

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 197

September 1992

FORTHCOMING SOCIETY MEETINGS

Friday 16 October 1992, Burlington House
Meeting on Functional Analysis

L.J. Bunce, E.M. Christensen, A. Connes, C.M. Edwards

Friday 20 November 1992, Burlington House
Annual General Meeting
J.F.C. Kingman, P. Whittle

Friday 11 December 1992, University of Warwick
Memorial Meeting for Rolf Schwarzenberger

MATHEMATICAL WHO'S WHERE 1992

We greatly regret that the first edition of "Mathematical Who's Where - United Kingdom" published by the London Mathematical Society omitted the names of some members and other mathematicians working in departments in UK universities. We apologise unreservedly to all those whose names were omitted. A request for information for the directory was sent to departments in January of this year. As it was stated that the database for "Mathematical Who's Where" would be established by augmenting the database used for the production of the Society's electronic mail directory, the request was unfortunately misinterpreted by some departments and only the names of

those members of the department using electronic mail were returned. A new request has been sent to departments for the names of any members of the department that are omitted from the 1992 edition of "Mathematical Who's Where". The Society's database will be updated and it will be the information held at the end of this exercise that departments will be asked to update in January 1994 in preparation for the publication of the next edition of the directory.

S.M. Oakes,
Administrator
A.R. Pears,
Meetings and Membership Secretary

SPITALFIELDS DAY AT THE NEWTON INSTITUTE

There will be an LMS Spitalfields Day at the Isaac Newton Institute for Mathematical Sciences, University of Cambridge, on Friday 9th October 1992, in conjunction with the sym-

posium on "Low-dimensional topology and quantum field theory". More details will appear in the October issue of the Newsletter.

ANTONI ZYGMUND

Professor Antoni Zygmund died on 30th May 1992 at the age of 91. He was elected an ordinary member of the London Mathemati-

cal Society on 16th January 1930 and an Honorary Member on 18th May 1967.

UNIVERSITIES FUNDING COUNCIL

The following is the Mathematical Sciences Panel for the 1992 Research Assessment Exercise.

Professor D.V. Evans (Chairman), Univ. of Bristol

Professor D.G. Crighton, Univ. of Cambridge

Professor M. Cross, Univ. of Greenwich

Professor R.N. Curnow, Univ. of Reading

Professor N.J. Hitchin, Univ. of Warwick

Professor A.O. Morris, Univ. College of Wales, Aberystwyth

Professor L. Thomas, Univ. of Edinburgh

Professor D.M. Titterton, Univ. of Glasgow

Pure Mathematics adjunct

Professor S.K. Donaldson, Univ. of Oxford

Professor B.E. Johnson, Univ. of Newcastle upon Tyne

Applied Mathematics adjunct

Professor C.T.H. Baker, Univ. of Manchester

Professor E.R. Priest, Univ. of St Andrews

Professor J.R. Willis, Univ. of Bath

Statistics and Operational Research adjunct

Professor F.P. Kelly, Univ. of Cambridge

Professor A.F.M. Smith, Imperial College

Assessor

Mr R.F. Rissone, Science and Engineering Research Council

Secretary

Mrs A. Jones

INTERNATIONAL CONGRESS OF MATHEMATICIANS 1994

The next International Congress of Mathematicians will be held in Zurich, Switzerland from 3rd to 11th August 1994, under the auspices of the International Mathematical Union. The lectures will be held at the Kongresshaus of the city of Zurich and in lecture theatres at the Federal Institute of Technology (ETHZ) and at the University of Zurich. The Swiss Mathematical Society has entrusted a committee with the organization of the congress. The president of this com-

mittee is Henri Carnal, the secretary is Christian Blatter. The administration of the participants (hotel reservations, etc.) has been delegated to a professional congress organizer. The First Announcement containing further details and an application form will be distributed in July 1993. Write to the following address for further information: ICM 94, International Congress of Mathematicians, ETH Zentrum, CH-8092 Zurich, Switzerland.

DIFFERENTIAL EQUATIONS

The Fourth International Colloquium on Differential Equations will be held in Plovdiv, Bulgaria from 18th to 22nd August 1993. The Colloquium will be in two sections, Ordinary Differential Equations and Partial Differential Equations. The duration of the talks will be 20 minutes and the working languages will

be English and Russian. The deadline line for notification of attendance or submission of an abstract, by an intended speaker, is 1st January 1993. Write to the Organizing Committee, Stoyan Zlatev (Secretary), Mathematical Faculty, Plovdiv University, Tsar Assen Str.24, Plovdiv 4000, Bulgaria.

EUROPEAN WOMEN IN MATHEMATICS

The European Women in Mathematics group has been running since 1986 with the aims of encouraging women in mathematics, supporting women in mathematical research, providing a biennial conference, fostering international scientific communication among women in mathematics, and promot-

ing equal opportunity and treatment of women and men in the mathematical community. If you are interested in receiving EWM mailings please could you send your name and address to Dr. A. Chetwynd, Mathematics Department, Lancaster University, Lancaster, LA1 4YF.

HEFCE FUNDING OF RESEARCH

The UFC and the PCFC have jointly published a consultation paper entitled "The Funding of Research by the Higher Education Funding Council for England". Comments have been invited from higher educa-

tion institutions, the Research Councils and others. A response on behalf of the Society will be prepared by its Mathematics Funding Committee.

LMS COUNCIL NEWS

Some proposed amendments to the Society's Statutes 11, 13 and 39 were set out in a Resolution in the October 1991 issue of the Newsletter; this Resolution was passed *nem con* at the Annual General Meeting in November 1991, and the amendments have now been approved by the Lords of the Privy Council.

The new Statutes 11 and 13 empower the Council to make increases in the rates of subscription to be paid by Ordinary Members, and by Corporation and Institutional Members, of up to 10% annually, but make higher increases subject to the approval of the membership in General Meeting. Prior to these amendments, Council had to seek the approval of the Society in General Meeting

for changes to By-Laws II,1 and II,3 in order to raise the rates of subscription. Although such changes to the By-Laws are no longer formally necessary (provided that the figure of 10% is not exceeded), it is the intention to keep the By-Laws up-to-date, so that they record the current rates of subscription.

For example, Council has used its new power to increase the annual subscription of Corporation and Institutional Members for 1992-93 to £411 from the 1991-92 level of £395, and the change to By-Law II,3 set out in the adjacent Notice of General Meeting is being proposed in order to record the new rate.

R.Y. Sharp
Council and General Secretary

LONDON MATHEMATICAL SOCIETY

NOTICE OF GENERAL MEETING

There will be a General Meeting of the Society on Friday 16 October 1992 at 5.00 p.m. in the Meeting Room of the Geological Society, Burlington House, Piccadilly, London W1V 0NL, to consider a proposal by the Council of the Society to delete the existing By-Law II,3 and to substitute that printed below.

The Council of the Society has, in the light of the new Statute 11, increased the annual subscription of Corporation and Institutional Members for 1992-93 to £411 from the 1991-92 level of £395. The new By-Law II,3 would record the new rate.

Text of the proposed By-Law II,3

The annual subscription to the Society of Corporation and Institutional Members for the 1992-93 session shall be £411, inclusive of one volume of the **Bulletin** and two volumes of the **Journal** and of the **Proceedings**, except that those Corporation and Institutional Members who have more than one Representative shall pay an additional subscription of £13.20 for each Representative in excess of one.

R.Y. Sharp
Council and General Secretary

RIMS, KYOTO UNIVERSITY

The following conferences are being held at the Research Institute for Mathematical Sciences, Kyoto University, Japan, up until November 1992.

Mathematical Topics in Biology	12-14 Oct	Masayasu Mimura	Hiroshima University
Interface and Layer Dynamics	15-17 Oct	Takao Ohta	Ochanomizu University
General and Geometric Topology and Related Problems	22-24 Oct	Takao Hōshina	Tsukuba University
Mathematical Analysis of Phenomena in Fluid and Plasma Dynamics	22-24 Oct	Seiji Ukai	Tokyo Institute of Technology
Holomorphic Mappings and Diophantine Geometry	26-30 Oct	Junjiro Noguchi	Tokyo Institute of Technology
Mathematical Methods for Wave Phenomena in Fluids and Their Application	4-6 Nov	Masayuki Oikawa	Kyushu University
Fundamental Technologies in Numerical Computation	4-6 Nov	Masao Iri	Tokyo University

ROYAL SOCIETY TRAVEL GRANTS

Royal Society travel grants are awarded for attendance at international conferences being held overseas, or short scientific visits of less than thirteen days. For the USA only, applications can also be considered for certain longer term research visits, but awards if offered, will only cover a small proportion of living expenses for a long term visit. The awards are designed to assist with international fares, with perhaps a contribution towards essential internal travel costs and subsistence expenses. Assistance is not given towards the payment of registration fees or incidental expenses. Applications can be considered from non-Government scientists, of Ph.D. status, and who are permanently resident in the UK. The closing dates for submission of applications are 1 March, 1 June, 1 October and 1 December with results usually becoming available approximately eight weeks after. The demand for grants is considerable, and it is only

possible for a proportion of applications to be supported.

Intending applicants should note:

- (a) that other schemes are available at the Royal Society to assist with longer term research visits to most overseas countries with the exception of the USA. When contacting the Society the enquirer should indicate the country or country for which information on Study Visit Fellowship schemes is required.
- (b) for certain major international congresses (e.g. the International Congress of Mathematicians) separate funding arrangements usually apply and a special closing date introduced. It is helpful therefore, if when requesting an application form, the title of the meeting is provided.

Further information and applications forms can be obtained from: Miss B.M. de Vere, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG. Tel: 071- 930 2170.

EDINBURGH MATHEMATICAL SOCIETY

Meetings of the Edinburgh Mathematical Society for the 1992-93 session are: 23rd October (Edinburgh) Annual General Meeting, Dr W.B.R. Lickorish; 20th November (Strathclyde) Professor J.F. Toland; 11th December (Edinburgh) Dr S.J. Pride; 15th January (Heriot-Watt) Dr S.R. Bullett; 12th February (Edinburgh) Dr T.J. Ransford; 12th

March (Stirling) Professor D.M. Titterton; 7th May (Aberdeen) Professor A.J. Macintyre; 29th May (St Andrews) Professor I.S. Duff.

Further information may be obtained from the Honorary Secretary, Edinburgh Mathematical Society, Department of Mathematics, University of Edinburgh, Mayfield Road, Edinburgh EH9 3JZ, telephone 031 650 5060.

P.E. Kloeden, E. Platen

Numerical Solution of Stochastic Differential Equations

1992. XV, 632 pp. 85 figs. (Applications of Mathematics, Vol. 23) Hardcover DM 118,- ISBN 3-540-54062-8

The numerical analysis of stochastic differential equations differs significantly from that of ordinary differential equations due to the peculiarities of stochastic calculus. This book provides an introduction to stochastic calculus and stochastic differential equations, in both theory and applications, emphasizing the numerical methods needed to solve such equations.

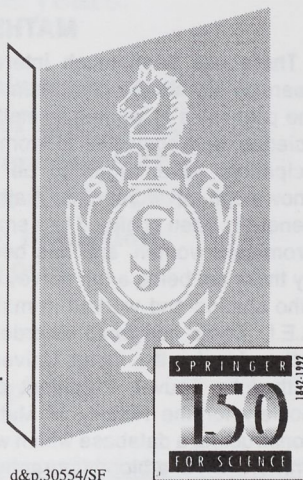
It assumes of the reader an undergraduate background in mathematical methods typical of engineers and physicists, though many chapters begin with a descriptive summary, accessible to others who only require numerical recipes. To help the reader to develop an intuitive understanding of the underlying mathematics and handon numerical skills, exercises and over 100 PC-Exercises are included.

The stochastic Taylor expansion provides discrete time numerical methods for stochastic differential equations. The book presents many new results on higher-order methods for strong sample path approximations and for weak functional approximations, including implicit, predictor-corrector, extrapolation and variance-reduction methods. Besides serving as a basic text on such methods, the book offers the reader ready access to a large number of potential resarch problems in a field that is just beginning to expand rapidly and is widely applicable.

Prices are subject to change without notice.

Springer-Verlag

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d&p.30554/SF

THEORETICAL MECHANICS OF COMBUSTION

The description of combustion processes, including chemical and fluid nonlinearities, provides a varied pool of mathematical problems. In turn, the study (and approximate solution) of some of these is helping to generate useful insight into the complex range of phenomena associated with burning. With partial support from the London Mathematical Society, the 294th European Mechanics Colloquium will highlight this interaction under the title "Theoretical Mechanics of Combustion" involving presentations by about forty active researchers from both Eastern and Western Europe and further afield. The meeting will be held at

the University of Bristol from 1st to 4th September 1992. Speakers will include, amongst others, G. Barenblatt, A. Liñán, V. Babkin, G. Sivashinsky, G. Joulin, B. Matkowsky, J. Clarke, J. Lee, R. Klein, A. Lacy, M. Torrisi, S. Frolov, V. Berman, A. Borissov and G. Dixon-Lewis. As well as theoretical studies, the programme will include the presentation of some challenging experimental findings. For further details contact Bill Dold or Oliver Kerr, School of Mathematics, University of Bristol, Bristol BS81TW, e-mail: euromech294@bristol.uk.ac, telephone: 0272-303030.

EUROPEAN MATHEMATICS 1848-1939

The British Society for the History of Mathematics is holding its annual residential conference at Gonville and Caius College, Cambridge, from Friday 11th to Sunday 13th September 1992. The topic this year is European Mathematics 1848-1939. Speakers include Sir Herman Bondi, FRS (Cambridge) on the evolution of cosmological thinking, June Collins (Milton Keynes) on competitions and congresses in late 19th century Europe, Sergei Demidov (Moscow) on mathematics in Russia, Fulvia Furinghetti (Genoa) on Italian mathematics, Hélène Gispert (Paris) on French mathematics, Ivor Grattan-Guinness (Middlesex) on British mathematics, Jeremy Gray (Milton Keynes) on European geometry,

Daniel Isaacson (Oxford) on mathematical logic, Detlef Laugwitz (Darmstadt) on theories and real numbers, Lubos Novy (Prague) on mathematics and society in Eastern Europe, Eduardo Ortiz (Imperial College) on mathematics in Spain, Luis Saraiva (Lisbon) on mathematics in Portugal, and Hourya Sinaceur (Paris) on French and German algebra. Further details from Dr Roger Bray, Royal Institution, 21 Albermarle Street, London W1X 4BS. Telephone 071-409-2992, or from Dr Steve Russ on e-mail: sbr@uk.ac.warwick.cs. The conference is being supported by the London Mathematical Society.

MATHEMATICALLY-MINDED WOMEN

There has been much interest in recent years in the history of women. In particular, the past roles of women in mathematics and science, and obstacles to women's full participation, have begun to be studied. The knowledge of women in mathematics has generally been confined to a small number of prominent women, and has been hampered by there not being a full survey of the women who studied and worked in mathematics. Dr A.E.L. Davis has been awarded a research fellowship by the Open University to work with John Fauvel, President of the British Society for the History of Mathematics, on constructing a database which will lead to the preparation of a biobibliography of women in British mathematics. The aim is to gain as

much knowledge as possible of women who studied mathematics, in particular those who went on to work in a mathematically-related field (not only as teachers), and to list all publications by women that would have required some mathematical background or training. In the first instance they are concentrating on the period 1800 to 1950. Furtherance of this project by drawing attention to British mathematically-minded women in the period 1800 to 1950 would be appreciated. The information, which will be acknowledged, should be sent to Dr A.E.L. Davis, Faculty of Mathematics, The Open University, Walton Hall, Milton Keynes MK7 6AA, telephone 071-584 7856.



UNIVERSITY OF ABERDEEN

Aberdeen University is set within easy reach of some of Britain's most attractive sea coast, mountains and agricultural country and is also at the hub of a busy commercial centre which benefits from excellent air, rail and road links.

Lectureship in Mathematics

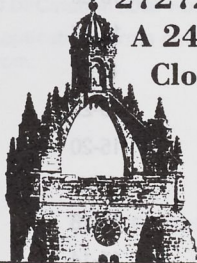
£12,860 – £15,688 p.a.
(pay award pending)

The post involves teaching in the general area of physical applied mathematics. Candidates with research interests in mathematical relativity theory or differential geometry are preferred. The post will be tenable for three years.

Application forms and further particulars are available from: Personnel Services, University of Aberdeen, Regent Walk, Aberdeen AB9 1FX, telephone 0224 272727 quoting reference number FMA 019A.

A 24 hour answering service is in operation.

Closing date: 29th September 1992



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FACING A CRISIS IN MATHEMATICS

The following is the text of a letter from Professor Ronald Brown to the Editor of The Independent which was published on the 27th May.

"The article by Nicholas Schoon on climate ("Pushed or pulled, warmed or cooled", 25th May) was interesting and well written. The only emphasis that I would object to is that it completely plays down the role of mathematics in the achievements of forecasting and indeed of modelling of all kinds.

The role of computers is important, but they are in effect glorified calculating machines. They do what the mathematics tells them to do, fortunately doing it extremely fast so that a vast range of data and mathematical equations can be handled.

It is in mathematics that the real conceptual and technical advances are made, and which lay the basis of the means of calculation of the next decades or century.

It is important that this be said because, without a general knowledge of the role of mathematics, the brightest and most creative

students may not think of entering the subject, and the Government will not imagine that there is any need to be concerned about the situation in the subject in the universities.

For a number of reasons, the situation in mathematics departments in universities is moving to a crisis. Already, mathematics departments are funded per student at less than the humanities, despite mathematics' increasing dependence on computer usage and application. Indeed, it was mathematicians and logicians who, in the UK, invented the computer in the first place.

So please, when there is a mathematical basis of an application important to all our lives, may a clear statement of this mathematical basis be given. It is simply not generally realised that a proper basis of mathematical skills in this country may be a matter of survival for the country.

Government itself has given no indication that it has any intention of ensuring the survival of mathematics."

PRIZES AWARDED BY THE CITY OF PARIS

On the occasion of the first European Congress of Mathematics, the City of Paris awarded ten prizes to young mathematicians in order to recognize their exceptional talents and to encourage them in their research. They were selected by an international Prize Committee chaired by Max Karoubi, Professor at the University of Paris

7. The prizes were awarded to Richard Borcherds (United Kingdom), Jens Franke (Germany), Alexander Goncharov (Russia), Maxim Kontsevich (Russia), François Labourie (France), Tomasz Luczak (Poland), Stefan Müller (Germany), Vladimir Sverak (Czechoslovakia), Gabor Tardos (Hungary) and Claire Voisin (France).

JOURNAL BACKLOG 1992

	No. of Issues	No. of pages	Backlog	Estimate (months)
Math. Proc. Camb	6	1200	160	7-14
Edinburgh Math Society	3	490	200	15-20
Glasgow Math Journal	3	384	84	13-17
L.M.S. Bulletin	6	1200	180	8-14
Journal	6	1152	800	15-20
Proceedings	6	1344	500	15-20
Mathematika	2	400	100	6-18
Oxford Q.J.M.	4	512	320	12-18
R.S. Edinburgh Proc.A.	6	1152	120	11-14

NATIONAL UNIVERSITY OF SINGAPORE

FACULTY OF SCIENCE



Applications are invited for Faculty positions/appointments in one of the following disciplines from candidates who must possess a relevant PhD degree. Preference will be given to those who are able to teach in more than one of the areas listed under the discipline they are applying to and with proven ability in research.

MATHEMATICS

Pure Mathematics
Applied Mathematics
Operations Research
Statistics

COMPUTATIONAL SCIENCE PROGRAMME

Computational Mathematics - Applicants should specialize in either geometric modelling or statistical computing. Experience with UNIX graphics workstations is essential.

Besides appointments on normal 3-year contracts, visiting appointments for one or two years will also be considered.

Gross annual emoluments range as follows:

Lecturer	S\$50,390 - 64,200
Senior Lecturer	S\$58,680 - 100,310
Associate Professor	S\$88,650 - 122,870
(STG£1.00 = S\$3.05 approximately)	

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered.

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of S\$1,000 or S\$2,000, subsidised housing at nominal rentals ranging from S\$100 to S\$216 p.m., education allowance for up to three children subject to a maximum of S\$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in a calendar year.

There are eight faculties in the National University of Singapore with a current student enrolment of some 18,000. All departments are well-equipped with a wide range of facilities for teaching and research.

All academic staff have access to the following computer and telecommunication resources: an individual microcomputer, an IBM 3090 mainframe, an NEC SX supercomputer, on-line library catalogue, all networked through optical fibre based FDDI technology. International contact is maintained through BITNET and INTERNET. In addition, the Computational Science Laboratory is equipped with a SUN parallel processing and scientific visualization platform and two clusters of DECstation 5000 workstations.

Application forms and further information on terms and conditions of service may be obtained from:

The Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 0511

Enquiries may also be sent through BITNET to PERPL@NUS3090,
or through Telefax: (65) 7783948.

**JOINT MEETING OF THE AMERICAN AND
CAMBRIDGE, 29th J**



Sam Rankin, Elizabeth Johnston, Buz Jaco



Sally and Susan



Arlene Baxter, Paul Halmos, Katalin Bencsath



**The LMS President, S
Speaking at the o**



**The AMS President
Professor Rorabaugh**

IN AND LONDON MATHEMATICAL SOCIETIES

9th JUNE - 1st JULY 1992



de, Sir John Kingman,
th conference dinner



Peter Neumann, Jane Kister, John Ball



Sident-Elect,
oraham, responds



Sir John and Sir Peter



Alan Pears, Professor & Mrs A. Frölich

THE SOCIETY OF FRIENDS OF OBERWOLFACH

The Mathematical Research Institute at Oberwolfach is formally managed and operated by the Society for Mathematical Research (die Gesellschaft für Mathematische Forschung). The Land Baden-Württemberg is committed to continued full financial support for the scientific meetings at Oberwolfach. However, in the present difficult financial climate in Germany, some additional financial flexibility would be very helpful in efforts to maintain the traditional friendly atmosphere at the meetings at Oberwolfach.

In the light of this, the Society for Mathematical Research has initiated the foundation of the Society of Friends of Oberwolfach (Verein zur Förderung des Mathematischen Forschungsinstituts Oberwolfach). This new society was founded on 15 February 1992; its Officers are R. Remmert (Chairman), H. Kraft (Secretary) and O.H. Kegel (Treasurer), and its main aim is to enhance the financial flexi-

bility available for the management of the Oberwolfach Institute.

The list of institutional members of the Society of Friends of Oberwolfach now includes the London Mathematical Society, the Société Mathématique de France, the Deutsche Mathematiker-Vereinigung, the Wiskundig Genootschap of the Netherlands and the European Mathematical Society.

Individuals are invited to join this new Society of Friends. The annual membership subscription has been fixed by the founding members at DM100, but any larger contribution would, of course, be very welcome. Payment can be made by cheque drawn in German Marks, Pounds Sterling or US Dollars. If you would like to join, please complete a copy of the form below and send it with your cheque to Professor Kegel at the address shown. Confirmation of your membership and receipt for your subscription will be sent as soon as possible.

To: Professor Dr O.H. Kegel, Society of Friends of Oberwolfach, Mathematisches Institut, Universität Freiburg, Albertstrasse 23b, D-7800 FREIBURG i. Br., Germany.

Name (block letters)

Address

.....

.....

I wish to become a member of the Society of Friends of Oberwolfach. I wish to pay my first annual subscription

- ☐ with the enclosed cheque drawn in German Marks and made out to 'Verein zur Förderung des Mathematischen Forschungsinstituts Oberwolfach' for DM
- ☐ with the enclosed cheque drawn in Pounds Sterling and made out to 'O.H. Kegel' for £
- ☐ with the enclosed cheque drawn in US Dollars and made out to 'O.H. Kegel' for \$

Signature Date

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Publication delay is about one year, and often shorter; \TeX files are welcome.

Frequency : *four times yearly*

Annual Subscription Rates 1992 (vol. 42)
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} France : 950 FF
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NUMBER THEORETIC AND ALGEBRAIC METHODS IN COMPUTER SCIENCE

An international conference will be held at the International Centre of Scientific and Technical Information, Moscow, from 29th June to 2nd July 1993. The conference committee comprises of H.G. Zimmer, Chairman (Germany), G. Cohen (France), S.D. Cohen (U.K.), J. von zur Gathen (Canada), D. Grigorev (Russia), M. Kaminski (Hong Kong), G.L. Mullen (U.S.A.), H. Niederreiter (Austria), A.M. Odlyzko (U.S.A.), M. Pohst (Germany), C. Pomerance (U.S.A.), A.J. van der Poorten (Australia), C.P. Schnorr (Germany), I. Shparlinski (Russia), S. Vladuts (Russia). Topics: Factoring and primality

testing of integers; Computational algebraic number theory; Number-theoretical methods in computing; Irreducible, primitive, permutation and other special polynomials; Recurring sequences and finite automata; Algebraic methods in complexity theory; Algebraic coding theory; Cryptography. A more detailed notice can be obtained from Dr S.D. Cohen, Department of Mathematics, University of Glasgow, Glasgow G12 8QW, e-mail: maths@uk.ac.gla.vme, and general information from Igor Shparlinski, e-mail: shpar@su.icsti.plb.

VISIT OF PROFESSOR N.C. PHILLIPS

Professor N. Christopher Phillips (University of Oregon) will be visiting from 1st to 8th September the Department of Mathematics and Statistics, University of Newcastle upon Tyne and from 9th to 12th September the School of Mathematics, University of Leeds. He will give seminars (to which all are welcome) on "Exponential rank for operator

algebras" in Newcastle on 7th September, 3.00 pm in Room M421 and in Leeds on 10th September, 3.30 pm in Room G. For further information, contact J.R. Ringrose (Newcastle) or H.G. Dales (Leeds). Professor Phillip's visit has been made possible by a Scheme 2 travel grant from the London Mathematical Society.

THE UNIVERSITY OF SUSSEX

LECTURESHIP IN MATHEMATICS

Applications are invited for a permanent Lectureship in Mathematics from January or October 1993 or such date as can be agreed. The appointee is expected to have research interests in the general area of Algebra/Topology/Geometry, and interact with existing faculty in these fields, but outstanding candidates, with research interests in the areas of Analysis, Statistics or Applied Mathematics already represented at Sussex should also apply.

It is intended to make the appointment on the Lecturer A scale (£12860 - £17827, under review). Further particulars and application forms may be obtained from Paula Boyle, Personnel Office, Sussex House, University of Sussex, Falmer, Brighton BN1 9RH, Tel (0273) 678202. Completed forms should be returned by **23 October 1992**.

An equal opportunity employer.



**MASSEY
UNIVERSITY**

PROFESSOR OF PURE MATHEMATICS

**Department of Mathematics
School of Mathematical and Information Sciences**

Applications are invited for a newly-established Chair in Pure Mathematics within the Department of Mathematics. The Department is one of four in the School of Mathematical and Information Sciences which comprises the Departments of Mathematics, Computer Science, Information Systems and Statistics. This Chair is designed to provide leadership in research and teaching in the more theoretical branches of mathematics. The other established Chair in Mathematics is held by Professor Graeme C Wake who is also currently Head of Department.

The appointee will be expected to provide direction within the Department, University, and in the wider community. Applicants should be distinguished in research in one or more fields of Pure Mathematics and have proven ability in teaching. The appointee will be expected to take a full part in teaching, research and administration and may be expected to serve a term as Head of Department. It is envisaged that the appointee would take up the Chair in 1993.

The Department of Mathematics offers a full undergraduate programme in mathematics including service teaching. Most undergraduate courses are taught both to internal students and by correspondence to extramural students throughout New Zealand and overseas. The graduate study programmes include masterate and PhD thesis supervision - currently for fifteen students.

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

Reference number LMSN 54/92 must be quoted.

Closing date: 31 October 1992.

Further details of the above position together with Conditions of Appointment are obtainable from Mrs V B Bretherton, Personnel Section, to whom applications, including a full curriculum vitae, and the names, addresses and fax numbers of three referees should be sent before the closing date specified.

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THE UNIVERSITY OF AUCKLAND New Zealand

CHAIR IN PURE MATHEMATICS Department of Mathematics and Statistics (Vacancy UAC.197)

Applications are invited for a Chair of Pure Mathematics. The successful applicant will have an outstanding academic and research background in some branch of Pure Mathematics with personal qualities and experience which will enable her/him to contribute significantly to the continuing development of Pure Mathematics at Auckland both in research and teaching. This position is one of four established Chairs in the Department of Mathematics and Statistics, two being in Pure Mathematics and one in each of Applied & Computational Mathematics and Statistics. Three other staff hold Personal Chairs. The Department has research strengths in a number of areas of Pure Mathematics, including logic, group theory, discrete mathematics, finite geometry, functional analysis, summability theory, complex analysis, quasiconformal analysis, topology and differential equations. The Department of Mathematics and Statistics at the University of Auckland is the largest Department of the largest University in New Zealand. It is in the process of boosting its graduate student enrolments. The Department has an undergraduate computing laboratory currently being enlarged and has a collection of Macintosh microcomputers and Sun workstations. The Pure Mathematics collection of periodicals in the University Library is the best in the country and includes a number of journals obtained by exchange with the New Zealand Journal of Mathematics (formerly known as the Mathematical Chronicle), produced locally in collaboration with the New Zealand Mathematical Society.

Commencing salary will be established within the range NZ\$80,080 - NZ\$99,840 per annum.

Further information, Conditions of Appointment and Method of Application are available from Appointments (40900), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF; or from the Assistant Registrar (Academic Appointments), University of Auckland, Private Bag 92019, Auckland, New Zealand (tel. (64 9) 373 7999; fax (64 9) 373 7454). Three copies of applications should be forwarded to reach the Registrar, University of Auckland by **20 November 1992**.

Please quote Vacancy Number UAC.197 in all correspondence.

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AUSTRALIAN APPLIED MATHEMATICS CONFERENCE

The 29th Australian Applied Mathematics Conference will be held from 7th to 11th February 1993 at Höchstens, in Hahndorf, South Australia. It is an established annual gathering of applied mathematicians, scientists and engineers with wide-ranging interests and problem-solving skills. It provides an interactive forum for presentation of results and discussions on applied problems derived in many scientific fields and amenable to quantitative description and solution. Being the summer meeting of the Australian Mathematical Society it has traditionally maintained an informal atmosphere. As usual, graduate students are especially encouraged to attend and participate. The conference will attempt

to reflect the wide spread of interests of delegates. Speakers from identifiable areas will be grouped together in special-interest sessions. Invited Speakers are: Professor Jerzy Filar (University of South Australia, SA), Professor Robert May (Oxford University), Professor Bill Moran (Flinders University, S.A.) Professor C.J. van Duijn (Delft University, Netherlands), Dr Boudewijn Haverkort (University of Twente, Netherlands) and Professor K.R. Sreenivasan (Yale University, U.S.A.). For further information write to the Conference Secretary, 29AMC, Department of Applied Mathematics, University of Adelaide, GPO Box 498, Adelaide, South Australia 5001, e-mail: amc93@maths.adelaide.edu.au.

WORKSHOP ON RANDOMNESS AND COMPUTATION

A workshop on Randomness and Computation will be held in Edinburgh during the week 26th to 30th July 1993 under the auspices of the International Centre for Mathematical Sciences. The Scientific Committee for the workshop is Persi Diaconis (Harvard), Mark Jerrum (Edinburgh), and Alister Sinclair (Edinburgh). In broad terms the workshop is intended to cover all aspects of the *quantitative* analysis of stochastic systems. Topics will include randomised algorithms (rigorous results on Monte Carlo methods and stochastic optimisation techniques), and bounds on rates of convergence

to equilibrium of stochastic processes. Invited speakers are expected to include David Aldous (Berkeley), Noga Alon (Tel Aviv), Persi Diaconis, Peter Sarnak (Princeton), and Avi Wigderson (Jerusalem); others will be added to the list in due course.

For inclusion in the mailing list for the workshop, please send e-mail to rand_comp@uk.ac.ed.dcs or write to "Randomness and Computation", Department of Computer Science, University of Edinburgh, James Clerk Maxwell Building, The King's Buildings, Edinburgh EH9 3JZ, UK.

ALGEBRAIC GRAPH THEORY, ICMS 1993

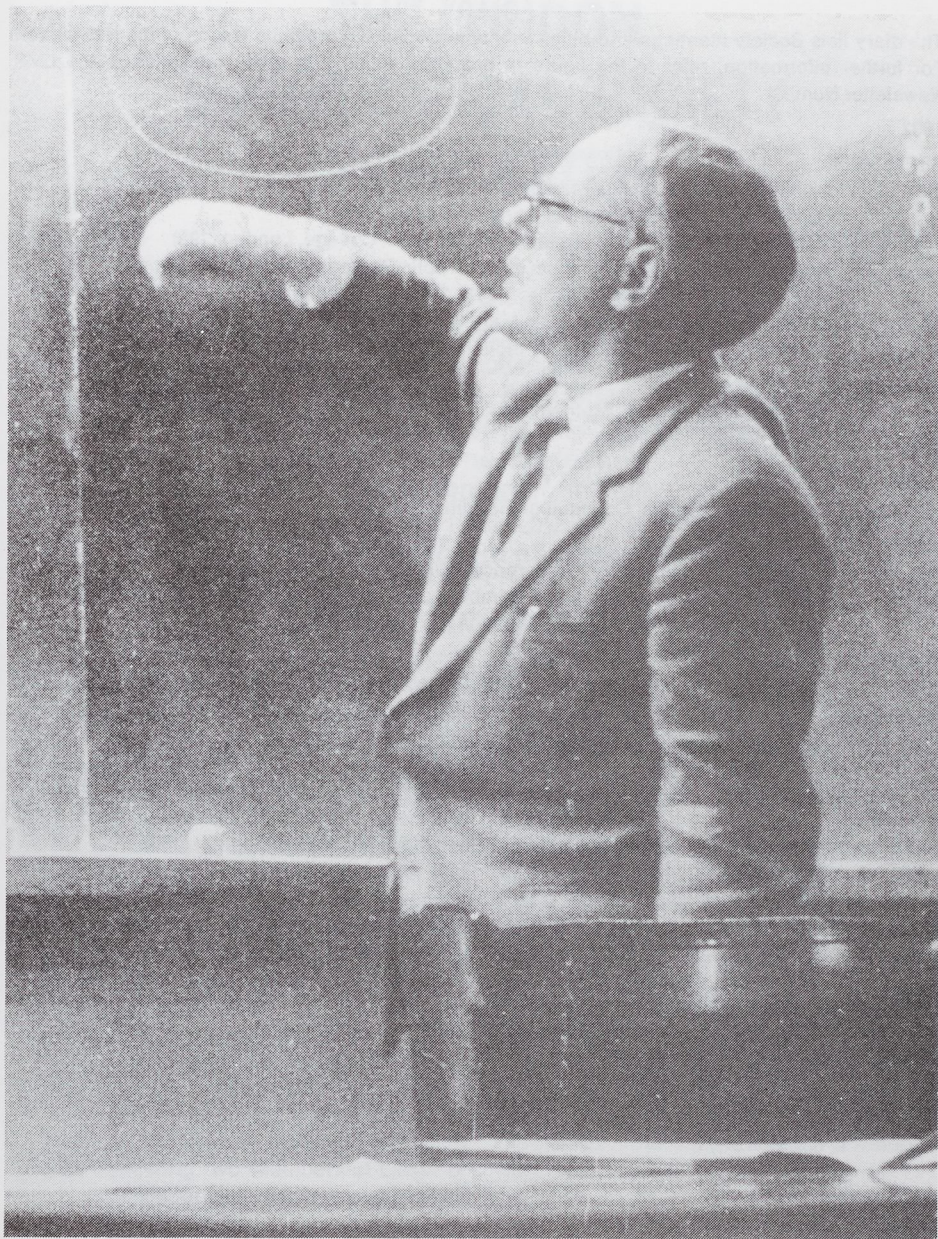
A workshop on Algebraic Graph Theory will be held in Edinburgh from 12th to 16th July 1993 under the auspices of the International Centre for Mathematical Sciences. Topics will include the Laplacian spectrum and star partitions. Invited speakers are expected to include N L Biggs (London School of Economics), R A Brualdi (Madison, Wisconsin)

and R Merris (Hayward, California). The organisers are D Cvetković (Belgrade) and P Rowlinson (Stirling). For inclusion on the mailing list, contact pr1@uk.ac.stirling.forth or write to Dr P. Rowlinson, Department of Mathematics and Statistics, University of Stirling, Scotland FK9 4LA.

ROYAL SOCIETY MEDALS

The Royal Society has awarded the Rumford Medal to Professor H.N.V. Temperley, Emeritus Professor of Applied Mathematics in the University of Wales, in recognition of his wide-ranging and imaginative contributions to applied mathematics and statistical physics, especially in the physical properties of liquids and the development of the Tem-

perley-Lieb algebra. Her Majesty The Queen has been pleased to approve the recommendation of the Royal Society for the award of a Royal Medal to Professor S.K. Donaldson, FRS, Wallis Professor of Mathematics in the University of Oxford for distinguished work which has revolutionized the understanding of four-dimensional geometry.



Graham Higman (born 1917) was educated in Plymouth and at Balliol Oxford and spent the war working in the Meteorological Office. He was then a lecturer at Manchester University, 1946-55, a Reader at Oxford, 1955-60, and finally Waynflete Professor there from 1960 until his retirement in 1984. He was elected to Fellowship of the Royal Society in 1958 and was awarded their Sylvester Medal in 1979. The London Mathematical Society awarded him the Berwick Prize in 1962, the De Morgan Medal in 1974 and he was the Society's 52nd President, from 1965 to 1967.

DIARY

The diary lists Society meetings and other events publicised in previous issues of the Newsletter. For further information, refer to the figure in brackets, which is a cross reference to the LMS Newsletter Number.

1992

SEPTEMBER

- 3-4 Irish Mathematical Society Meeting, Waterford, Ireland (193)
- 4-9 Homotopy Theory Conference, Gargnano, Italy (191)
- 14-18 Physical Interpretations of Relativity II, Imperial College, London (195)
- 14-19 Analytic and Geometric Aspects of Hyperbolic Geometry Instructional Conference, Warwick University (196)
- 16-17 British Topology Meeting, Queen Mary & Westfield College, London (196)
- 30-10 Oct Studies in Computer Algebra for Industry, Bath (192)

OCTOBER

- 24 History of Recreational Mathematics, South Bank Polytechnic, London (196)

1993

MARCH

- 29-1 Apr British Mathematical Colloquium, Reading

JULY

- 5-9 14th British Combinatorial Conference, Keele (188)
- 12-16 Combinatorial Mathematics and Combinatorial Computing Conference, Adelaide, Australia (189)

AUGUST

- 17-20 The Mathematical Heritage of Sir William Rowan Hamilton, Dublin, Ireland (193)

SEPTEMBER

- 6-9 Bubble Dynamics and Interface Phenomena Conference, Birmingham (188)

1994

AUGUST

- 3-11 International Congress of Mathematicians 1994, Zurich, Switzerland (189)

The Newsletter is published monthly except in August. Items and advertisements for inclusion in the Newsletter should be sent to the Editor, Susan Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL, to arrive before the first day of the month prior to publication. Telephone 071- 437 5377, Fax 071-439 4629, E-mail lms@uk.ac.kcl.cc.oak.