Centre. Co-operation between statisticians at the two locations is focused through the Waikato Centre for Applied Statistics (WCAS), directed by Dr Ray Littler. This Centre and The Unit for Quality and Productivity Improvement, directed by Professor J.A. (Nye) John, also provide courses and consultancy services to industry.

OVERSEAS CONFERENCES

International Conference on Econometric Inference Using Simulation Techniques, 5-6 June 1992, Rotterdam, The Netherlands.

Information: Mrs C.J.J. de Ruiter, c/o Tinbergen Institute, Erasmus University, PO Box 1738, NL-3000 DR Rotterdam, The Netherlands.

9th International Conference on the New Quality Philosophy in Statistical Research and Statistical Education, 6-8 June 1992, Sofia, Bulgaria.

Information: Prof. V. Shvyrkov, IS-SSE, 536 Oasis Dr., Santa Rosa, CA 95407, USA.

Fifth International Symposium on Statistical Decision Theory and Related Topics, 14-20 June 1992, West Lafayette, USA.

Information: Shanti S. Gupta, Dept. of Statistics, Purdue University, West Lafayette, IN 47907, USA.

International Conference on Computers and Learning, ICCAL'92, 17-20 June 1992, Nova Scotia, Canada.

Information: Dr Ivan Tomek, Jodrey School of Computer Science, Acadia University, Wolfville, Nova Scotia, Canada, B0P 1X0.

The 5th International meeting on Statistical Climatology (5IMSC), 22-26 June 1992, Toronto, Canada. Held jointly with the 12th Conference on Probability and Statistics in Atmospheric Science.

Information: Francis W. Zwiers, Numerical Modelling Division, Canadian Climate Centre, 4905 Dufferin Street, Downsview, Ontario, Canada M3H 5T4, phone 1-416-739-4415, fax 1-416-739-4521, e-mail acrmfz@cid.acs.doe.ca.

International Conference on Social Science Methodology, 22-26 June 1992, University of Trento, Italy, organized by the Research committee on Logic and Methodology of the International Sociological Association. Papers are invited in fundamentals of social science methodology, research design, data collection methods and data analysis techniques.

Information: H.M.A. Schadee/J. van Puffellen, Dipartimento di Politica Sociale, Via Verdi, 26, 38100 Trento, Italy, phone 39 461 8813313, fax 39 461 881499 or 881348, email CONF92 at ITNCISTI or SCHADEE at ITNCISTI.

GLIM 92 and 7th International Workshop on Statistical Modelling, 13-17 July 1992, Munich, Germany.

Information: Ludwig Fahrmeir, Seminar für Statistik, University of München, Ludwigstr. 33, D-8000, München 22, Germany.

Vth International Meeting of Statistics in the Basque Country, 3-7 August 1992, San Sebastian, Spain.

Information: J.P. Vilapana, IMSIBA-4, The Secretariat, PO Box 32, E-48940 LEJONA/LEIOA (Biscay), Spain.

1992 Joint Statistical Meetings, 10-13 August 1992, Boston, MA, USA.

Information: ASA, 1429 Duke St., Alexandria, VA 22314-3402, USA.

Second International Conference on Statistical Data Analysis Based on L1-Norm and Related Methods, 17-20 August 1992, Neuchatel, Switzerland.

Information: Prof. Yadolah Dodge, Conference Organizer, University of Neuchatel, Groupe de Statistique, Pierre-a-Mazel 7, CH-2000 Neuchatel, Switzerland.

Thirteenth International Meeting on Clinical Biostatistics, 17-21 August 1992, Copenhagen, Denmark.

Information: Karsten Schmidt, Spadille Biostatistik ApS, PO Box 25, NW Gadesvej 4, DK 3480 Fredensborg, Denmark.

Fourth International Conference on Statistical Methods for the Environmental Sciences, 17-21 August 1992, Espoo, Finland.

Information: A.H. El-Shaarawi, National Water Research Institute, PO Box 5050, Burlington, Ontario L7R 4A6, Canada.

7th International Congress on Mathematical Education (ICME-7), 17-23 August 1992, Quebec City, Canada.

Information: Congres ICME-7 Congress, Université Laval, Quebec, QC, Canada G1K 7P4.

10th Symposium on Computational Statistics (COMPSTAT), 24-28 August, Neuchatel, Switzerland.

Information: COMPSTAT Secretariat, Groupe de Statistique, Université de Neuchatel, Pierre-a-Mazel 7, CH-2000 Neuchatel, Switzerland.

Royal Statistical Society Conference, 9-11 September 1992, Sheffield, United Kingdom.

New contact: Dr Nick Feller, Department of Probability and Statistics, University of Sheffield, UK.

1992 European Meeting of Statisticians, 14-18 September 1992, Bath, UK.

Information: Prof. R. Sibson, School of Mathematics, University of Bath, Claverton Down, Bath BA2 7AY, UK.

Seventh International Conference on Multivariate Analysis (Part 2), 21-23 September 1992, Barcelona, Spain.

Information: C.M. Cuadras, phone 34-3-3308851, fax 34-3-4110969, e-mail d3escca0@eb0ub011.earn.

Seventh International Conference on Multivariate Analysis (Part 3), 16-22 December 1992, New Delhi, India.

Information: S.K. Mitra, phone 91-11-664741, telex 31-73274 ISI IN, e-mail isidimitra%vikram@shakti.ernet.in.

ASA Winter Conference, 3-5 January 1993, Fort Lauderdale, Florida, USA.

Theme: Families and Children - Research Findings, Data Needs and Survey Issues.

Information: Meeting Department, American Statistical Association, 1429 Duke Street, Alexandria, VA 22314-3402, USA.

NIH Conference in Current Topics in Biostatistics, 25-56 January 1993, Bethesda, MD, USA.

Information: Jonas H. Ellenberg, Biometry and Field Studies Branch, NINDS, NIH, 7550 Wisconsin Avenue, Room 7A-12, Bethesda, MD 20892, USA.

Biometric Society (ENAR) Spring Meeting, 21-24 March 1993, Philadelphia, PA, USA.

Information: Boris Iglewicz, Statistics Department, Temple University, Philadelphia, PA 19122, USA.

International Conference on Establishment Surveys, 27-30 June 1993, Buffalo, NY, USA.

Information: Brenda G. Cox, National Agricultural Statistics Service, USDA, 14th Street & Independence Avenue, S.W. Room 4835, South Building, Washington, DC 20250-2000, USA.

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Enquiries and subscriptions should be sent to:

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Advertising will be carried in the Newsletter on any matters which the Editors feel are of interest to the members of the Society. In particular, advertisements of statistical vacancies, statistical literature and calculators will be welcome. For details of advertising rates etc. contact either the Editors or Dr J.T. Wood at the same address.

Members are requested to notify their local branch secretaries (see this page of the Newsletter) of change of address, so that Newsletters and Journals can continue to be despatched to them.