



International Society for Clinical Biostatistics

Number 4 May 1987

Editor: D. W. Wilson

WELCOME TO GOTEBORG

ISCB-8 will be held in Goteborg, Sweden, in the lovely (hopefully) month of September. To many of you, Goteborg will be a new experience and, therefore, few words are needed to introduce it.

The city of Goteborg (Gothenburg) was founded in 1631 on the west coast of Sweden. Over the years its strategic location has meant a great deal for the development of the city and its close international contacts.

Goteborg is now the largest city in Sweden with a population of half a million people. It is Scandinavia's principle port and the site for the head offices of many of Scandinavia's largest industrial companies, such as Volvo and SKF, Ericsson, SAAB, Astra and other well-known firms have research laboratories and factories in the city.

Goteborg also has many internationally renowned research departments at its universities. Thirty thousand students are registered at the Goteborg University and at the Chalmers University of Technology.

In addition Goteborg boasts Scandinavia's largest sports and indoor arena and busiest amusement park. It is considered the capital of both soccer and handball in Sweden. Around Goteborg there is an abundance of beautiful scenic areas offering many recreational possibilities: ocean and archipelago, lakes, forests, mountains, and lush green golf courses and parks.

You can come to Goteborg by air, road or ferry. It has its own international airport with direct flights from Northern European capitals, a highway along the coast if you come by car via Denmark or Norway, and ferry-lines from the United Kingdom, Germany, Norway and Denmark.

Sweden has a reputation for a high cost of living which was well deserved a few years ago, by now the price levels are much the same as in the rest of Europe with the exception of items which you are well advised to purchase from any tax-free shop you will pass on the way.

You owe it to yourself to use this splendid opportunity to come to Sweden, we look forward to seeing you in Goteborg.

Dr. M. Lörstad,
AB Hässle, S-431 83 Mölndal,
SWEDEN



ISCB President 1986/87 Dr. Hélène Sancho-Garnier

Born in 1939, Dr. Sancho-Garnier obtained her Doctorate of Medicine from the University of Paris in 1966 and in the same year was awarded a certificate of biological statistics from CESAM. In 1968, she obtained a Masters certificate in human biological statistics and in the following year received a certificate equivalent to a Masters degree in statistical aspects of the human biology cycle. In 1977 she obtained a cervico-facial cancer qualification from the University of Paris — SUD.

Besides her University awards, Dr. Sancho-Garnier has held numerous hospital research and teaching positions. These have included consultative positions at the Gustave-Roussy Institute in the fields of skin cancer and medical statistics. In 1977 Dr. Sancho-Garnier was appointed Head of Applied Statistics in Clinical Research at the above Institute. In addition to research positions at INSERM, several permanent teaching posts were held at CESAM and the University of Paris — SUD.

The superb blend of academic research and teaching experience has made Dr. Sancho-Garnier a highly respected member of the medical statistics fraternity. In 1983, Dr. Sancho-Garnier hosted the ISCB-4 Meeting in Paris which was judged to be highly successful. This event became yet another important milestone in the development of the ISCB. As a result of her many outstanding contributions to medical statistics and the ISCB, Dr. Sancho-Garnier was elected President-elect (Düsseldorf) and became President of the Society at the ISCB-7 Meeting in Cardiff held in September, 1986.

In her Year of Office, Dr. Sancho-Garnier plans to further develop the rôle of the ISCB in the international sphere of medical statistics.

Executive Committee 1986/87

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OBITUARY — Professor H.-J. Jesdinsky (1931-1986)

Professor Hans-Joachim Jesdinsky died during his holidays in Ticino of a hill climbing accident on Thursday the 30th of October 1986.

Professor Jesdinsky was managing director of the Centre of Medical Psychology, Medical Sociology and Medical Statistics. He had also been Head of Biomathematics at the University of Düsseldorf since April 1975.

Professor Jesdinsky was born on January 27th, 1931 in Düsseldorf, where he passed his school-leaving examinations. After his studies at the University of Bonn he was licensed to practice medicine and in 1956 was awarded a doctorate by Professor Paul Martini on the correlation of energy transformation to muscle tone under emotional reactions. Until 1963 he mainly worked on the rather unknown subject of psychophysiological diseases at the University of Bonn. During his two-year employment at the pharmaceutical company E. Merck, Darmstadt, he carried out research on "Planning, Documentation and Evaluation of Drug-Efficacy" as well as "Experimental Animal and Bacteriological Examinations".

From 1963 to 1975 he worked as a scientific assistant at the University of Freiburg/Breisgau, where he also studied mathematics and statistics from 1965 to 1969. In 1969 he was a qualified lecturer in medical statistics and documentation.

Professor Jesdinsky was elected vice-president of the ISCB in September 1983, and assumed the Presidency from September 1984 to September 1985. He organised the 6th International Meeting in Düsseldorf which significantly contributed to the international expansion of the ISCB.

Professor Jesdinsky was also a member of a multitude of scientific societies, some of which he was also able to preside over due to his outstanding and internationally renowned knowledge and experience.

It was his academic standing, widespread knowledge and experience, scientific and personal keenness, impartiality and uprighteousness, that made him a valuable and almost indispensable adviser of many an institution, among which are:— Commissions of the EEC in Brussels; Federal ministries in Bonn (BMFT, BMJFFG); Deutsche Forschungsgemeinschaft (German Society for the Advancement of Scientific Research); Bundesgesundheitsamt (Federal Public Health Office); Deutsches Institut für Normung (German Institute for Standardization) and the Arztekammern (the Medical Societies).

Professor Jesdinsky's exceptional reputation was combined with an unparalleled humanitarian greatness and warmth, he had a sensitive interest in the wishes and sorrows of his colleagues and he expressed a vivid readiness for solving any problem.

The admirable qualities and virtues of Professor Hans-Joachim Jesdinsky will be greatly missed by us all.

Dr. Hélène Sancho-Garnier
President ISCB

Scientific Programme Committee

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*deceased 30/10/86

Local Organizing Committee

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S. Eriksson, AB Hässle, Mölndal.
R. Jonsson, Dept. of Statistics, University of Goteborg, Goteborg.
L. Råde, Dept. of Math., Chalmers University of Technology, Goteborg.

ISCB-8 Programme

Preparations for the ISCB-8 are proceeding on schedule and the many contributed papers received, indicate that the Goteborg meeting will be highly successful. This shows that our Society is growing in number and stature year by year.

Invited Speakers by main subject *

Clinical Trial Methodology

Byron W. Brown, Stanford, USA; Sheila Gore, Cambridge, UK; Robert O'Neill, FDA, USA; John W. Tukey, Princeton, USA

Epidemiology

Odd Aalen, Oslo, Norway; Ollie Miettinen, Montreal, Canada

Exploratory Data Analysis

Adriano Decarli, Milan, Italy

Statistical Documentation

Marc Buyse, EORTC, Belgium; John Lewis, ICI, UK

Bioequivalence

Bruce Rodda, MSD, USA; Wilfred W. Westlake, SK&F, USA

MINISYMPOSIUM I: Prevention of Cardiovascular Disease

Ingar Holme, Oslo, Norway; Richard Peto, Oxford, UK; Salim Yusuf, NIH, USA

MINISYMPOSIUM II: Post-Marketing Surveillance

W.H.W. Inman, Southampton, UK; David Lane, University of Minnesota, USA; Michael Rawlins, Newcastle, UK; Jan Venulet, Ciba-Geigy, Switzerland

*Provisional

BECOME A MEMBER OF ISCB (International Society for Clinical Biostatistics)

Support our aim to stimulate research on the principles and methodology in the design and analysis of clinical research, to increase the relevance of statistical theory to the real world of clinical medicine; and, through scientific meetings to create an opportunity for the exchange of knowledge, experience and ideas among clinicians, statisticians and members of other disciplines (e.g. epidemiologists, clinical chemists and clinical pharmacologists) working in, or interested in, the field of clinical biostatistics.

For only £15 you may take out ordinary membership.

If at the same time, you take out a subscription to 'Statistics in Medicine' (Volume 1987), this will only cost you an additional £49.00, if you live in the UK (as against the ordinary subscription rate of £98), and £59.00 elsewhere (as against the ordinary rate of \$US175, just over £100, although dependent on exchange rates). For application of membership contact the Honorary Secretary, Dr. J. Seldrup, Ciba-Geigy Pharmaceuticals, Wimblehurst Road, Horsham, West Sussex RH12 4AB UK.

NEWS AND VIEWS ISCB-7, CARDIFF

LETTER OF ACKNOWLEDGEMENTS

At the ISCB-7 conference dinner, Dr. Douglas W. Wilson, President (1985/6) and Chairman of the Local Organising Committee thanked Professor Keith Griffiths, Director of the Tenovus Institute for Cancer Research, University of Wales College of Medicine, for his support of the ISCB and for the assistance given by his staff during the organization of the meeting.

Members of the Programme Committee (chaired by Dr. K. McPherson), the Executive Committee and the Local Organising Committee were also thanked for their support. Many people from industry, research establishments, universities and hospitals contributed to the success of the Cardiff Meeting. Sponsorship of the ISCB by companies and institutions, both large and small, local and overseas meant that the viability of the Meeting was assured.

A special thanks must also go to Professor E. Gehan and his American colleagues for the organization of a course on clinical trial methodology. This gave the ISCB a new perspective, namely that of teaching the principles of specialized topics in Biostatistics.

Many invited speakers from the U.K. and overseas travelled at their own expense. This measure of support for the ISCB enabled a full programme of topical subjects to be organized into plenary sessions which were properly represented. In this regard, members of the British Prostate Study Group are particularly acknowledged for their support in the setting up of the mini-symposium on Human Prostatic Disease. Of course, no meeting can be a success without the participation of the delegates and their support was invaluable. The ISCB-7 Meeting was regarded by Dr. Wilson as very much a team effort by all those concerned and he felt privileged to be able to take part in such a venture. The gathering momentum of the ISCB continues and we can look forward to an exciting ISCB-8 programme in Goteborg, Sweden.

TEACHING BIOSTATISTICS PARTICULARLY IN DEVELOPING COUNTRIES

Professor Armitage, in a short address made at the conference dinner, high-lighted the importance of teaching medical statistics in developing countries. He made particular reference to the session chaired by Professor R. Harris and suggested that this was one activity that the ISCB might like to pursue.

In his summary as Chairman of the contributed paper session concerned with training medical statisticians and teaching statistics, Professor Ray Harris high-lighted two major issues. Firstly the differing needs (in terms of training) of statisticians working in medical fields and of clinicians appreciating and indeed relying on statistical analyses. He commented that although the papers of Chastang and Evans had exemplified this dichotomy and illustrated useful approaches, there was still a need to consider the training of statisticians who may subsequently work in clinical applications.

The second major issue high-lighted was such training in the developing nations of the world. It was indeed a pity that two speakers who might have addressed this issue more forcefully were not able to attend, but their non-attendance indicated one of the problems — funding! However, it is not only funding (for travel and training) that presents us with a problem, it is also the provision of *appropriate* training and Professor Harris high-lighted a number of issues of both content and delivery that he regarded as of major importance. He felt that the experience of the Institute of Statisticians (IoS) of world-wide training and examining in statistics could well be put together with the collective experience of ISCB in a fruitful collaboration in medical statistics training in the developing countries.

Since the Cardiff meeting both Doug Wilson and Ray Harris have received encouragement from those who heard, or have heard of these comments and preliminary informed discussions have taken place between representatives of ISCB and IoS, with a more formal meeting being planned. Members of ISCB will be kept informed of progress through these columns and by reports to future ISCB meetings. Any member wishing to comment can contact Doug Wilson at Tenovus or Ray Harris at Lancashire Polytechnic, Preston, U.K.

Although Ray Harris has not been active within ISCB over the past two years, members will recall that he was a founder member of ISCB, in that he read a paper to the inaugural ISCB meeting in Brussels in 1979. He organised ISCB-2 in Exeter and was Acting Chairman of the Committee in its formative years until ISCB-3 in Rotterdam. His work in applied clinical biostatistics has somewhat taken a back seat in his current post as Head of the School of Mathematics and Statistics at Lancashire Polytechnic but he has been very active in the educational and technical aspects of statistical training.

Members may be interested to know that his interest has led to the formation of the Institute of Statisticians Statistical Training Centre based at Lancashire Polytechnic. This will be involved in many aspects of the training of statisticians, short and long courses, distance learning, in-house courses, publications, advice on syllabus content and delivery mechanisms, and so on. Importance is also placed on the use of the Centre as a base for visitors not only to be involved in its work but also to undertake a programme of work and visits for their own professional development. Courses will also be made available for the qualifications of the IoS, namely the Ordinary Certificate, Higher Certificate and the Graduate Diploma in Statistics. The Centre will also act as host for discussion meetings, for example on syllabus development, comparability of qualifications, and so on. Anyone interested in any of the activities or requiring more information should contact Ray Harris at the IoS Statistical Training Centre, Lancashire Polytechnic, Preston, PR1 2TQ U.K. Telephone 0772-262236. Telex 677409 LANPOL.

ISCB/IoS COLLABORATION

On 15-17 September 1986, The Institute of Statisticians attended ISCB-7 on the site of the University of Wales in Cardiff. It was represented by Mr. P. S. Cleary, Secretary General, and Mrs G. A. S. Blackman, Education Secretary.

It was an excellent event, obviously much enjoyed by all participants, the Institute's representatives included! It was particularly encouraging for the Institute of Statisticians to be greeted with a great deal of interest, especially when giving an overview of the inter-disciplinary (as well as international) collaborative exercises it is currently involved in. Europe is undoubtedly moving towards a harmonized approach to not only statistical education — within industrial, economic and medical studies — but also to the concept of professionalism, and the Institute of Statisticians is already playing a major rôle in these areas.

The Institute does not, however, forget its world-wide rôle and long standing involvement in the development and promotion of statistical education and training in developing countries. The area of medical statistics is one the Institute perceives as being of particular relevance and paramount importance in Africa today — the Statistical Training Committee of the Institute of Statisticians is therefore committed to increasing local and governmental awareness in this field so that immediate training schemes may be put into action and long-term prospects considerably improved.

Lastly, the Institute actively promotes close collaboration with other organisations since this benefits not only the institutions involved but also the scientific discipline and the professional applications they seek to enhance and represent. The Institute of Statisticians would therefore look very favourably upon the possibility of running any joint ISCB/IoS events in future as well as any other collaborative projects the Society might wish to consider.

Any further information on the Institute of Statisticians can be obtained from: The Secretariat, 36 Churchgate Street, Bury St. Edmunds, Suffolk, IP33 1RD UK. Tel: Bury St. Edmunds (0284) 63660.

SIRMCE

(An international group set up to Study Civilization Diseases.)

Three members of the Executive and Scientific Council of SIRMCE contributed to the ISCB-7 plenary session on Quality Control/Chronobiology. The importance of time series analysis in many aspects of medicine is recognized by SIRMCE, particularly those areas concerned with 'cardiovascular risk'. Indeed, one presentation 'Hypertension: the silent killer' outlined one of the major activities of SIRMCE. At this meeting a number of participants were interested in SIRMCE but had no knowledge as to its aims and objectives. In response to these enquiries, a brief synopsis of SIRMCE activities now follows.

SIRMCE, which is an international group working together in Europe and in the rest of the world, plays a triple rôle as an observatory, as a laboratory and as a prevention centre for the diseases provoked by the human through the environment. The degradation of the natural landscape sites and of the vegetal reign is not different from the degradation of the health of human and animal bodies. Therefore it is necessary to explore all the aspects of these perturbations, to try to find out their causes and to find remedies in order to avoid further destruction of the patrimony of our marvellous satellite of the Sun, the Earth.

In the past, SIRMCE has organized several Workshops, Congresses and Symposia in many countries in Europe, pointing its interest to such problems as Pure Milk, Metal Poisoning in food and industry, Lodging and Comfort, among others. Thanks to the efforts of that Society and of her president, Dr. Klein, she has been elected as a Consultant of the W.H.O. which demonstrates her central rôle in helping to preserve health in all fields.

Actually she has a new step in her activities, deciding not only to analyse the causes of the decline of our world and natural environment, but to intervene actively in the recuperation of the environment to a normal standard. Among the fixed goals are the problems of Cancer and Hypertension, which may be considered as the consequences of the degradation of the civilization equilibrium. Alcoholism, smoke, pollutants, erosion of the earth's surface, heavy industry, over-concentration of population in some areas, uncontrolled explosive increase in humans, food alteration, shortage or excess of production, all these elements may be or become factors of increasing importance in the degradation of the surroundings, favouring the imbalance of the health factors.

SIRMCE is working on a plan to investigate more closely the risk factors of cancer and on the efforts which have to be made to avoid it, eventually to cure it, once the exact origin of its different forms can be ascertained. Concerning Hypertension, a project is actually under way to investigate the possibilities of its prevention by a systematic screening at any age with new exploratory methods, like ambulatory blood pressure monitoring.

Such programmes need the help of the institutional organizations and may be realized with help from W.H.O. and the E.E.C. First of all they need the good will of persons who want to devote their time in helping to solve these problems. Efforts are being made to constitute working groups all over Europe and in other parts of the world in order to come to a general consensus for the realization of such an enterprise.

SIRMCE argues the fact that it is never too late to do well, without being an alarmist. If nothing is done soon, however, many of the detected troubles will become irreversible, much to our great cost. Therefore a financial effort has to be made, both private and institutional, to receive from these sources all the imaginable help needed to come to tangible results. The human potential is the most important factor in all this work.

SIRMCE is a non-profit organization to which each person may join and devote time according to one's own profile. With such a concentrated effort important progress may be obtained in a short time, before it becomes too late.

R. Wegmann
Assistant President, Director Institut Cadmos,
234 rue Faubourg St.-Honoré, 75008 PARIS

Those interested in joining SIRMCE, should write to Dr. G. Magnus, Scientific Secretary, SIRMCE International Office, 61 rue E. Bouillot bte 11, 1060 Brussels, Belgium. Those resident in the U.K. and English speaking countries should write to Dr. D. W. Wilson, Tenovus Institute for Cancer Research, Heath, Cardiff CF4 4XX U.K.

Bulletin of Medical Congresses

The 'Federazione delle Società Medico-Scientifiche Italiane' publishes a bulletin of medical congresses to be held in the subsequent year. Those interested in providing material for this bulletin should contact Professor Girolamo Sirchia, Centro Transfusionale e di Immunologia dei Trapianti, Ospedale Policlinico, Via Francesco Sforza 35, 20122 Milan, Italy.

Continuing our service to members and readers of ISCB News, we list personal reviews of books from Marcel Dekker Inc.

R. G. Cornell (Editor)

Statistical Methods for Cancer Studies

The nine chapters of this book, contributed by more than a dozen authors, cover statistical methods for a very wide range of cancer epidemiological and related topics. These include occupational mortality studies, case-control studies, survival analyses, space-time clustering, genetic studies of HLA and cancer, evaluation and planning of screening programmes, and animal carcinogenicity experiments.

Most of the chapters take the form of reviews of methods rather than operational handbooks for their implementation. It is perhaps especially unfortunate, therefore, that the volume has been presented for review two years after publication, and that, to judge from references cited, many of the contributions were finalised considerably earlier. Nonetheless, even in fields such as these, in which new publications accrue rapidly, good reviews of the art in the state in which it was to be found a few years ago can be valuable, especially as starting points for newcomers to a particular topic.

Some of the contributions meet this need admirably. For example, Breslow and Day's chapter on the familiar subject of methods for case-control studies is a tour de force. It provides a succinct introduction to the basis of inference in such studies, making clear the relationships between logistic models and analyses of 2×2 tables in this context, and the assumptions underlying the use of the various methods.

G. W. Williams' review of methods for studying space-time clusters sets out rather more than the average cancer epidemiologists will probably want to know, but in a systematic and accessible way which highlights the advantages and disadvantages of alternatives to Knox's method. Similarly, Cornell, Wolfe and Butler's chapter on the analysis of animal carcinogenicity experiments deals not only with analyses of time to tumour development but also with models for extrapolation of results to low doses.

Gart and Nam's account of methods for studies of HLA and cancer is also worthy of mention as it to some extent bridges the gap between the literatures of genetics and statistics/epidemiology. With such authorship a good deal on the analyses of 2×2 tables is only to be expected. The problem of multiple testing (of several antigen or gene frequency differences) is briefly addressed, and omnibus tests of these differences proposed as one solution.

The remaining chapters are on the whole unexceptional, and, except in detail, unexceptionable, although some are of rather self-indulgent length. Selective reading of this book will undoubtedly be worthwhile for many statisticians/

epidemiologists with an interest in cancer studies, but a few will require their own copy. It is, in short, a book to borrow, not to buy.

D. R. Jones (Clinical Epidemiology & Social Medicine, St George's Hospital Medical School, London SW17 ORE)

B. G. Cox and S. B. Cohen
Methodology Issues for Health Care Surveys

This volume is a component of a series entitled "Statistics: Textbooks and Monographs". This should alert readers to the fact that this book, as its title indicates, is concerned with the methodological and statistical factors associated with the use of sample surveys to collect data about health status and health care provision.

The authors use two sets of data, the 1977 National Medical Care Expenditure Survey (NMCES) and the 1980 National Medical Care Utilization and Expenditure Survey (MCUES), to explore the major methodological issues facing those using survey techniques to consider patterns of health status and health care. Topics explored by the author include survey design procedures, weighting, problems of non-response and running data as well as describing appropriate techniques for the analysis of survey data. Background issues such as the specification of survey objectives, definition of the study population, and sampling frameworks are addressed. Readers are also given an overview of health care data and its application, although this is of limited use to British readers, as the discussion is confined to the major U.S. health data systems.

This book deals clearly and concisely with the major substantive and statistical issues associated with the use of sample population surveys to collect data about health and health care. The book is well written and provides, within a single volume, an extensive amount of previously unpublished data relating to the major methodological aspects of sample surveys. The book deals with these topics from the perspective of health care professionals rather than statisticians. Consequently it is probably most appropriate to health professionals and social researchers who wish to explore the methodological issues of survey research in more detail. The specialist statistician will probably find this volume of less use as it is principally aimed at practising survey researchers.

Dr. Christina R. Victor (Department of Community Medicine and Epidemiology, Queen's Medical Centre, Nottingham)

David S. Salsburg
Statistics for Toxicologists

This is a refreshing book. David Salsburg is an enthusiast about his subject and this is transmitted by his style of writing. The book is intended for the toxicologist who wishes to gain an insight into statistical methods which can be applied to his field.

It is organised as three units each dealing with a basic type of toxicological study — the LD₅₀ study, subchronic and chronic studies. Each protocol is used as a vehicle to explain the statistical methods that can be used and on a more general level, to discuss the principles involved. This format has the advantage of making the material more accessible to the reader than is common in many books of the "Statistics for Non-Statisticians" variety. It is a pity that other areas of the subject (for example, reproductive and genetic toxicology) are not included as these would broaden the appeal of the book and give scope to discuss many other statistical approaches.

The book does have more serious drawbacks. On a superficial level it is marred by a fairly large number of typographical errors. The use of graphs to illustrate points is often helpful but is sometimes spoilt by lack of care. For example, one graph plots the proportion of deaths (in an LD₅₀ study) on a scale of 0 to 1.5 on one axis and omits to give any units of dose (or should it be log dose?) on the other. Attempts to explain formulae in words — a necessary feature — do on occasions lead to some imprecise (and sometimes incorrect) statements.

Salsburg has an individual approach to issues which can be very interesting. For example, his thoughts on the way the use of multivariate techniques could be developed in chronic studies are very stimulating — even if the established techniques for analysing tumour data could have been explained a little more clearly (or at least a reference given to the excellent IARC monograph by Peto et al). Salsburg's choice of material is also a little individual in places.

For example his inclusion of a description of jackknife techniques when discussing LD₅₀ estimating owes more to the author's research interest in the subject rather than its relevance in this context. There are omissions too. When considering tests of significance against ordered alternatives (motivated by the dose structure common in toxicology studies) no mention is made of the work of D. A. Williams.

In summary, this is an interesting book written by someone who clearly has a considerable knowledge of applying toxicological studies. Despite being flawed by careless production and occasionally sloppy thinking (and even out and out errors) it does provide a lively and informative introduction to the subject.

R. A. Ferguson (ICI Pharmaceuticals Division)

The views of Contributors should not be ascribed to the International Society for Clinical Biostatistics.

PRESS RELEASES

From Marcel Dekker Inc.:

Albert/Harris: **Multivariate Interpretation of Clinical Laboratory Data.**

Edgington: **Randomization Tests, Second Edition.**

Freeman: **Applied Categorical Data Analysis.**
Kleijnen: **Statistical Tools for Simulation Practitioners.**

From Charles Griffin & Co. Ltd.

Stuart/Ord: **Kendall's Advanced Theory of Statistics 5th Edition of Volume 1: Distribution Theory.**

MULTIVARIATE INTERPRETATION OF CLINICAL LABORATORY DATA

By Adelin Albert and Eugene K.Harris.
1987. 328 pages, bound, illustrated. Marcel Dekker Inc. \$69.75 (U.S. and Canada); \$83.50 (All other countries). ISBN: 0-8247-7735-2.

This important new reference provides *the only available coverage of single-sample, repeated-sample, and related ancillary methods* that anticipate actual laboratory conditions when performing Multivariate Interpretation of Clinical Laboratory Data.

Focussing on statistical methodology for use in patient monitoring and management as well as one-time diagnosis, this book offers a sound background in mathematical statistical notation, and defines, early on, terms and concepts used throughout the book . . . provides a smooth transition from simple (univariate) to more complex (multivariate) problems. . . supplies a general statistical tool for summarizing multivariate data to help distinguish between disease categories . . . helps predict patients' future states based on clinical data and laboratory test results . . . familiarizes users of clinical laboratory test data with the latest statistical methods of analysis . . . and much more.

Additionally this volume contains two computer programs to implement some of the methods discussed in the book: a program for multiple group logistic discrimination and a program for analysis of series, equispaced observations.

READERSHIP: *Clinical chemists, clinical pathologists, bio-statisticians, and physicians involved in patient management or prognosis using laboratory tests.*

RANDOMIZATION TESTS, SECOND EDITION

By Eugene S.Edgington. 1987. 368 pages, bound, illustrated. Marcel Dekker Inc. \$55.00 (U.S. and Canada); \$66.00 (All other countries). ISBN: 0-8247-7656-9.

Written both as a practical guide for experimenters on the use of randomization tests and as a textbook for courses in applied statistics, the Second Edition of this outstanding book now provides historical background of randomization tests focussing on the work of R. A. Fisher and E. J. G. Pitman, plus major advances since their time . . . randomization tests for

Press Releases (Cont.)

factorial designs, including a useful computer program . . . additional single-subject and other tests and examples demonstrating new applications of randomization tests . . . and randomization test theory, using a principle developed by J. H. Chung and D. A. S. Fraser. Generously illustrated with tables and diagrams that make ideas and results conveniently accessible, **Randomization Tests, Second Edition** is ideal reading for both researchers and students using and applying this statistical technique.

READERSHIP: *Applied statisticians and researchers in such fields as psychology, education, medicine and biology, as well as advanced undergraduate and graduate courses in nonparametric statistics.*

APPLIED CATEGORICAL DATA ANALYSIS

By Daniel H. Freeman, Jr. 1987. 328 pages, bound, illustrated. Marcel Dekker Inc. \$69.75 (U.S. and Canada); \$83.50 (All other countries). ISBN: 0-8247-7752-5.

Providing researchers — and students — with a clear introduction to some of the major techniques used in analyzing categorical data, this volume includes a review of probability and some common discrete distributions . . . presents log-linear models, weighted least squares, and logistic regression . . . discusses techniques for small samples and for survey samples . . . and provides SAS or BMDP software for more than two variables, whose computations require the use of a computer.

READERSHIP: *Biostatisticians and epidemiologists; and graduate and undergraduate students of biostatistics and statistics, as well as students taking basic statistics courses in connection with majors in public health, epidemiology, sociology, anthropology, demography, medicine and psychology.*

STATISTICAL TOOLS FOR SIMULATION PRACTITIONERS

By Jack P. C. Kleijnen. 1987. 448 pages, bound, illustrated. Marcel Dekker Inc. \$69.75 (U.S. and Canada); \$83.50 (All other countries). ISBN: 0-8247-7333-0.

Statistical Tools for Simulation

Practitioners enables the simulation practitioner to realize a sound statistical design and analysis of a simulation experiment. It focuses on those statistical techniques, such as experimental designs and regression metamodells, that are especially useful to simulation practitioners, while eliminating those of little practical use.

This valuable reference answers important basic questions, such as: How long should we continue a specific simulation run? When the run is stopped, what is the resulting value of the estimator and how accurate is it? Which variants of the simulation model — which combinations of

parameter values — will we actually run? How can we analyse the voluminous output data?

Among the major topics treated in depth are run length and confidence intervals . . . regression analysis . . . experimental design . . . and much more.

READERSHIP: *Simulation researchers working in engineering, computer science, biology, and all other fields using mathematical models; statisticians; graduate courses in statistical aspects of simulation; undergraduate and graduate courses in mathematical statistics.*

KENDALL'S ADVANCED THEORY OF STATISTICS 5TH EDITION OF VOLUME 1: DISTRIBUTION THEORY

By Alan Stuart and J. Keith Ord. 1987. Charles Griffin & Co. Ltd. ISBN 0-85264-285-7.

It is nearly ten years since the publication of the last revision of volume one, and the authors have felt it desirable to extend their latest revision of the work into a projected four volumes, of which this is the first.

The Advanced Theory of Statistics is unquestionably unique, and this four volume edition by Professors Stuart and Ord represents a complete reappraisal of the earlier work.

The entire text has been revised and terminology and proofs modernised. There are many new examples in the text, and a new index to locate the examples, and many new exercises at the ends of chapters.

Chapters 5 and 6—the central chapters on distributions—have been greatly enlarged, the former in particular being extensively restructured, with new tables and diagrams to emphasise the relations between different distributions and systems of distributions. Chapters 7 and 8 have been rewritten to give a modern presentation of the fundamentals of probability, and permit a more extended treatment of elementary Bayesian inference. Chapter 9 has an extensive new treatment of the computer-generation of pseudo-random numbers and its application to sampling experiments (Monte Carlo methods).

The theoretical treatments elsewhere in the book have been extended to include coverage of important topics in current research—for example, smoothing, kernel estimators, density estimation, the exponential family, saddlepoint approximations, fractional and negative moments, and robustness.

In all, this new edition contains the most extensive re-writing of the work since its first appearance in three volumes in 1958, and in its scope and authority the fifth edition of **The Advanced Theory of Statistics** constitutes both a major achievement of mathematical scholarship, and a worthy contemporary representation of Sir Maurice Kendall's first conception of more than forty years ago.

1987 Calendar

June 87

3rd Valencia International Meeting on Bayesian Statistics

Valencia, Spain
Contact: Ms Lelia Mendoza, Dept. Bioestadística/Fac Medicina, Avda Blasw, Abanez 17, Valencia 10 Spain.

June 11-16

European Population Conference 1987

Finland
Contact: Dr. Altti Majava, Chairman of the Organizing Committee, c/o FINNCO-Travel Experts, PO Box 722, SF00101, Helsinki, Finland.

July 6-10

Workshop on the Theory and Application of Generalized Linear Models

Perugia, Italy
Contact: A. Forcina, 1st Di Statistica, Univ di Perugia, Via A. Pascoli, 60100 Perugia, Italy.

July 27-3 August

International Congress on Mathematical Education

Budapest, Hungary
Contact: Jill Nelson, Royal Society, 6 Carlton House Terrace, London SW17 5AG UK.

July 28-31

Statistical Forecasting and Decision Making

Cambridge, UK
Contact: Mrs. L. Butterworth, The Conference Secretary, The Institute of Statisticians, 36 Churchgate Street, Bury St. Edmunds, Suffolk IP33 1RD UK. Tel: 0284 63660.

August 29-1 September

3rd International Conference on Pharmacoepidemiology

Minnesota, USA
Contact: Dr. Stan Edlavitch, Division of Epidemiology, School of Public Health, University of Minnesota, 611 Beacon St., SE Minneapolis, Minnesota 55455.

August 16-21

16th Congress on Stochastic Processes and their Applications

Stanford, USA
Contact: Donald Iglehart, Dept. of Operations Research, Stanford University, Stanford, CA 94305-4022 USA.

August 24-28

17th European Meeting of Statisticians

Thessaloniki, Greece
Contact: Prof. S. Kounias, Aristotle University of Thessaloniki, Thessaloniki, Greece.

September 14-15

5th GENSTAT Conference

Pavia, Italy
Contact: R. W. Payne, Statistics Dept., Rothamsted Experimental Station, Harpenden, Herts AL5 2JQ UK.

September 21-25

Medical Informatics Europe 87

Rome, Italy
Contact: Organizing Secretariat MGA, Via P. Cossa, 41 00193 Roma, Italy.

Correspondence for, or about, the Newsletter should be sent to:
Dr. D. W. Wilson,
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Heath, Cardiff
CF4 4XX UK.