

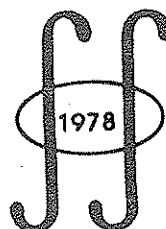


NEWSLETTER

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NUMBER 11

APRIL 1978

FIRST
AUSTRALASIAN
MATHEMATICS
CONVENTION

*Monday 15 to Friday 19 May 1978
University of Canterbury, Christchurch, New Zealand.*

The New Zealand Mathematical Society extends a warm welcome to everybody attending this very important convention. We hope it will be the first of many.

HUMAN RIGHTS OF MATHEMATICIANS

The November 1977 issue of the Notices of the American Mathematical Society contains a report of the AMS Committee on Human Rights of Mathematicians (pp431-432). The committee has made representations on behalf of several "foreign mathematicians whose human rights have been violated", including Jose Luis Massera (Uruguay), N.N. Meimam and Joseph Begun (USSR), and Ibrahima Ly (Mali). They have also been collecting information on the repression of intellectuals in Argentina and on "Berufsverbot" in the Federal Republic of Germany.

In the past, the NZMS has taken up the cases of Leonid Plyushch (see Newsletter No.5, p2) and Jose Luis Massera (see Newsletter No.9, p10). Members may like to consider the extent of our future involvement in this area.

SECOND REGIONAL MECHANICS AND MATHEMATICAL PHYSICS WORKSHOP

Staff members and graduate students from the Departments of Mathematics, University of Waikato, and Theoretical and Applied Mechanics, University of Auckland, held their second workshop in the relaxing atmosphere of the Matamata Soaring Club's premises at Waharoa on 17-18th February.

The session on Tuesday was chaired by Dr. Mary Fama and six talks in the solid mechanics area were presented. Susan Spencer outlined her approach to the evaluation of stresses around a pair of holes in an elastic half space, John Dempsey presented a report on his analysis of stress singularities engendered by a wedge in plane elasticity problems and Professor Cecil Segedin discussed a lumped mass model approach for a vibrating cable which leads to a recurrence formulation. Grant Christie made two presentations, the first on boundary integral methods in stress analysis and the second on a finite element model of the highly nonlinear human aortic valve leaflet, and the session finished with a presentation of a recurrence approach to the buckling of interbraced columns by Ian Medland.

After a relaxing evening a second session was held on Wednesday morning, chaired by Professor Segedin with emphasis on fluid and magnetohydrodynamic problems. Mike Bundock described his numerical method for calculating twodimensional air flow over a sail. Robert McKibbin spoke on lee waves in a single fluid layer model and Alfred Sneyd posed the problem of estimating the circulation generated in non-circular containers of fluid by motion of the boundary. Professor Roger Hosking and David Kinzett discussed a numerical code for analysing dissipative plasma stability and Ian Urch described the mathematics of cosmic ray propagation through the solar system.

It was agreed that the next such gathering should be held in 1980 because of a heavy schedule during the early part of 1979, including the ANZAAS conference in Auckland and the N.Z. Mathematics Colloquium in Hamilton.

I C M

It is amazing how badly a skilled geometer can stray from the truth in the physico-mathematical sciences, when he wishes to draw everything from theory without any recourse to experiments.

Clairaut (on Euler)

THE NEW ZEALAND MATHEMATICAL SOCIETY

The New Zealand Mathematical Society was established in 1974 to promote the development, application and dissemination of mathematical knowledge within New Zealand and to assist mathematicians in New Zealand to maintain effective co-operation with one another and with colleagues and mathematical societies in other countries.

Publications

The *Newsletter* which has rapidly grown to a publication of about twenty pages, comes out three times a year. It publicizes the business of the society and gives details of activities we sponsor. It reports conferences, news of mathematical organisations and visiting mathematicians and features studies of employment and other matters effecting mathematicians in New Zealand. The Society has produced a brochure *Employment Opportunities in Mathematics* which is intended to be repeated at intervals. It is a detailed survey of jobs in mathematics within New Zealand, with advice about seeking jobs, an outline of job prospects, present commentaries of people using mathematics in their job and other career suggestions. Our yearly compilation *Post-graduate Topics in Mathematics* is a list of research topics and supervisors available in New Zealand universities. It is for the information and guidance of students of mathematical subjects considered for post-graduate work. Other sporadic publications which are planned include a brochure on mathematical education and texts of lectures and conference abstracts.

Other Activities

The Society has an essay competition for advanced students. We sponsor a special lecture at each mathematical colloquium. We also have a visiting lecturer scheme and we promote regional meetings on specialized mathematical subjects.

Membership

Members are able to receive the New Zealand Mathematical Chronicle at a reduced rate and to become reciprocal members of a number of overseas societies including the Australian, South East Asian, London and Edinburgh Mathematical Societies and the Canadian Congress. Membership fees are due on the first of April each year. The full subscription is \$7.00 and the student rate is \$1.00. Applications for membership should be made to the Treasurer (Dr I.L. Reilly, Department of Mathematics, University of Auckland).

AUSTRALIAN MATHEMATICAL SOCIETY

The Society was established in 1956, with the late Professor T.M. Cherry, FAA, FRS, as the first President. Its objects are the promotion and extension of mathematical knowledge and its application. General meetings are held at approximately annual intervals, usually in one of the capital cities. Summer Research Institutes are held annually during January and February. An applied Mathematics Division was formed recently and this holds annual Conferences.

Publications

The publications of the Society are:

(i) THE AUSTRALIAN MATHEMATICAL SOCIETY GAZETTE (Editor: Dr. D.C. Hunt, University of New South Wales, KENSINGTON, N.S.W. 2033);

(ii) THE JOURNAL OF THE AUSTRALIAN MATHEMATICAL SOCIETY (Editors:

SERIES A: Professor J.B. Miller, Monash University,
CLAYTON, VIC. 3168;

SERIES B: Professor J.J. Mahony, FAA, University of Western Australia,
NEDLANDS, W.A. 6009);

(iii) THE BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY (Editor:
Dr. B.H. Neumann, FAA, FRS, CSIRO, P.O. Box 1965, CANBERRA,
A.C.T. 2601).

The Business Manager of the Society is Dr. E.T. Steller, University of Queensland, ST. LUCIA, QLD. 4067. Enquiries concerning the publications should be directed appropriately. A copy of the Constitution of the Society and any information other than that concerning the publications may be obtained from the Secretary.

Membership

A candidate for membership shall be proposed and recommended by not less than two members. Election shall be by Council. A candidate will be required to sign a declaration of acceptance of the obligations of membership (as set out in the Constitution) and to pay the annual subscription. Members of the Australian Mathematical Society while resident in Australasia may join the American Mathematical Society and certain other Mathematical Societies at half the normal rates. Institutions, Associations and other Organizations may become Institutional Members at a minimum annual subscription of one hundred and forty-five dollars.

Subscriptions

The annual subscription is twenty dollars with a remission of five dollars if paid by 31 March of the relevant year. This entitles a member to receive a copy of the Gazette. Members who wish to be Sustaining Members pay forty dollars. Members may join the Division of Applied Mathematics for an additional three dollars. Members who require either the Journal, Series A or the Bulletin or both pay an additional ten dollars for each. The additional cost for the Journal, Series B is two dollars and fifty cents. The Council may reduce the subscription to ten dollars in the case of under graduates and junior graduates. Members of the New Zealand and other Mathematical Societies, who have entered into an agreement with the Australian Mathematical Society may join as "reciprocating members" at half the current rates. Retired members may apply for a reduced rate of ten dollars. Application for membership should be made on the form prescribed. The initial subscription should be tendered with the application form.

Dr. D. G. Hurley
AMS Secretary
Maths Dept
University of Western Australia
NEDLANDS, WA 6011

VICTORIA UNIVERSITY OF WELLINGTON

Ph.D. Scholarship Award

Applications are invited for a Ph.D. Scholarship to support the mathematical study of spontaneous combustion. The work will involve research into the theory of nonlinear differential equations and bifurcation theory and will be motivated by practical problems of interest to Chemistry Division, D.S.I.R. The award arises from a D.S.I.R. contract to Victoria University of Wellington.

Applicants should have a good knowledge of differential equations, analysis, some computing experience and should have a good honours degree in mathematics. The successful candidate will be located in the Mathematics Department at Victoria University. Remuneration and conditions are the same as for the post-graduate scholarships, University Grants Committee Handbook 1978, p.14. Students interested in this award should contact Dr. G.C. Wake, Mathematics Department, Victoria University, Private Bag, Wellington. A firm application should be accompanied by a copy of your academic record, together with the name of a staff member of your university to whom reference can be made.

PROGRAMMABLE CALCULATORS

At the last Annual General Meeting of the N.Z. Statistical Association it was resolved that the Committee look into the feasibility of arranging some scheme for the exchange of programs for programmable calculating machines. In response the Association has decided to organise a Calculator Program Exchange Group.

Membership of the Group will initially be by contribution of programs only, and will extend for one year from date of entry. Each member will receive:

- 1) Four quarterly bulletins of program summaries.
- 2) An annual cumulative index, consisting of all program summaries so far received indexed by machine type and by keywords relating to program purpose.
- 3) Full documentation of any four of the programs from the bulletins or index, as requested by the member. Further programs may be obtained at a price of 30c each to cover postage and reproduction. Members who do not like writing cheques for 30c may pay for more programs than they immediately require and claim programs owing to them at some future time.

Anyone wishing to join should send descriptions of one or more programs to
 John Jowett
 Biometrics Section
 Ministry of Agriculture and Fisheries
 P O Box 1500
 WELLINGTON.

The description should contain:

- 1) Name and address of contributor
- 2) A short paragraph describing the purpose of the program and specifying the machine for which it is written.
- 3) A full listing of the program.
- 4) Clear instructions for its use.
- 5) A worked example to provide a check that the program has been listed and loaded correctly.

6) A brief description or reference for any non-trivial algorithm used in the program.

Items 1 - 2 will be published in the bulletins and index.

Items 3 - 6 will constitute the "full documentation" sent on application.

For your guidance in writing up programs, an example of the sort of thing required is available.

It is proposed in the future to charge an annual subscription of \$1 for the bulletins and index, and to provide full documentation on a basis of four for one or 30c each quite generally. However, because founding members will be buying a pig in a poke, the Statistical Association will subsidise the Group for a time.

The Statistical Association will accept no responsibility for the correct functioning of programs supplied under this scheme, and accepts programs for publication only on the understanding that its further publishing of them will not constitute a breach of any copyright.

HISTORY OF MATHEMATICS

The International Commission for the History of Mathematics is a commission of the Division of the History of Science of the International Union of the History and Philosophy of Science. The members of the Commission include most of the world's leading historians of mathematics - Professor Kenneth O. May was the Chairman until his death in December 1977, since when Professor Christoff J. Scriba has been the Chairman.

The Commission publishes the renowned journal *Historia Mathematica*, and it acts as a coordinating organization for work done on the history of mathematics. Anyone in New Zealand who is doing any work on the history of mathematics is invited to send an account of their work to the Commission through its local correspondent:

Mr G J Tee
 Computational Mathematics Unit
 Department of Mathematics
 University of Auckland
 Private Bag
 AUCKLAND

Auckland: Department of Mathematics.

Visitors:

Dr Edward Armour, a mathematical physicist from the University of Nottingham, is lecturing here for the year.

Dr J A John, a statistician from the University of Southampton, is lecturing for part of 1978.

Dr T G Raghaven, a topologist from Madurai (India), is lecturing for the 1st and 2nd terms.

Dr Harvey Schmidt, a specialist in group theory from Lewis and Clark College (Portland, Oregon) is lecturing for 1978 as an exchange visitor with Dr D.J. Smith.

Leave:

Dr Paul Hafner has returned from the University of Zurich.

Prof. J.A.Kalman is at Oxford University.

Mr C.C. King is on special leave for 1978.

Dr Joel Schiff has returned from UCLA and Western Washington State College (Bellingham).

Dr David J. Smith is at Lewis and Clark College, Portland, Oregon.

Junior Lecturers:

The new junior lecturers for 1978 are: Kevin Burrage, David Crawley, Pamela Moss and Sarah Euren.

Enrolment Figures:

At the close of enrolment for 1978, just over 1900 students had enrolled for at least one mathematics paper, compared with 1723 in 1977 and 1525 in 1976. Since then, the number has grown to over 2000.

Retirement:

Dr. Phillippe-Auguste Dionne retired at the end of 1977 after 7 years as a member of the Department of Mathematics at the University of Auckland, but he is continuing to give a course there for the first 2 terms of 1978. He was born at Ste-Anne-de-la-Pocatière in Quebec on March 16th 1912, and gained his B.A. from Laval University in 1932, the diploma of the Ecole Normale du Sault-en-Récollet (at Montreal) in 1936, and the Licence in Philosophy (1938) and Licence in Theology (1945) of the Université de l'Immaculée-Conception in Montreal. He is a member of the Society of Jesus and was ordained a priest in 1944. He gained an M.A. from Columbia University in 1957 while he was teaching mathematics at various colleges in Canada. Later he studied under Professor Jean Leray at the Collège de France, where he gained in 1962 the highest French degree, the Doctorat ès Sciences d'Etat. His thesis on well-posed hyperbolic equations was published in the *Journal d'Analyse Mathématique*, and he gave an invited address on that work at an International Colloquium on Partial Differential Equations at Paris in June 1962. He has published several other papers on the applications of functional analysis to hyperbolic equations. He taught mathematics at a tertiary level in France until 1970 when he was appointed a senior lecturer in Auckland.

His courses at Auckland usually consisted of a Stage 3 course in real analysis and a postgraduate course for students and staff, on topics ranging from Measure Theory to the Foundations of Classical Mechanics. He has been an active reviewer for *Mathematical Reviews* and the *Mathematical Chronicle*.

After he has completed the 2-term course which he is now giving at Auckland, he will leave for Paris. He intends to enliven his retirement by working with a group organized by Dr. Weishu Shih, which is concerned with physical applications of Fourier integrals, hyperfunctions and microfunctions.

G J T

God exists since mathematics is consistent, and the Devil exists since we cannot prove it.

A Weil.

No one has yet succeeded in inventing a philosophy at once credible and self-consistent...A philosophy which is not self-consistent cannot be wholly true, but a philosophy which is self-consistent can very well be wholly false.

Bertrand Russell.

Waikato

While both Prof. Zulauf and Mr Smith are on leave, Prof. Hosking is acting head of both Mathematics and Computer Science. During his year away, Prof. Zulauf aims to go to Helsinki for the Congress; Mr Smith is spending most of his time at Essex.

Only a few days ago, we received the resignation of Mr Good: he was on leave in India. It is too early to be certain whether his position will be advertised.

Finally, Dr J.H. Knight, CSIRO, Canberra, gave two seminars recently, on "Ground water movement under tidal influence" and "A boundary layer method for approximate solution of the nonlinear diffusion equation".

M.S.

Massey

Greg Arnold, who is due back from leave in May, has been promoted to Senior Lecturer. Donald Joyce returned from leave in December, "exhausted and yet refreshed", having visited seven universities and two research laboratories in a month during his return journey across North America. Dean Halford was awarded a Ph.D in December for his thesis on "The Conformal Group and Einstein Spaces".

The department, which has just been retitled Department of Mathematics and Statistics, now offers three undergraduate "majors": Mathematics, Statistics, and Operations Research. A new 300 Level course in Applied Probability and Operations Research has proved popular.

Recent talks in our regular seminar series include: "Boundary layer methods for the approximate solution of non-linear diffusion equations" (J.H.Knight, CSIRO), "Generalised inverse matrices" (R.M.Pringle), "Multiple and partial nonparametric analysis of sensory data" (R.H. Morton, Canberra College of Advanced Education), and "Construction Properties of Combinatorial Deltahedra" (L.R. Foulds). Two further titles in our series of Occasional Publications in Mathematics have appeared: "Some alternatives to least squares estimation in linear modelling" (J. Reynolds) and "Class number divisors for some real quadratic fields" (M.D. Hendy).

D.C.J.

Applied Maths Division, DSIR

Three appointments have been made to the AMD staff. John Maindonald from the Faculty of Science, Victoria University of Wellington will be heading our Auckland Branch at the Mt Albert Research Centre. Lindsay Packer, who has M.Sc degrees from the University of London and Oxford University, has joined the O.R. section. Jocelyn Hopkins, who has just completed her M.Sc at Auckland University, has also joined the Auckland Branch.

Mike Cox formerly of the O.R. section is now working for B.P.

Congratulations to former staff member Peter Whittle, now at the University of Cambridge, on his election as Fellow of the Royal Society.

R.B.D.

Victoria

Dr Sonja McKinlay, appointed Lecturer in Statistics last year arrived to take up her position in December 1977. She previously was Assistant Professor at Boston University. Mr Roger Littlejohn has been appointed temporary junior lecturer while he completes his Master's degree in Statistics. He leaves for A.N.U. later this year. Other postgraduate students are departing in August for Oxford (Oliver Druce - differential equations), California (Matt Visser-quantum mechanics). All four first class honours students from last year gained post-graduate study awards - in some cases more than one award was gained.

Dr Rob Goldblatt, Ms Megan Clark and Dr John Harper are on leave in England at present - in Oxford, Southampton and Cambridge respectively. They are all due back in the second half of the second term. Professor Terence Nonweiler and Dr Chris Grigson are due to go on leave in August. Chris is going to Adelaide and Terence is spending his time between U.S. and Britain.

Professor David Vere-Jones is a guest speaker at the conference on stochastic processes in Canberra in Canberra in July. He is also acting head of the Information Science Department at Victoria until May of this year. Dr Graeme Wake will be attending the week-long International Congress of Mathematics in Helsinki during the August Vacation. He is also attending the associated International Mathematics Union meeting as New Zealand's representative and expects to meet up with Dr Michael Carter from Massey in Helsinki. The following week he will attend the International Symposium on Combustion in Leeds before returning home.

Dr John Ockendon of Oxford is visiting Wellington from April-June 1978 and will be a temporary staff member of Applied Mathematics Division, D.S.I.R. He worked with Graeme Wake when the latter was on leave in Oxford. John's expertise is in nonlinear differential equations and mathematical problems in industry. He is in charge of the industrial study group centred at Oxford and will be talking on this at the Mathematics Convention in Christchurch during May. Mr Y. Ogata from Tokyo (The Institute of Statistical Mathematics) is visiting the Department until August 1978 and is working with Professor Vere-Jones on Stochastic Processes and Time-Series. Yosihiko is attending the Mathematics Convention in Christchurch. He is a high-class exponent of the Japanese game of "Go" and wants stronger competition from New Zealanders!!

Ten staff members are expected to attend the Mathematics Convention in Christchurch. Since this is to be held in the first week of the second term, the remaining staff will be busy, giving extra lectures and tutorials etc.

The new first year "Keller Plan", which was introduced this year, is underway and is shaping up well. About 100 students, with a good seventh form Mathematics background have enrolled in the course. Student reaction across the university seems to favour more Keller Plan courses.

G C W

Canterbury

Two of the principal invited speakers for the Mathematics Convention have arrived already and are giving lectures within the University. Professor D.V. Lindley is head of the Department of Statistics and Computer Science, University College, London and has an international reputation for his contributions to the foundation and development of Bayesian Statistics. He has already given a seminar on 'A problem in Forensic Science'. Professor J.E.L. Peck is head of the Department of Computer Science, University of British Columbia, and is probably best known for his work as one of the designers of the algorithmic language Algol 68. His two lecture courses are entitled 'Algol 68 and two-level grammars', and 'Program portability and BCPL'.

The new PDP11/34 - based undergraduate programming system has been commissioned. It has already improved significantly the flexibility and accessibility of resources available for undergraduate programming classes.

P J B

PROJECT "ASSIGNMENT" AT WELLINGTON POLYTECHNIC

With the advance of Internal Assessment at all levels of formal teaching, the Mathematics section at Wellington Polytechnic, assisted by an Education Department grant for the development of some aspect of innovative teaching, is producing and trying out a series of mathematical assignments to supplement the regular traditional type tests used for determining the course work mark given for a year's work in mathematics.

Each assignment is designed to take from six to eight hours work over a period of about six weeks. The ideal assignment offers the student opportunity for initiative, the use of reference material, judgement and careful presentation and sometimes for some practical work. The use of such assignments should benefit the student who, though he does not do well in examinations, has abilities which will be valuable in a work situation.

Work on the assignments started in earnest last year and five or six assignments have now been prepared for each of the levels I, II, and III of N.Z. Certificate Mathematics. The most successful of the assignments so far tried out are those based on problems that have actually been met with in industry or other practical situations. However the more "real" the assignment is and the more scope it offers for student initiative the harder is it to lay down criteria for the assessment of the work done and the more time consuming the assessment becomes.

The future success of the scheme depends on the willingness of tutors to undertake the extra work involved in using the assignments; on the careful revision of existing assignments where weaknesses become apparent and on the devising of further assignments to provide a wider choice and to provide work relevant to the interests of students working towards a variety of certificates.

Jocelyn Dobbie

QUERY

Can there be any justification for the use, in an institute of tertiary education or, for that matter, in a secondary school or even a primary school, for the use of the verb "to times" (as in "times it by five") in place of the verb "to multiply"?

J.D.

CONFERENCES 1978-79

** 1978 **

- May 15 - 19
(Christchurch) 1978 Australasian Mathematical Convention
Details from 1978 Convention Secretary, Department of Mathematics, University of Canterbury, Private Bag, Christchurch, New Zealand.
- May 18-19
(Christchurch) 14th Annual Conference of the Operational Research Society of New Zealand
Details from C.A. de Kluyver, Economics Department University of Canterbury, Private Bag, Christchurch, New Zealand.
- May 24-26
(Chicago) Eighth Annual International Symposium on Multiple-valued Logic
Details from Anthony S. Wojcik, Eight ISMVL Symposium Chairman, Department of Computer Science, Illinois Institute of Technology, Chicago, Illinois 60616, U.S.A.
- May 24-26
(Kuala Lumpur) Mathematical Symposium: The Role of Mathematics in Industry
Details from Department of Mathematics, Universiti Kebangsaan Malaysia, Peti Surat 1124, Jalan Pantai Baru, Kuala Lumpur 22-12, Malaysia.
- May 29-June 3
(Manila) Southeast Asian Conference on Mathematical Education
Details from Department of Mathematics, Ateneo de Manila University, P.O. Box 154, Manila, Philippines.
- June 5-9
(Fort Collins) Symposium on Combinatorial Mathematics and Optimal Design
Details from J.N. Srivastava Department of Statistics, Colorado State University, Fort Collins, Colorado 80523, USA.
- June 12-27
(Calgary) Canadian Mathematical Congress Annual Seminar on Global Analysis
Details from J Sniatycki Department of Mathematics and Statistics, University of Calgary T2N 1N4, Alberta, Canada.
- June 19-24
(Pittsburgh) Fifth International Symposium on Multivariate Analysis
Details from P.R. Krishnaiah, Department of Mathematics and Statistics, University of Pittsburgh, Pittsburgh, Pennsylvania 15260, USA.

- June 25-July 2
(Weimar) Eight International Congress on the Application of Mathematics in Engineering
Details from H. Matzke, President of the VIII IKM, Karl-Marx-Platz 2, 53 Weimar, German Democratic Republic.
- June 26-30
(Los Angeles) 8th U.S. National Congress of Applied Mechanics
Details from J.D. Cole, Mechanics and Structures Department, School of Engineering and Applied Science, University of California, Los Angeles, California 90024, U.S.A.
- July 3-8
(Quebec) Conference on Complex Approximation
Details from Département de Mathématiques, Faculté des Sciences et de Génie, Université Laval, Quebec, Canada G1K 7P4.
- July 6-14
(Canberra) Eight Conference on Stochastic Processes and their Applications
Details from Dr C.C. Heyde, Conference Organiser 1978, Division of Mathematics and Statistics, CSIRO, POB 1965, Canberra ACT 2601, Australia.
- July 10-18
(Williamstown) Summer Research Institute: Harmonic Analysis in Euclidean Spaces and Related Topics
Details from W.J. Leveque, American Mathematical Society, P.O. Box 6248, Providence, Rhode Island 02940, U.S.A.
- July 11-14
(Canberra) Fourth Australian Statistical Conference
Details from Dr C.C. Heyde (see previous entry)
- July 16-29
(London) Symposium on Analytic Sets, their Connections with Mathematical Logic and Applications in Functional Analysis
Details from Dr J.E. Jayne, Department of Mathematics, University College London, Gower St, London WC1E 6BT, England.
- July 17-19
(Manchester) International Conference on Markov Decision Processes
Details from Secretary and Registrar, Institute of Mathematics and its Applications, Maitland House, Warrior Square, Southend-on-Sea, Essex SS1 2JY, England.
- July 18-21
(Bangkok) Fourth Biannual Meeting of the Southeast Asian Mathematical Society
Details from Department of Mathematics, Chulalongkorn University, Henri Durant Road, Bangkok 6, Thailand.

- July 31-August 10
(Durham) Durham Symposium on Finite Simple Groups
Details from Dr M.J. Collins, Mathematical Institute,
24-29 St Giles, Oxford OX1 3LB, England.
- August 6-10
(Rio de Janeiro) International Seminar on Functional Analysis, Holomorphy
and Approximation Theory
Details from Dr S Machado, Instituto de Matematica,
Universidade Federal do Rio de Janeiro, Caixa Postal
1835, Rio de Janeiro, Brazil.
- August 14-17
(San Diego) 138th Annual Meeting of the American Statistical
Association
Details from ASA, 806 15th St, N.W., Washington DC 20005,
USA.
- August 15-23
(Helsinki) 1978 International Congress of Mathematicians
Details from International Congress of Mathematicians,
ICM 78, Department of Mathematics, University of
Helsinki, Hallituskatu 15, SF 00100 Helsinki 10,
Finland.
- August 21-25
(Leiden) Third ISI COMPSTAT Symposium on Computational Statistics
Details from COMPSTAT '78 c/- Central Reken Instituut,
University of Leiden, Wassenaarseweg 80, Leiden, The
Netherlands.
- August 28 -Sept 1
(Canberra) Eighth Australian Computer Conference
Details from ACS-8 Programme Committee, PO Box 448,
Canberra ACT2601, Australia.
- August 29-Sept 1
(Armidale) Sixth Australian Conference on Combinatorial Mathematics
Details from Prof. A.F. Horadam, Department of
Mathematics, University of New England, Armidale, NSW
2351, Australia.
- September 4-9
(France) First Colloquium on Applied Mathematics
Details from Secretariat du Comité d'Organisation du
1er Colloque AFCET-SMF, Centre de Mathématiques
Appliquées, Ecole Polytechnique, 91128 Palaiseau Cédex,
France.

- September 6-8
(Oxford) International Conference on Analysis and Optimisation of Stochastic Systems
Details from Secretary and Registrar, Institute of Mathematics and its Applications, Maitland House, Warrior Square, Southend-on-Sea, Essex SS1 2JY, England.
- September 6-8
(Mannheim) Third Symposium on Operations Research
Details from W. Oettli, III Symposium uber Operations Research, Universitat Mannheim, Schloss, D-6800 Mannheim, Federal Republic of Germany.
- September 12-13
(Liverpool) Conference on Mathematical Modelling of Turbulent Diffusion in the Environment
Details from Secretary and Registrar, Institute of Mathematics and its Applications, Maitland House, Warrior Square, Southend-on-sea, Essex SS1 2JY, England.
- December 5-8
(Wellington) Asian-South Pacific Regional Meeting in Astronomy
Details from Dr B.M. Lewis, Director, Carter Observatory, Wellington, New Zealand.
- ** 1979 **
- May 14-25
(Singapore) Workshops on Combinatorics, Graph Theory, Optimization and Mathematical Programming
Details from Department of Mathematics, Nanyang University, Jurong Road, Singapore 22.
- May 28-31
(Singapore) First Franco - Southeast Asian Mathematics Conference
Details from Department of Mathematics, Nanyang University, Jurong Road, Singapore 22.
- August 22-29
(Hannover) International Congress for Logic, Methodology and Philosophy of the Exact Sciences
Details from Sekretariat des Internationalen Kongress fur Logic, Methodologie und Philosophie der Wissenschaften, Welfengarten 1, D-3000 Hannover, Federal Republic of Germany.
- September 3-7
(Varna) Twelfth European Meeting of Statisticians
Details from Dr. B Pendov, National Committee for Mathematics, POB 373, Sofia, Bulgaria.

RECIPROCITY AGREEMENTS

Australian Mathematical Society

The terms of the agreement provide for individuals who are members of one Society to join the other for half the usual fee and thereby enjoy all the privileges of that Society, other than the right to vote. This applies, of course, provided you are not resident in the country of the second Society. Current subscriptions and prices are as follows:

- (1) Membership subscription (including the Gazette): \$15 (with a remission of \$2 for early payment)
- (2) Journal - Series A: \$10
- (3) Journal - Series B: \$2.50
- (4) Bulletin: \$10

Thus members of the NZMS may join the AMS for \$6.50 a year. They should obtain a note of authentication and an application form from our Treasurer and send both to the AMS Secretary (D. G. Hurley, Department of Mathematics, University of Western Australia, Nedlands, Western Australia 6009, Australia).

Canadian Mathematical Congress

The same terms apply as for the AMS (see above). Current subscriptions and prices are as follows:

- (1) Membership subscription (including newsletter): \$15
- (2) Canadian Journal of Mathematics: \$14
- (3) Canadian Mathematical Bulletin: \$10

Thus members of the NZMS may join for \$7.50.

Edinburgh Mathematical Society

Members of the New Zealand Mathematical Society may join the Edinburgh Mathematical Society on payment of the reciprocity member's subscription. This is £5.00 for the current session (against £7.50 for a full member). A reciprocity member receives the Proceedings of the Edinburgh Mathematical Society, but does not have voting rights. Anyone wishing to become a reciprocity member should write to the Secretary, Edinburgh Mathematical Society, James Clerk Maxwell Building, Mayfield Road, Edinburgh EH9 3JZ, Scotland.

London Mathematical Society

The same terms apply as for the AMS (see above) except that reciprocal members do have the right to an LMS vote. Current subscriptions and prices are as follows:

- (1) Membership subscription: £3.00
- (2) Journal: £6.00
- (3) Proceedings: £6.00
- (4) Bulletin: £3.00

Reciprocal members are also entitled to a discount on the Journal of Applied Probability, LMS Monographs and LMS Lecture Notes. Members of the NZMS may join the LMS for £1.50 a year. Application forms may be obtained from our secretary.

Southeast Asian Mathematical Society

The same terms apply as for the AMS (see above). The current subscription is US\$5.00, and privileges of membership include a quarterly newsletter and members' rates for conference, meetings and occasional publications. Thus NZMS members may join the SEAMS for US\$2.50. Application forms may be obtained from our Secretary.

OTHER N.Z. MATHEMATICAL PUBLICATIONSMathematical Chronicle

is published by the Mathematical Chronicle Committee, Department of Mathematics, University of Auckland, Private Bag, Auckland. The editors are Professor J.A. Kalman, Dr. D.B. Gaud, Dr. G.D. Dixit and Dr. D.M. Ryan. The subscription is \$10.00 per volume of three issues, with a reduced rate of \$5.00 for individual subscribers and a further reduction to \$4.00 for members of the N.Z. Mathematical Society. The Chronicle welcomes contributions of short research articles and mathematical notes by New Zealand mathematicians.

Mathematics Magazine

is published by the Auckland Mathematical Association, P.O. Box 6855, Auckland, 1. The annual subscription for individuals is \$5.00 and three issues are published each year. A reduced rate is available for students.

Network

is published by the Mathematics Education Department of Christchurch Teachers' College (Secondary Division), Dovedale Avenue, Ilam, Christchurch 4. It exists to help provide an exchange of ideas among all those concerned with Mathematics Education in secondary schools.

N.Z. Operational Research

is published by the Operational Research Society of N.Z., P.O. Box 904, Wellington. The editor is Dr. H. G. Daellenbach. The annual subscription for individuals is \$6.00 and two issues are published each year.

N.Z. Statistician

is published by the N.Z. Statistical Association, P.O. Box 1731, Wellington. The editor is Dr. R.B. Davies. The annual subscription for individuals is \$2.00 and two or three issues are published each year. A reduced rate is available for students.

SOMEBODY OUT THERE NOTICES US

The Editor was pleased to see proof that at least one of the supplements to our Newsletter has attracted attention overseas. An excerpt from Gordon Knight's article "Student Evaluation of Mathematics Teaching" (Published in a supplement to Newsletter Number 7) appeared in the April 1977 issue of the Canadian Mathematical Congress Notes, and the Society for Industrial and Applied Mathematics have been given permission to reprint the same article in SIAM News.

THE NEW ZEALAND MATHEMATICAL SOCIETY

Official Address: Mathematics Department,
Victoria University of Wellington,
Private Bag,
WELLINGTON, New Zealand.

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THE NEWSLETTER

This Newsletter was compiled for the Council of the New Zealand Mathematical Society by Donald Joyce, typed by Marie Tokori and Wendy Sigvertsen and printed by the Massey University Printery. The Editor is particularly grateful to the people who contributed articles and quotations, and to the Honorary Correspondents: Garry Tee (Auckland, Maths.), Cecil Segedin (Auckland, TAM), Mark Schroder (Waikato), Graeme Wake (Victoria), Robert Davies (AMD), Ian Donaldson (PEL), H. Offenberger (Wellington Polytech), Peter Bryant (Canterbury) and Gloria Olive (Otago).

Contributions are invited from any one who has anything to say of interest to the New Zealand Mathematics community. Local News items may be sent to one of the Honorary Correspondents or direct to the Editor (c/- Mathematics Department, Massey University, Palmerston North, NEW ZEALAND).