THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 212 **January 1994**

FORTHCOMING SOCIETY MEETINGS

Friday 21 January 1994 Burlington House
L. Lovász, C. Thomassen

Friday 18 February 1994, Newcastle
D.J.H Garling, S.C. Power

Friday 18 March 1994, Burlington House

Friday - Saturday, 13-14 May 1994, Leeds
Ring Theory and Representation Theory

Friday 17 June 1994, Burlington House

COUNCIL DIARY

Council met on Friday 19 November 1993. This Newsletter contains several items from that meeting, including a letter sent by the LMS to William Waldegrave MP, Chancellor of the Duchy of Lancaster, on the White Paper on Science and Technology.

Our discussion of the White Paper was by no means unanimous, though we were all concerned about the threat that it poses to the number of Mathematics research students, and to the new four-year undergraduate degree courses which many departments are planning. An urgent programme of action was agreed. The LMS will write very soon to all departments to encourage them to go ahead with their degree plans in spite of the political uncertainties.

A couple of years ago the LMS set up a Mathematics Funding Committee. This committee sends out questionnaires each year on matters such as service teaching and expenditure on periodicals - to mention two topics of current concern. We believe we are pioneers among learned societies in keeping an up-to-date record of this kind of information, which can be extremely useful for lobbying and campaigning on behalf of mathematics. But we were ashamed to find that several departments represented on Council had failed to respond to the 1993 questionnaire!

The Treasurer told us that the market value of the LMS's investments is up by more than a million pounds over the last year, though falling interest rates mean that our investment income has actually dropped a little. We set up a Building and Development Reserve Fund, against the day when the LMS may need to open up new premises.

We agreed to give enthusiastic support to the bid by Sussex University to host the European Congress of Mathematics in the year 2000. We also agreed to donate a thousand pounds to support the journal 'Radovi Matematicki' of Sarajevo University, which has continued to publish in spite of all adversities. The LMS cannot say yes to all the appeals which reach it, but we felt that this appeal was quite exceptional.

The first of the new LMS-SERC Short Courses for research students, held at Lancaster in September, seemed to us a great success. We agreed plans to hold more of these, up to two or three a year (normally to include one pure and one applied).

Wilfrid Hodges

REPORT OF THE TREASURER TO THE ANNUAL GENERAL MEETING 1993

The Society's financial year runs from 1 September until 31 August. The audited accounts show that the General Fund has grown from £3,333k to £3,991k. On the recommendation of our auditors, the Printing and Publication Reserve Fund has been increased by £100k.

Over the last financial year we have increased our investments on the stock-market by a net £612k. Since there was a high probability that interest rates would fall, substantial purchases of long-dated Index Linked Government Stock were made. This proved to be a successful strategy. The market value of our investments, calculated on 31 August, has grown from £1,474k to £2,610k. This is an increase of £1,136k.

This is good news but it would be a mistake to be too euphoric. Our investment income has fallen by £59k, mainly because of falling interest rates. Also, although the British economy appears to be slowly moving out of recession, progress is sluggish.

The Society gives, annually, £10k to the Isaac Newton Institute in Cambridge and £5k to the International Centre for Mathematical Sciences in Edinburgh. These sums are to be used to help British based mathematicians to participate in the work of these institutes. The expenditure of the Conference and Programme Committee on supporting conferences, meetings and other mathematical activities doubled, from £24,661 to £49,869. This does not include expenditure on Society meetings which increased from £5,982 to £8,173. The budget of this committee will be £83k in this financial year. Of this total, £20k is intended for supporting visits by mathematicians between the former Soviet Union and this country and up to £13k for Society meetings.

After putting forward an application to the EC, in partnership with the Royal Society, 35,000 ECU has been allocated to the Society to send British mathematicians to the Euler Institute in St. Petersburg.

The membership of the Society has increased to 2,108. Of this total, 1,403 Ordinary Members pay the normal subscription and 531 Reciprocity Members, pay a reduced subscription, 126 Members no longer pay a subscription because they have either attained the age of 65 and paid annual subscriptions for not less than 30 years or have paid for not less than 35 years. In addition, we have 26 Honorary Members and 21 Life Members.

J.D.M. Wright
Honorary Treasurer

THE RESTRICTED BURNISIDE PROBLEM
By Michael Vaughan-Lee

The first edition of this book was devoted to a clear account of the techniques being developed to attack what was then the famous Restricted Burnside Problem. It is no longer an open problem and the present edition brings the story up to date. Dr Vaughan-Lee presents some of the new developments, including a simplified version of Zel'manov's remarkable proof.

This book has recently been published as part of the London Mathematical Society Monographs (New Series 8) and is available from Oxford University Press, FREEPOST, NH 5051 Corby, Northants NN18 9ES. The cost to LMS members is at the 25% discounted price of £37.50 (full price £50.00).

HARMONIC ANALYSIS AND PARTIAL DIFFERENTIAL EQUATIONS

The first workshop, originally scheduled for 29 May - 4 June, as mentioned in the November Newsletter, has been rescheduled for 5 - 11 June. The programme is also being supported by the Centre for Mathematical Analysis & its Applications (CMAIA) of the University of Sussex.

LONDON MATHEMATICAL SOCIETY

General and Ordinary Meeting

FRIDAY 21 JANUARY 1994 at 3.30

C. Thomassen
(The Technical University of Denmark)
will speak at 3.35 on

Colouring maps on surfaces

L. Lovász (Yale University)
will speak at 5.00 on

Combinatorics, Computing, and some Topology

Tea will be served at 4.30

The meeting will be held at the Linnean Society, Burlington House, Piccadilly, London W1

All interested are very welcome

1994 LMS PRIZES

The Council proposes to award, in Summer 1994, a Polya Prize, a Senior Berwick Prize, and one or more Junior Whitehead Prizes. Accordingly, it has appointed J.R. Ringrose, N.J. Hitchin, J.T. Stuart, M.J. Taylor and C.T.C. Wall to the 1994 Prizes Committee.

The Council invites members of the Society to submit their views on possible candidates for the award of these Prizes confidentially in writing to any member of the Prizes Committee by 1 March 1994. In each case, nominations should contain explicit reference to the grounds on which the nomination is based, and should be accompanied by a brief curriculum vitae (including date of birth), a list of publications, and a brief supporting case. The Prizes Committee would particularly welcome suggestions of possible candidates for the award of the Junior Whitehead Prize(s), in view of the age condition (explained below) which applies to these Prizes. Council reserves the right not to make an award in the event that no candidate of sufficient merit is recommended by the Prizes Committee for a particular Prize. The Polya Prize is awarded in recognition of outstanding creativity in, imaginative exposition of, or distinguished contribution to, mathematics within the United Kingdom; it may not be awarded to any person who has previously received the De Morgan Medal.

The Senior Berwick Prize is awarded to a mathematician who is a member of the Society on 1 January 1994, in respect of a definite piece of mathematical research work actually published by the Society in any of its publications during the period from 1 January 1990 to 31 December 1993; it may not be awarded to any person who has previously received the De Morgan Medal.

The Junior Whitehead Prizes are awarded to mathematicians who on 1 January 1994 are normally resident in the United Kingdom or members of the Society mainly educated in the United Kingdom, who are not already Fellows of the Royal Society, and who are under the age of forty years, except that this age restriction may be relaxed when it appears desirable to do so in order to take fair account of broken career patterns. Grounds for the award may include work in and influence on mathematics.

No person may be awarded a given Prize more than once, and the President of the Society and the members of the Prizes Committee are ineligible for any of the awards. The detailed regulations and procedure for the award of each Prize can be obtained from the Administrator, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL.

R. Y. Sharp
Council and General Secretary

SUPERIOR SPEAKERS SOUGHT

The Education Committee of the London Mathematical Society would welcome suggestions for future speakers in the LMS Popular Lectures series. The Popular Lectures should instruct and excite members of the general public about some mathematical topic, and an ideal speaker would certainly be someone who stands out as a lecturer to undergraduates. Please send the name of anyone you would like to recommend either to Susan Oakes at the LMS office, e-mail: lms@uk.ac.kcl.cc.bay or to Gordon James at Imperial College, e-mail: g.james@uk.ac.ic.

SALEM PRIZE

The Salem Prize for 1993 was awarded to Dr Sergei Treil from Michigan State University, for his work on Operator Theory and Complex Analysis. The Prize, established in 1968, is given every year to a young mathematician who is judged to have done outstanding work in the field of interest of Raphaël Salem primarily on Fourier series and related topics.

LONDON MATHEMATICAL SOCIETY

INVITED LECTURES

Dr John Madore
(CNRS, Orsay, France)

will give a course of ten lectures on

MATRIX GEOMETRY AND PHYSICS
(an introduction to non-commutative differential geometry and its applications)

at King's College, London during the week
Monday 21 - Friday 25 March 1994

Those wishing to reserve accommodation at a College Hall of Residence or to receive further details should contact Dr D.C. Robinson, Department of Mathematics, King's College, Strand, London WC2R 2LS, e-mail: d.robinson@uk.ac.kcl.cc.bay. Reservations for accommodation need to be confirmed by 30 January 1994.

ANNUAL LMS SUBSCRIPTION

The Society is appreciative of those members who have paid their 1993/94 subscriptions. May we remind those who have not yet paid, subscriptions were due on 1 November 1993. The Society reserves the right to discontinue the supply of periodicals and Newsletters to members whose subscription remains unpaid by 31 January 1994. The methods of payment are either by a sterling cheque drawn on a UK bank; a US$ cheque drawn on a US bank, Eurocheque quoting your card number on the reverse or by Giro. If you have misplaced your renewal of subscription form, contact the Assistant Administrator, Harvinder Lotay at the LMS office, telephone: 071 437 5377, fax: 071 439 4629, e-mail: lms@uk.ac.kcl.cc.bay.

46th BRITISH MATHEMATICAL COLLOQUIUM

As previously notified in the October Newsletter, the 46th British Mathematical Colloquium will be hosted by the University of Wales College of Cardiff (UWCC) from 28th to 31st March 1994. A booking form, including programme details, for intending participants is enclosed in the mailing with this Newsletter. Any queries may be addressed to Dr F.T. Brawn or Dr G. Harman, 46th BMC, School of Mathematics, UWCC, 23 Senghenydd Road, Cardiff CF2 4YH.

UNIONE MATEMATICA ITALIANA

Membership dues for members of associations with a reciprocity agreement with the U.M.I. for 1994 are It.L.60.000 (50% reduction with respect to ordinary dues for foreign members). Membership privileges include:

- Notiziario dell'U.M.I. (monthly + supplements), free.
- Membership list, free (included in the first issue of the year of the Notiziario).
- Bollettino dell'U.M.I., Section A (3 issues), free.
- Bollettino dell'U.M.I., Section B (4 issues) and other publications of the U.M.I. with discounts. Subscription price to Section B for 1994 (for members) is L.40.000; please, subscribe in this case by 31 January 1994.
  Subscription to Bollettino di Storia delle Scienze Matematiche for 1994 (discount price for ordinary members): L.32.000.
- Discounted fees for U.M.I. meetings.
  Right to vote in the election of officers.
- A book (from a special list) is sent as a gift to all members paying dues by 31 January 1994.

Money can be sent by bank cheque or by international postal order. Apply to Segreteria U.M.I., Dipartimento di Matematica, Piazza Porta S. Donato 5, 40127 Bologna, Italy.

NATO ADVANCED STUDY INSTITUTE
SÉMINAIRE DE MATHÉMATIQUES SUPÉRIEURES

A seminar on Topological Methods in Differential Equations and Inclusions will be held at the Université de Montréal 11 - 22 July 1994. The Seminar is held with the support of NATO, the Natural Sciences and Engineering Research Council of Canada, and the Université de Montréal.

The principal speakers are M. Degiovanni (Brescia), M. Frigon (Montréal), M. Furi (Firenze), L. Gorniewicz (Tórun), A. Granas (Montréal), J.K. Hale (Georgia Tech), J.W. Lee (Oregon State), J. Mawhin (Louvain), R. Ortega (Granada), K.P. Rybakowski (Trieste), K. Schmitt (Utah), P. Volkmann (Karlsruhe).

Partial financial assistance will be available. Priority will be given to graduate students. Requests for participation or financial assistance must be received before 1 March 1994. Further information is available from G. David, Department of Mathematics & Statistics, Université de Montréal, C.P. 6128-A, Montréal, Qué., Canada H3C 3J7, fax: (514) 343-5700.

DEVELOPMENTS IN THE MATHEMATICS OF IMAGE PROCESSING AND APPLICATIONS

The Institute of Mathematics and its Applications are holding an Evening Lecture on "Developments in the Mathematics of Image Processing and Application" on 27 January 1994. The invited speakers are Dr L. Norton Wayne (De Montfort University, Leicester) "The Efficient Description and Analysis of Silhouette Images" and Dr J. Skilling (Cavendish Laboratory, Cambridge) "Developments in Maximum Entropy". The format will be two 40 minute lectures followed by 10 minute discussion periods starting at 5.30 pm, separated by a break for drinks at 6.20 pm and ending at 7.45 pm. This is the first in a series of lecture discussion evenings The Institute is holding at The Medical School, University College, Cleveland Street, London.

There will be a small charge of £4.00 for refreshments and to meet expenses. To reserve a place at this lecture or to receive details of other events write to Mrs D. Budd, The Institute of Mathematics and its Applications, 16 Nelson Street, Southend-on-Sea, Essex SS1 1EF, telephone (0702) 354020, fax (0702) 354111.

BEQUEST OF PHILIP HOLGATE

Professor Philip Holgate, who died in April 1993, left his mathematical books to the London Mathematical Society. The Council of the London Mathematical Society resolved that items not required for the Society's library should be offered to members of the Society and to Philip's friends in return for a donation to a memorial fund "to be used for purposes that Philip would have wished to support", possibly connected with his interest in the history of mathematics.

A list of the books has been prepared. The books will be offered in two stages by sending bids to the Librarian of the Society. It is suggested that initially, bids (with cheques payable to the London Mathematical Society) should offer a minimum donation of £10 for the first volume and £5 for each subsequent volume. A donation "in return for any book with Philip Holgate's name written inside" would also be gratefully accepted. Any overseas bidders should add an estimated amount for extra postage. Such bids will be processed at the end of February and the books sent to the highest bidder. Unsuccessful bidders will have their money refunded. For the next stage a list of remaining titles will be prepared and subsequently books will be despatched on a first come first served basis in return for any reasonable donation that covers carriage.

The list, with full instructions on how to send bids, may be obtained in any of the following ways: (a) by e-mail, if a request is sent by e-mail to the Librarian (lmslibrarian@uk.ac.kcl.cc.bay) (b) by anonymous ftp (filename HOLGATE - for instructions, see the note in the December 1993 issue of the Newsletter) or (c) by post from the Society's office.

LIPMAN BERS

Professor Lipman Bers who was elected an Honorary Member of the London Mathematical Society in 1984, died on 29 October 1993.

BERNARD SCOTT

Professor D. Bernard Scott who was elected a member of the London Mathematical Society on 17 December 1937, died on 7 November 1993. He was awarded the Junior Berwick Prize in 1951.

PROGRAMME AND CONFERENCE FUND

The Society's Programme and Conference Fund is used to give financial support to various mathematical activities in the UK. This fund is administered by the Society's Programme Committee. Grants are made under four main headings.

1. Scheme 1 Visitors

Under this scheme, a speaker from abroad is invited to spend about two weeks in the UK, to address a Society Meeting and to give lectures in three or four separate institutions. The Society pays the cost of the visitor's travel to and from the UK and living expenses in London, and the host institutions are expected to share the cost of travel within the UK and local accommodation. LMS Council is anxious that greater use should be made of this scheme to enhance, by such visits, the benefit of LMS membership to those who are not easily able to attend London meetings. In planning the Society's future meetings, Programme Committee will have this scheme in mind, and suggestions from UK institutions for visitors they would like to receive but whose expenses they could not normally afford are strongly encouraged. Programme Committee tries to plan Society Meetings at least six months in advance. Thus a suggestion for a visitor under this scheme should best be made about one year before the proposed visit.

2. Scheme 2 Visitors

Under this scheme, some financial support is provided for visitors to the UK who do not address a Society Meeting but will give lectures in at least three separate institutions. Exceptionally, support under this scheme might be provided for a speaker addressing just one meeting which is regional in scope. The LMS contribution under this scheme would be for the visitor's travelling expenses to and from the UK. Host institutions are expected to share the cost of travel within the UK and local accommodation. All arrangements for a visit supported under this scheme are the responsibility of the member who makes the application. An application, in the form of a letter to the Meetings and Membership Secretary (address below), can be submitted at any time. A letter of application should contain a brief statement of the academic standing of the proposed visitor and of the justification of the visit, together with an estimated fare at advance purchase or other advantageous rate.

Ideally applications should be made at least three months before the starting date of the proposed visit, so that the lectures to be given can be publicized in the Society's Newsletter but straightforward applications can be processed quickly if necessary. Grants made under this scheme do not normally exceed £300.

Since 1 June 1993, grants have been made under Scheme 2 to support the following visits: Professor K.R. Goodearl (K.A. Brown), Dr S. Gudmundsson (J.C. Wood), Professor G. Carlsson (A. Ranicki), Professor R. Bottazini (J. Gray), Professor V.L. Hansen (D.R.J. Chillingworth), Professor S. Kalpazidou (S. Alpern), Professor J. Eschmeier (H.G. Dales).

3. fSU Visitor Scheme

Under this scheme the London Mathematical Society will fund a limited number of short visits either by mathematicians from the former Soviet Union (fSU) to the United Kingdom (UK) or by mathematicians from the UK to the fSU. The level of funding will be such that basic travel and subsistence costs will be covered.

Visits to a single institution, to a number of institutions or attendance at a conference will be eligible for funding. Success of an application will depend mainly on the likelihood of potential benefit to mathematics in the fSU.

Applications for a grant under this

scheme should be made by mathematicians at UK institutions, both for visits to the UK and for visits to the fSU. They should be supported and countersigned by a member of the Society if the applicant is not already a member of the Society. There is no application form as such: a letter of application should be sent to the Meetings and Membership Secretary (address below) giving details of the academic case for support and details of anticipated costs. This can be done at any time, but normally at least three months before the date of the proposed visit to allow for consideration by the Society's Programme Committee and, in the case of visits to the UK, an announcement of the visit in the Society's newsletter. A grant under the scheme would normally be for less than £1000.

All arrangements for a visit under this scheme are the responsibility of the applicant. The fSU Scheme has its own allocation within the Programme and Conference Fund.

Grants for the following visits have been made since 1 June 1993: J.M. Howie for J-F. Ponizovskii, P.M. Higgins for V.A. Molchanov, X. Mao for A. Rodkina, G. Greaves to Tula, I.G. Graham for R. Duduchava, R. Stöhr for R.I. Grigorchuk, R. Stöhr for Yu.V. Kuzmin, R. Stöhr for A.Yu. Olshanskii, J.C. Wood for A.T. Fomenko, J.C. Wood for D.A. Korotkin, A.B. Movchan for S.A. Vavilov, M.N. Huxley to Kiev, K. Meinke for A. Gomolko, B. Hartley for V.V. Belyaev.

4. Conference Grants

Grants are made to the organisers of conferences to be held in the United Kingdom. Programme Committee tends to give priority to the support of meetings where an LMS grant can be expected to make a significant contribution to the viability and success of the meeting. Support of larger meetings of high quality is not ruled out but for such meetings an LMS grant would normally cover only a modest part of the total cost. An application form, obtainable from the Meetings and Membership Secretary (address below) sets out conditions under which grants are normally made and requests the information Programme Committee usually requires when considering an application. Potential applicants should note that the Society is reluctant to award grants to conferences which clash with the British Mathematical Colloquium.

The following grants for support of conferences have been made since 1 June 1993: £380 to D.B. Duncan for the "Scottish Computational Mathematics Symposium" held in September 1993, £708 to P.M. Higgins for "Transformation Semigroups and Applications" held in August 1993, £2050 to J.F. Toland for the "Instructional Conference on Analytic Aspects of PDEs" to be held in September 1994, £722 to R.S. MacKay for "Nonlinearity" to be held in March 1994, £1310 to J.C. Wood for "Harmonic Maps and Curvature Properties of Submanifolds" to be held in July 1994, £480 to S.B. Cooper and J.K. Truss for the "Leeds Logic Conference" held in December 1993, £1200 to P. Chatwin for the "British Applied Mathematics Colloquium" to be held in April 1994, £1000 to A Iserles and M.D. Buhmann for the "Conference on Numerical Mathematics" to be held in Summer 1996.

Further information about these functions of Programme Committee can be obtained from the Meetings and Membership Secretary, Dr D.J. Collins, School of Mathematical Sciences, Queen Mary and Westfield College, Mile End Road, London E1 4NS (telephone: 071-975-5480; e-mail: d.j.collins@qmw.ac.uk) who will be pleased to discuss proposals informally with potential applicants and give advice on the submission of an application. The next meeting of Programme Committee will be held in February 1994 and it would be appreciated if applications to be considered at that meeting could be submitted no later than 31st January 1994

NONLINEARITY '94

A 1½-day meeting on Nonlinearity will be held at the Mathematics Department, Huxley Building, Imperial College, 180 Queen's Gate, London SW7 2BZ, from 2pm Saturday 19 March to 5 pm Sunday 20 March 1994.

The purpose is to learn about recent advances on the forefront of research in Nonlinear Systems, in particular those arising from the fruitful interplay between abstract mathematics and real world problems.

The speakers will be: S. Aubry (Laboratoire Léon Brillouin, Saclay); S. Childress (Courant Institute of Mathematical Sciences, New York); P. Constantin (Mathematics, University of Chicago); Y. Couder (Physique, Ecole Normale Supérieure, Paris); J-P. Eckmann (Physique Théorique, Geneva); J. Laskar (Bureau des Longitudes, Paris); H. Levine (Physics, San Diego); D.A. Rand (Mathematics, Warwick).

All are welcome to attend. In order that we can estimate numbers, please indicate your intention to attend, or probability of attendance, by e-mail to robert@maths.warwick.ac.uk or fax to R.S. Mackay + 44:203-524182, as soon as possible, and in any case by 28 February 1994.

Participants are requested to make their own arrangements for accommodation. There will be a registration fee of about £10, payable at the door, to cover the cost of refreshments during the meeting and a buffet lunch on Sunday.

This meeting is organised by R.S. MacKay (Mathematics, Warwick), I. Procaccia (Chemical Physics, Weizmann Institute, Israel), and J.D. Gibbon (Mathematics, Imperial College). It is sponsored by the London Mathematical Society, the Institute of Physics Publishing Company and the journal "Nonlinearity".

GRESHAM GEOMETRY LECTURES

Professor Sir Christopher Zeeman, FRS, Gresham Professor of Geometry will give the following lectures during the spring semester: "The Dynamics of Darwinian Evolution" Tuesday 1 February 5.00 pm at the City of London School for Girls, Barbican, London EC2; "What is the Circumference of a Circle" Thursday 3 March 5.00 pm at Gresham College and "Fermat's Last Theorem" Tuesday 31 May 5.00 pm at Gresham College. Admission to all of the lectures is free. Further details are available from Gresham College, Barnard's Inn Hall, Holborn, London EC1N 2HH, telephone: 071 831 0575.

OFFICE OF THE YEAR

At a ceremony in London it was announced that the Isaac Newton Institute for Mathematical Sciences, Cambridge, had won the 1993 Office of the Year Award for Innovation. This award is given to any office building "with innovative design that has helped its occupants to be more effective in meeting business objectives". In the case of the Newton Institute the judges decided that it represented a building where innovation had a most fundamental impact on the overall use. The chairman of the panel of judges made special mention of the groups of people talking around chalkboards with complicated hieroglyphics and explained these chalkboards were everywhere, even in the lavatories. Anyone who wants to see an innovative building is very welcome to visit the Institute, where they can also admire the decanter presented by HRH the Duke of Gloucester.

FERMAT, AGAIN

John Coates gave a lecture on Fermat's Last Theorem in the series of Isaac Newton Institute seminars. His lecture caused some excitement among those present, as he announced a minor problem with Andrew Wiles' proof. He said that filling this gap will need some work and may take anything from a couple of months to a couple of years to complete. Reports from Princeton give the reassuring news that Andrew Wiles is not too worried about this.

CHAIR OF STATISTICS

Applications are invited for a Professorship of Statistics in the School of Mathematical Sciences. The position is available from 1 September 1994 or at a later date by agreement.

Applicants may have research interests in any branch of Probability, Applied Probability or Statistics, although preference may be given to applicants whose interests overlap the existing areas of research within the Statistics Group. Research in the Statistics Group covers pure and applied probability, stochastic models in genetics, interacting particle systems, combinatorial probability, and extremal behaviour of random systems.

The Statistics Group is part of the School of Mathematical Sciences which incorporates research and teaching in Pure Mathematics, Applied Mathematics, Probability and Statistics, Computing, and Astronomy. There are also strong Groups in Algebra, Combinatorics, Algebraic Topology, Logic, Symbolic Computation, Dynamical Systems, Relativity, Theoretical and Observational Astronomy and in Space Physics. In the latest research ratings, Pure Mathematics and Statistics both received the highest rating (5), Applied Mathematics 4 and Astronomy (as part of Physics), was rated 4. There is a very lively research atmosphere within the School, and interaction across disciplines.

The Professor will be required to contribute to undergraduate and postgraduate teaching within the School, to supervise research students, to pursue and lead research, and to undertake administrative responsibilities. Applicants should demonstrate originality and achievements in research.

Informal enquiries may be addressed to Professor I W Roxburgh, Head of the School of Mathematical Sciences, telephone (0)71-975 5440, e-mail I.W. Roxburgh@qmw.ac.uk, fax: (0)81-981 9587, or Professor M A H MacCallum, Director of Mathematics, telephone (0)71-975 5445, e-mail M.A.H.MacCallum@qmw.ac.uk., fax: (0)81-981 9587.

The salary will be not less than £32,532 pa inclusive.

For further particulars and an application form, telephone (0)71-975-5171 (24 hour answerphone service) or write to: the Recruitment Coordinator, Personnel Office, Queen Mary and Westfield College, Mile End Road, London E1 4NS, UK, quoting reference 93128.

Closing date for applications: 18 February 1994.

UNIVERSITY OF LONDON

WORKING TOWARDS EQUAL OPPORTUNITIES

A STRATEGY FOR ENGINEERING, SCIENCE AND TECHNOLOGY
Letter from the President to the Rt. Hon. William Waldegrave, MP.

At its recent meeting in October the Council of the London Mathematical Society discussed various aspects of your White Paper, 'Realising our Potential - A Strategy for Engineering, Science and Technology'. We welcome many of the aims and proposals contained in the Paper and will work to support them. There are, however, two specific proposals which are causing great concern to the mathematical community and upon which we wish to comment. Before doing so, we would like to make the general observation that the different disciplines covered by the White Paper have diverse needs. What is apt for one may be most inappropriate for another. So our comments are specific to Mathematics, although they may also apply to some other disciplines.

The first proposal of concern to us is that a student embarking upon a PhD research project should normally first have taken an MSc (paragraphs 7.20 and 7.21 of the White Paper). While this may be appropriate for mathematics students who have taken the current three-year undergraduate course, such a proposal for the mathematical sciences appears to disregard the consensus about the training of mathematicians reached after wide-ranging discussions of recent years. In particular, it fails to consider the effect of the very recent introduction of four-year undergraduate (MMath) degrees in mathematics.

In 1991, a working party was set up by the Society to look into the future of honours degree courses in mathematics and statistics. Attached is a copy of its Report, which was published in February 1992 with the approval of the Councils of the London Mathematical Society, the Royal Statistical Society, and the Institute of Mathematics and its Applications. The main thrust of the Report was the recommendation that a four-year degree course was urgently needed for some students, amounting to approximately 30% of the annual intake. Subsequently, the Joint Mathematical Council sought and obtained approval from the Department for Education that the new three- or four-year degree programme would attract mandatory LEA support under existing regulations for first degrees. As the Report shows, the four-year degree is needed to compensate for present and forthcoming changes in the school curriculum in mathematics, to provide a better training, and to bring students nearer to the frontiers of knowledge in the fourth year than is possible at present. The three-year degree will lead to an honours degree comparable to three-year degrees in other subjects and suitable for those who do not intend to become professional mathematicians. The presence of both types of degree allows for a much better match with the needs of the student. Two universities have admitted students to the new degree structure this year and many intend to do so in October 1994 and October 1995.

The mathematical community is convinced that the introduction of these new degrees is the best way forward for mathematics and that the four-year degree will provide a much improved and satisfactory basis for entry to a PhD programme. We believe that it will achieve the aims of the White Paper in the following respects:

* graduates will have acquired skills of value for a wide range of careers in industry and elsewhere;
* graduates will be in a better position to decide whether they have aptitude for research;
* there will be a stronger basis for selecting students for research.

We welcome the fact that the White Paper states that some students will already have undertaken work in their undergraduate course which fits them for direct registration for a PhD. We believe that the new four-year degree in mathematics falls within that category and that this should be acknowledged by the funding bodies.

Our second concern is the need for an increase in the number of PhDs in the

mathematical sciences. This is now well documented for, as a recent survey of employment patterns commissioned by the SERC has shown, the underproduction of PhDs in the mathematical sciences is at least as severe as was indicated in the 1990 Kingman Report. There is a steady demand for PhDs from industry, and during the next ten years or so there will be an increasing demand from the university sector as retirements of existing staff reach their peak. Our hope is that the new four-year degree will encourage a greater number of our most gifted students to continue into research. If this is to be achieved there must be some increase in the support available from the research councils for three-year research studentships. As specified in paragraphs 7.21 and 7.23 of the White Paper, the imposition of the requirement for an MSc within the existing resources available to the research councils would, on the contrary, lead to a substantial decrease in the number of PhD students. We therefore urge that this proposal be reconsidered.

The Society would welcome the opportunity of discussing these issues with you.

J.R. Ringrose

VISIT OF PROFESSOR VAGN LUNDSGGARD HANSEN

Professor Vagn Hansen of the Technical University of Denmark will be visiting the University of Southampton early in the new year (4 - 14 January 1994) with support from the LMS under Scheme 2. Professor Hansen works in differential geometry, low-dimensional topology, braids and links; he was the translator of the recent English version of the complete works of J. Nielsen. While in the UK Professor Hansen will also be lecturing at the Universities of Sussex and Warwick. For further details contact Dr David Chillingworth, Department of Mathematics, University of Southampton, Southampton SO9 5NH; tel: 0703 593677, e-mail: drjc@maths.soton.ac.uk.

VISIT OF PROFESSOR ESCHMEIER

Professor J. Eschmeier of Westfallische Wilhelms-Universität, Munich, will be visiting the UK in February 1994, supported by a Scheme 2 Visitor's Grant of the London Mathematical Society. He will give two lectures at a meeting of the North British Functional Analysis Seminar, in the University of Leeds, on Friday 11 February. The titles of the talks and times are: 2.30 pm Functional models and invariant subspaces and 4.00 pm Local spectral theory in several variables. For further details, contact H.G. Dales.

He will also lecture in the Functional Analysis Seminar held in the Department of Pure Mathematics and Mathematical Statistics, Cambridge, at 2.15 pm on Wednesday 16 February (contact T. Körner), and in the Analysis Seminar held in the Department of Mathematics, King's College, London at 2.15 pm on Thursday 17 February (contact F. Jellett).

NATIONAL SCIENCE FESTIVAL

The National Week of Science Engineering and Technology (as it is now to be known) is only two months away. As mentioned in the December issue of the Newsletter, the Education Committee will be supporting a number of activities and can suggest the sorts of events Departments might organize. (The Secretary of the Committee is Dr T. Porter of the University College of North Wales at Bangor.) Many Departments will be participating as part of their university's contribution. At the time of writing, the British Association had not yet set up its local centres, so I cannot tell you how to link with other activities in your region. Ring Brian Gamble, David Butler or Iain Cairns at the British Association in London (071-494-3326) for information. If all else fails, contact me and I will try to help.

P.T. Saunders
King's College, London

LMS Lecture Note

25% Discount for all LMS me

Algebraic Varieties

G. KEMPF

In this book Professor Kempf gives an introduction to the theory of algebraic functions on varieties from a sheaf theoretic standpoint. By taking this view he is able to give a clear and lucid account of the subject which will be easily accessible to all newcomers to algebraic varieties.

£22.95 PB 0 521 42613 8 173 pp. 1994

Discount price for LMS members £17.21

London Mathematical Society Lecture Note Series 172

Squares

A. R. RAJWADE

Many classical and modern results and quadratic forms are brought together in this book. The author deals with many different approaches to the study of squares from the classical works of the late 19th century, to areas of current research. Anyone with an interest in algebra or number theory will find this a most fascinating volume.

£27.50 PB 0 521 42668 5 304 pp. 1993

Discount price for LMS members £20.63

London Mathematical Society Lecture Note Series 171

Two-dimensional Homotopy and Combinatorial Group Theory

Edited by CYNTHIA HOG-ANGELONI, WOLFGANG METZLER and ALLAN J. SIERADSKI

Basic work on two-dimensional homotopy theory dates back to K. Reidemeister and J. H. C. Whitehead. Much work in this area has been done since then, and this book considers the current state of knowledge in all the aspects of the subject. Some of the material here has been used in courses, making this book valuable for anyone with an interest in two dimensional homotopy theory.

£25.00 PB 0 521 44700 3 424 pp. 1993

Discount price for LMS members £18.75

London Mathematical Society Lecture Note Series 197

Complexity: Knots, Colourings and Countings

DOMINIC WELSH

These notes are based on a series of lectures gi at the Advanced Research Institute of Discrete Applied Mathematics in June 1991. Their aim to link together algorithmic problems arising i knot theory, statistical physics and classical combinatorics. To researchers in discrete mathematics, computer science, and statistical physics, this book will be of great interest.

£19.95 PB 0 521 45740 8 171 pp. 1993

Discount price for LMS members £14.96

London Mathematical Society Lecture Note Series 18

Surveys in Combinatorics, 19

Edited by K. WALKER

This volume comprises the invited lectures giv at the 14th British Combinatorial Conference. The lectures survey many topical areas of curre activity in combinatorics and its applications, a also provide a valuable overview of the subject, both mathematicians and computer scientists.

£22.95 net PB 0 521 44857 3 296 pp. 1993

Discount price for LMS members £17.21

London Mathematical Society Lecture Note Series 18

Polynomial Invariants of Finite Groups

D. J. BENSON

This is the first book to deal with invariant the and the representations of finite groups. By restricting attention to finite groups Dr Benson able to avoid recourse to the technical machine of algebraic groups, and he develops the necess results from commutative algebra as he proceed This volume will appeal to all algebraists, but especially those working in representation theo group theory, and commutative or homological algebra.

£19.95 PB 0 521 45886 2 128 pp. 1993

Discount price for LMS members £14.96

London Mathematical Society Lecture Note Series 19

eries

ymplectic Geometry

dited by DIETMAR SALAMON

his volume is based on lectures given at a orkshop and conference on symplectic geometry t the University of Warwick in August 1990. he contributions to this volume reflect the ichness of the subject and include expository apers as well as original research. They will be an ssential source for all research mathematicians in ymplectic geometry.

25.00 PB 0 521 44699 6 300 pp. 1994

iscount price for LMS members £18.75

ondon Mathematical Society Lecture Note Series 192

inite Geometries and ombinatorics

dited by F.DE CLERCK, J. HIRSCHFELD, LBRECHT BEUTELSPACHER, RANCIS BUEKENHOUT, JEAN DOYEN nd JOSEPH A. THAS

his is a collection of 35 articles covering topics uch as finite projective spaces, generalised olygons, strongly regular graphs, diagram eometries and polar spaces. Included here are rticles from many of the leading practitioners in he field including, for the first time, several listinguished Russian mathematicians.

27.50 PB 0 521 44850 6 424 pp. 1993

Discount price for LMS members £20.63

London Mathematical Society Lecture Note Series 191

Representations of Solvable Groups

OLAF MANZ and THOMAS WOLF

The role of representation theory in algebra is an important one and in this book Manz and Wolf concentrate on that part of the theory which relates to solvable groups. Researchers into group theory, representation theory, or both, will find that this book has much to offer.

£25.00 PB 0 521 39739 1 314 pp. 1993

Discount price for LMS members £18.75

London Mathematical Society Lecture Note Series 185

DISCOUNT ORDER FORM

LMS members are entitled to a 25% discount on all Cambridge/LMS co-publications (full prices apply to all titles which are not jointly published). To order please send this form to Tom Peacock at the address below, 'phone 0223 325970 or fax 0223 315052.

Qty	Author	ISBN	Price
		Total	

☐ I enclose a sterling cheque/eurocheque (payable to Cambridge University Press)

☐ Please debit my credit card (Access/Mastercard/ VISA/Amex)* **Please delete as applicable*

Card no. _____

Expiry Date _____

Signature _____

Name of cardholder _____

Address _____

_____

_____

CAMBRIDGE UNIVERSITY PRESS

FREEPOST, The Edinburgh Building, Shaftesbury Rd., Cambridge CB2 1BR

E-mail: TW10002@PHX.CAM.AC.UK

A CELEBRATION OF WOMEN IN MATHEMATICS

On the weekend of 5 - 6 March 1994 a two day conference will be held at MIT, Cambridge, Massachusetts, to illustrate the impressive contributions that women have made in mathematics. Colloquium style lectures will be given by distinguished women mathematicians on a wide range of topics which will include analysis, differential geometry, dynamical systems, knot theory, minimal surfaces, mathematical physics, symplectic geometry, applied mathematics, and computing. The lectures will be given by: Joan Birman (Columbia); Dusa McDuff (SUNY, Stony Brook); Jill Mesirov (Thinking Machines); Cathleen Morawetz (Courant); Jill Pipher (Brown); Jean Taylor (Rutgers); Chuu Lian Terng (Northeastern); Karen Uhlenbeck (U of Texas); Lai Sang Young (U of Arizona).

This workshop is funded by the NSF Visiting Professorship for Women Program and supported by Brown University and MIT. All mathematicians are cordially invited to attend. For further information please contact: Susan Friedlander, e-mail: susan@math. nwu.edu

MATHEMATICAL SCIENCES ANNUAL 1994
Corrigenda

University of Edinburgh
Replace Department of Mathematics by Department of Mathematics and Statistics: delete Department of Statistics

Kingston University
School of Mathematics (081) 547 7922, fax (081) 549 7796
School of Computer Science (081) 547 7651, fax (081) 547 7824
School of Information Systems (081) 547 7690, fax (081) 547 7887

Liverpool John Moores University
School of Computing and Mathematical Sciences (051) 231 2104, fax (051) 207 4594

Loughborough University of Technology
Department of Computer Studies (0509) 222681, fax (0509) 211586

University of Newcastle
Replace Computing Laboratory by Department of Computing Science

University of Sussex
Computer Science and Artificial Intelligence (0273) 678195, fax (0273) 671320

UMIST
Department of Computation (061) 236 3311, fax (061) 200 3324

University of West England
Department of Mathematical Science (0272) 763858, fax (0272) 763860
Department of Computing (0272) 763992, fax (0272) 763860
Bristol Transputer Centre (0282) 656261, fax (0272) 750416

NORTH BRITISH FUNCTIONAL ANALYSIS SEMINAR

A meeting of the North British Functional Analysis Seminar will be held at Leeds University from 2.30pm on Friday 11th February to midday on Saturday 12th February 1994. The speakers will be Professor J. Eschmeier and Dr P. Wojtaszczyk. All interested are most welcome to attend.

For further information contact Dr Gordon Blower, NBFAS Secretary, Department of Mathematics, University of Lancaster, Lancaster LA1 4YF. tel: 0524-65201 ext 3962, fax: 0524-841710, e-mail: maa008@uk.ac.lancs.cent1.

INTERNATIONAL WORKSHOP ON QUANTUM COMMUNICATIONS AND MEASUREMENT
Preliminary announcement and call for papers

An International Workshop on Quantum Communications and Measurement is being held from 11 - 16 July 1994 at the University of Nottingham. This conference follows the successful meeting on Quantum Aspects of Optical Communications organised by CNRS and Tamagawa University in Paris in November 1990. The conference will be devoted to mathematical, physical and interpretative problems of quantum noise and quantum information in open systems and optical communications. It will bring into contact research workers in experimental and engineering aspects of quantum optics and communication systems with mathematicians and physicists working in quantum probability and measurement theory.

Topics will include: Mathematical foundations of quantum communications; Quantum noise and output stochastic processes; Quantum measurement and dynamical reduction theory; Causality, filtering and control in quantum systems; Squeezed states and nonclassical light; New quantum optical phenomena and effects; Proposed experiments for quantum communications; Devices for quantum communication systems.

For further information and registration contact: V P Belavkin, Mathematics Department, University of Nottingham, University Park, Nottingham NG7 2RD, tel: 0602 514954, fax: 0602 514951, e-mail: qcm@maths.nott.ac.uk.

GROUPS AND GEOMETRY CONFERENCE

A conference on Groups and Geometry is planned for the week 16 - 20 May 1994 at the University of Auckland, New Zealand. Invited speakers are likely to include the following: Jianbei An (Auckland), Fred Gehring (Michigan), Don James (Penn State), Gus Lehrer (Sydney), Murray Macbeath (St Andrews), Colin Maclachlan (Aberdeen), Mike Newman (Canberra), Alan Reid (Cambridge), and Hyam Rubinstein (Melbourne). Enquiries may be directed to the organisers: Marston Conder and Gaven Martin, Department of Mathematics, University of Auckland, Private Bag 92019, Auckland, New Zealand, fax: 0064-9-3737457, or e-mail: conder@mat.aukuni.ac.nz.

INTERNATIONAL COLLOQUIUM ON NON-STANDARD MATHEMATICS

An International Colloquium on Non-Standard Mathematics will be held from 18 - 22 July 1994 at the University of Aveiro and the University of Beira Interior, Portugal. The aim of the Colloquium is to bring together researchers and other people interested in Non-Standard Mathematics. The following mathematicians have been invited to speak: Professor N.J. Cutland (Hull, England), Professor R.F. Hoskins (Granfield, England), Professor H.J. Keisler (Wisconsin, U.S.A.), Professor T. Lindstrom (Oslo, Norway), Professor W.A.J. Luxemburg (Pasadena, California, U.S.A.), Professor M. Oberguggenberger (Innsbrück, Austria), Professor A. Robert (Newchâtel, Switzerland, Professor K.D. Stroyan (Iowa, U.S.A.).

For further information contact José Sousa Pinto, CIMNS, Departamento de Matemática, Universidade de Aveiro, 3800 Aveiro, Portugal.

RESEARCH ASSESSMENT
LMS Response to an HEFCE Consultation Paper

In June 1993, the HEFCE published a Consultation Paper on Research Assessment. The President prepared a response on behalf of the Council of the London Mathematical Society commenting on issues raised in the paper as follows.

Should the subsequent exercise be based on peer review, informed by appropriate supplementary data, as in 1992?
We are convinced that peer review, undertaken by a highly competent panel, is by far the most reliable method for assessing research quality. While the subjective element cannot be eliminated entirely, in a judgement of the quality of mathematical research, we believe that it represents only a minor component in an assessment made by a well-qualified panel. We are strongly opposed to any suggestion that "research quality" could be replaced by other indicators, more easily measured in numerical terms, but in our view much less relevant - such as page counts, or paper counts, as an estimate of "research productivity". We are firm in our conviction that the (minor) subjectivity involved in the assessment of research quality by peer review is infinitely preferable to the use of alternative (easily quantified, perhaps objective, but artificial) indicators.

Should an element of self-evaluation be introduced?
We see some merit in the suggestion (paragraph 15 of the consultative document) that departments seeking high grades might be expected to submit fuller information than others. For example, there could be an "optional" section of the form on which departments supply information, with a heading indicating that a department not completing that section will not be considered for the highest grade. The decision of a department - as to whether or not it completed the optional section - would involve a measure of self-assessment; in addition (an important factor), the implications of the decision would be clear at the outset. We believe that a more detailed or elaborate requirement for self-assessment is likely to leave respondents uncertain as to what is required, and to introduce an undesirable level of subjectivity.

What should be the interval between assessments?
We favour a period of four, or perhaps five, years between assessments.

Should the exercise cover all UK institutions, or should there be separate exercises conducted by each funding body?
We strongly favour an exercise covering all UK institutions.

Should separate ratings be given for basic/strategic research and for applied research?
We do not think it would be useful to introduce separate ratings for basic/strategic research and for applied research. We doubt whether either departments or panels will be able to categorise with sufficient assurance to make such a system reliable.

How should interdisciplinary research be assessed?
The question of interdisciplinary research is important to the mathematical community, partly because quite a lot of departments have research interests that "mix" the traditional pure/applied/statistics components, as well as interacting with other disciplines. Panels should be expected to consult (in confidence) suitably qualified persons outside their own membership, when this is necessary to reach an informed judgement.

Should data on numbers of publications per staff member cease to be required, in recognition of the fact that quality not quantity of output is the essential criterion for assessment?
We are firmly opposed to the collection of data concerning the total number of published papers (or, even worse, published pages) emanating from a

department during the assessment period. Collection of this type of information will undermine confidence that research quality is the key issue. Belief that such information may be collected on a regular basis would be likely to lead to undesirable patterns of publication, possibly with a detrimental effect on the quality of the research undertaken.

What information, and how many publications per staff member, should be required to be cited as part of the assessment?

Subject to our comment on the interval between assessments, we suggest that individuals should be asked to cite their best five publications during the assessment period, with a clear indication as to their nature (eg, refereed research journal; conference proceedings, etc). For two reasons, we believe that papers written by research students and research assistants should be taken into account - firstly, because we consider that they form a relevant part of the research activity of the department; secondly, because we are concerned to avoid pressures leading to the introduction of bad practice whereby research supervisors put their names on papers to which they have made little contribution. We would also like to see due recognition given to activities, such as membership of editorial boards of research journals, that indicate good standing in the research community and involve serious research-related work.

Should the present five point rating scale be lengthened, in particular to allow greater differentiation between middle ranking departments?

There is some support for the proposal to use a somewhat longer rating scale, in order to allow greater differentiation between middle ranking departments.

On what basis should assessment panels be constituted; and how many units of assessment should be used?

The primary requirement is that the panels should consist of persons who command respect within the academic community for their own pre-eminence in research. Consultation with learned societies, as to the possible membership of panels, might help to achieve this, and might also help to ensure that panels are viewed as impartial as well as highly competent.

It is desirable that the judgements of panels include a genuine international perspective, either through an international element within their membership or through appropriate consultation outside their membership.

While it is desirable to have a degree of continuity, from one assessment exercise to the next, it is also important to have some variation in the membership of a panel, in order to reduce even further the long-term effects of any (small) element of subjectivity in the judgements made. The President commented on behalf of Council on three additional matters.

Feedback after the assessment exercise.

After the 1992 Research Exercise, there was concern in some quarters (whether justified or not) about an alleged wide variation of practice among the various subject panels as to the nature and extent of the information released (perhaps informally, by individual members) to the departments they had assessed. This gave rise to a fear that some departments were being unfairly disadvantaged relative to others (through lack of information) within their own institutions. We find it very difficult to assess whether or not there is any real basis for these concerns; but, irrespective of that, the perception exists, and it is desirable to deal with it, as far as possible.

It might be helpful to have a formal mechanism whereby a Vice-Chancellor who so desires may receive in confidence more details about the assessment of all the departments in his institution - with the implication that this release of information is uniform across all subjects (and involves no appeals mechanism!).

While informal qualitative feedback, from panel members to departments assessed, may in some instances serve a useful purpose, it is essential to have a clearly defined guideline (uniform across all subjects) as to the nature and extent of permissible feedback in such cases.

Departmental options over the provision of information.
When departments are offered a formal choice, as to the nature and extent of the information they supply prior to the assessment exercise, it is essential that the implications of their choice are made clear in advance. After the 1992 exercise, many departments felt that they had not been made aware of the implications of their decision as to whether or not all members of their staff should be included in the review. (On this specific point, our preference for the future is that a departmental submission must include all members of academic staff.) In a nutshell, the "rules of the game" should be established at the outset.

The form on which information is gathered.
Is it possible to use different forms for various broad subject groupings (arts and humanities, sciences, technology)? There is such an enormous range of activity being covered here, that an "all purpose" form appears not particularly well-suited to any one of them. Your panels may be able to advise on this.

23RD INTERNATIONAL CONGRESS OF MATHEMATICIANS

The Royal Society and the London Mathematical Society are jointly making funds available to assist with the expenses of scientists hoping to attend the above Congress. The closing date for receipt of applications will be 11 February 1994 and persons wishing to apply for assistance should obtain the appropriate application form from Miss B.M. de Vere, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, telephone 071 839 5561 ext 222, fax 071 930 2170. Potential applicants should note that funds are strictly limited and that grants are only likely to cover a proportion of total expenditure.

The University of Edinburgh is seeking to fill two Chairs in the Department of Mathematics and Statistics to enhance further the teaching and research reputations of this Department.

COLIN MacLAURIN CHAIR OF MATHEMATICS

Applications are invited for the Colin MacLaurin Chair of Mathematics. The University seeks to appoint a distinguished mathematician with a considerable international reputation in a central area of mathematics. The successful candidate will play an important role in leading the research of the Department.

Please quote *REF: LMSN 930490.*

CHAIR OF STATISTICS

The University seeks to appoint to the Chair of Statistics a distinguished statistician with a substantial international reputation in research. The successful candidate will play an important role in leading the research and teaching in statistics in the Department and fostering collaborative research both within and beyond the University.

Please quote *REF: LMSN 930491.*

Each position is available from 1 October, 1994, or an alternative date by mutual agreement.

Informal enquiries about either Chair may be made to Professor D F Parker (Telephone: 031-650 5062 or Fax: 031-650 6521).

Further information may be obtained from:

THE SECRETARY TO THE UNIVERSITY,
THE UNIVERSITY OF EDINBURGH,
1 ROXBURGH STREET,
EDINBURGH EH8 9TB,

with whom applications (14 copies, except for candidates from overseas who need submit only one copy) including a curriculum vitae and giving the names and addresses of three referees should be lodged.

Closing date: 28 February, 1994.

INTERNATIONAL CENTRE FOR MATHEMATICAL SCIENCES

The International Centre for Mathematical Sciences (ICMS) is a joint venture of Edinburgh and Heriot-Watt Universities, in cooperation with the City of Edinburgh District Council, Lothian and Edinburgh Enterprise Limited and the International Centre for Theoretical Physics, Trieste. It is supported by the Royal Society of London, the Royal Society of Edinburgh, and the London and Edinburgh Mathematical Societies. It also receives financial support from three Edinburgh Life Assurance Companies, Standard Life, Scottish Widows, and Scottish Provident.

The ICMS has recently announced the appointment of Professor A.J. Macintyre, FRS, as its Scientific Director. Professor Macintyre currently holds an SERC Senior Fellowship at the Mathematical Institute, University of Oxford, and will have oversight of the planning of the ICMS scientific programme. Day-to-day administration will be conducted by an Executive Secretary who will be based in 14 India Street, Edinburgh from April 1994.

The James Clerk Maxwell Foundation, with which the ICMS has close links, took possession of James Clerk Maxwell's birthplace at 14 India Street in mid-September 1993. After the refurbishment of the building and the installation of equipment, the ICMS will assume the tenancy in April 1994. The house will provide offices for the Scientific Director, the Executive Secretary and for scientific visitors, a library as well as seminar facilities for over fifty.

The ICMS Programme Committee will next meet in April 1994. Proposals are invited for research programmes, workshops and courses on any topic in the mathematical sciences, interpreted broadly; particularly welcome are proposals of an interdisciplinary nature. Proposals should arrive no later than 28 January 1994 and be no longer than 2 sides of A4. They should be sent to: E.G. Rees, International Centre for Mathematical Sciences, Department of Mathematics and Statistics, University of Edinburgh, King's Buildings, Edinburgh EH9 3JZ, Scotland, tel. 031-650 5087 (sec. 031-650 5086), Fax 031-650 6553, e-mail elmer@maths.ed.ac.uk, from whom advice on the preparation of proposals can be obtained.

MATHEMATICS INSTITUTE
UNIVERSITY OF WARWICK

E.C. Zeeman Research Fellowship in Mathematics

Applications are invited for the first E.C. Zeeman Research Fellowship in Mathematics. The position is available from October 1st, 1994, and is tenable for three years.

Applicants may have research interests in any branch of mathematics. They must be within two years of completing their PhD thesis on October 1st, 1994; apart from this there are no other restrictions on potential applicants.

The salary will be on the Research Assistant Scale £12,828 to £20,442 at age-for-wage plus three additional increments (to reflect the prestigious nature of the Fellowship).

The successful applicant will be expected to do no more than three hours teaching per week and this may be entirely at post-graduate level.

Applicants must submit a summary of their research interests, a research plan (one side of A4 maximum), and a Curriculum Vitae. They must arrange for two letters of recommendation to be sent directly to the address below. Applicants are invited to submit in addition one or more pieces of recent work (for example PhD thesis, pre-prints, papers).

The closing date for applications is: **31st March 1994.**

Address for correspondence: E.C. Zeeman Fellowship in Mathematics,
Mathematics Institute,
University of Warwick,
Coventry CV4 7AL,
U.K.

LONDON MATHEMATICAL SOCIETY
COUNCIL, COMMITTEES AND REPRESENTATIVES, 1994

PRESIDENT: J.R. Ringrose.

VICE-PRESIDENTS: R.A. Bailey, A.O. Morris.

TREASURER: J.D.M. Wright.

COUNCIL AND GENERAL SECRETARY: R.Y. Sharp.

MEETINGS AND MEMBERSHIP SECRETARY: D.J. Collins.

PUBLICATIONS SECRETARY: D.A. Brannan.

LIBRARIAN: J.A. Erdos.

MEMBERS-AT-LARGE OF COUNCIL: K.A. Brown, F.H.J. Cornish, D.G. Crighton, A. Gardiner, N.J. Hitchin, W.A.Hodges, H. R. Morton, J.C. Robson, P.T. Saunders, M.J. Taylor, C.T.C. Wall, N.J. Young.

GENERAL PURPOSES COMMITTEE: President (Chairman), Council and General Secretary (Secretary), Treasurer, Meetings and Membership Secretary, Publications Secretary.

FINANCE COMMITTEE: Treasurer (Convenor), President, Publications Secretary, D.J. Collins, A.O. Morris, R.Y. Sharp.

PROGRAMME COMMITTEE: President (Chairman), Meetings and Membership Secretary (Secretary), D.G. Crighton, N.J. Hitchin, H.R. Morton, M.J. Taylor, J.D.M. Wright, N.J. Young.

FORMER SOVIET UNION (fSU) COMMITTEE: President (Convenor), Treasurer, Publications Secretary, I. Chiswell, B. Hartley, W.A.Hodges.

PERSONNEL AND OFFICE MANAGEMENT COMMITTEE: J.R. Ringrose (Chairman) (93-94), R.A. Bailey (93-96), W.A. Hodges (93-96). **1994**

PRIZES COMMITTEE: J. R. Ringrose (Convenor), N.J. Hitchin, J.T. Stuart, M.J. Taylor, C.T.C. Wall.

PUBLICATIONS COMMITTEE: Publications Secretary (Convenor), Deputy Publications Secretary (N. Blackburn), Joint Editors of Bulletin, Journal, and Proceedings, LMS-nominated Editor of Nonlinearity, Book Reviews Editor, H.G. Dales (Books), M.J. Taylor (Council).

DURHAM SYMPOSIA COMMITTEE: N.J. Young (Chairman) (92-96), A.J. Scholl (Secretary, ex-officio), N.J. Hitchin (Council), C.T.H. Baker (92-96), M.B. Green (93-97), P.M. Neumann (90-94), B.D. Sleeman (94-98).

EDUCATION COMMITTEE: J.C. Robson (Chairman) (90-96), T. Porter (Secretary) (90-95), A.D. Barnard (94-98), J.W. Bruce (92-96), S.J. Burns (90- 98), A.R. Camina (90-94), S.A. Huggett (92-96), G.D. James (93-97), A.C. McBride (92-96).

COMPUTER SCIENCE COMMITTEE: W.A. Hodges (Chairman) (90-94), L.A.Wallen (Secretary) (91-95), R. Dyckhoff (92-96), U. Martin (91-95), C.J. Mitchell (94-98), A.M. Pitts (94-98), N.M. Stephens (90-94), P.Vamos (92-96).

MATHEMATICS FUNDING COMMITTEE: A.O. Morris (93-97) (Chairman), H.G. Dales (90- 94), P.P.G. Dyke (92-96), M. Everett (92-96), J.M.Howie (90-94), P.T. Saunders (93-95), M.J. Sewell (90-94), R. Sibson (93-96), B.D. Sleeman (90-94), P. Vamos (90-94).

BOARD OF LONDON MATHEMATICAL SOCIETY PUBLISHING LIMITED: J.R. Ringrose (Chairman), D.A. Brannan, D.J. Collins, J.D.M. Wright.

LIBRARY COMMITTEE: Librarian, J.J. Gray (94-97).

EUROPEAN MATHEMATICAL SOCIETY COUNCIL: E.C. Lance (90-95), C.J. Mulvey (90-97), P.T. Saunders (94-97).

BRITISH MATHEMATICAL COLLOQUIUM COMMITTEE: President, Meetings and Membership Secretary.

JOINT MATHEMATICAL COUNCIL: J.C. Robson (91-95).

JOINT MATHEMATICAL COUNCIL, HIGHER EDUCATION SECTION: A.O. Morris (93-97) (alternate: J.C. Robson).

ROYAL SOCIETY MATHEMATICS CURRICULUM SUBCOMMITTEE: J.W. Bruce (92-94), A. Gardiner (92-94).

ROYAL SOCIETY MATHEMATICS INSTRUCTION SUBCOMMITTEE: A.F. Beardon (92-96).

ISAAC NEWTON INSTITUTE MANAGEMENT COMMITTEE: J.D.M. Wright (91-94).

ISAAC NEWTON INSTITUTE SCIENTIFIC COMMITTEE: J. M. Ball (alternate J. F. Toland) (91-95), C.T.C. Wall (91-97)

EDINBURGH INTERNATIONAL CENTRE FOR MATH. SCIENCES STEERING COMMITTEE: J.R. Ringrose (93-94).

EDINBURGH INTERNATIONAL CENTRE FOR MATH. SCIENCES PROGRAMME COMMITTEE: J.H. Coates (91-96), S.K. Donaldson (91-96).

BRITISH ASS. FOR THE ADVANCEMENT OF SCIENCE, MATH. COMMITTEE: S.A. Huggett (92-96).

UNDERGRADUATE MATHEMATICS TEACHING COMMITTEE: A.R. Camina (92-96).

NATIONAL COMMITTEE FOR MATHEMATICAL CONTESTS: A. Gardiner.

BRITISH MATHEMATICAL OLYMPIAD COMMITTEE: A.R. Camina, P.M.-K. Shiu.

SAVE BRITISH SCIENCE EXECUTIVE COMMITTEE: P.T. Saunders (91-95).

SCIENCE, TECHNOLOGY, ENGINEERING, MEDICINE PUBLIC RELATIONS ASSOCIATION: P.T. Saunders.

COMMITTEE ON RESEARCH AND EDUCATION IN THE APPLICATION OF MATHEMATICS: F.H.J. Cornish (92-96), B.D. Sleeman (90-94), A.B. Tayler (90-94).

ICIAM '99 PLANNING COMMITTEE: B.D. Sleeman.

TRUSTEE, APPLIED PROBABILITY TRUST: Sir John Kingman (93-97).

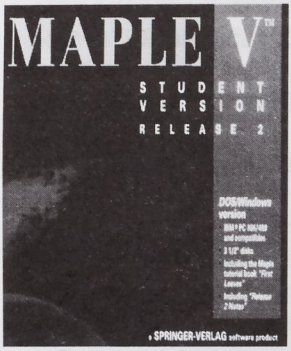
WARWICK MATHEMATICS RESEARCH CENTRE, ADVISORY BOARD: C.T.C. Wall (01.11.92 - 30.09.95).

COLLINGWOOD PRIZE COMMITTEE: A.J. Scholl.

R.Y. Sharp
Council and General Secretary

MAPLE V

The beginner´s software package with the same functionality as the professional version!



DOS/Windows

1993. Diskettes, manual with approx. 50 pp. + Char et al., First Leaves. DM 172,-* ISBN 3-540-14211-8

Hardware requirements for the DOS/Windows version: 80386 or 80486 (coprocessor optional but recommended), 3 MB (DOS), 4 MB (Windows) extended memory, 10 MB disk space, MS- or PC-DOS 5.0 or higher, MS Windows 3.1.

Coming soon:

Macintosh

1993. Diskette, manual with approx. 50 pp. + Char et al., First Leaves DM 172,-* ISBN 3-540-14209-6

Hardware requirements for the Macintosh version: runs on all Macintosh systems with system 6.0.7 or higher, 2 MB memory, 4 MB disk space, System 7.0 compatible

*These prices are suggested retail prices plus 15% VAT in Germany. In other EC countries plus local VAT.

Prices are subject to change without notice. In EC countries the local VAT is effective.
For information on prices in Austrian schillings and Swiss francs please consult the German book directory "VLB - Verzeichnis lieferbarer Bücher" or our general catalogue.

The broad view

A. Heck

Introduction to Maple

1993. XII, 497 pp. 21 figs. Hardcover DM 68.00
ISBN 3-540-97662-0

Introduction to Maple is not only a readable manual, explaining how to use Maple as a symbolic calculator, but also provides the necessary background to those who want to extend the built-in knowledge of Maple by implementing new algorithms.

The indispensable reference

D. Redfern

The Maple Handbook

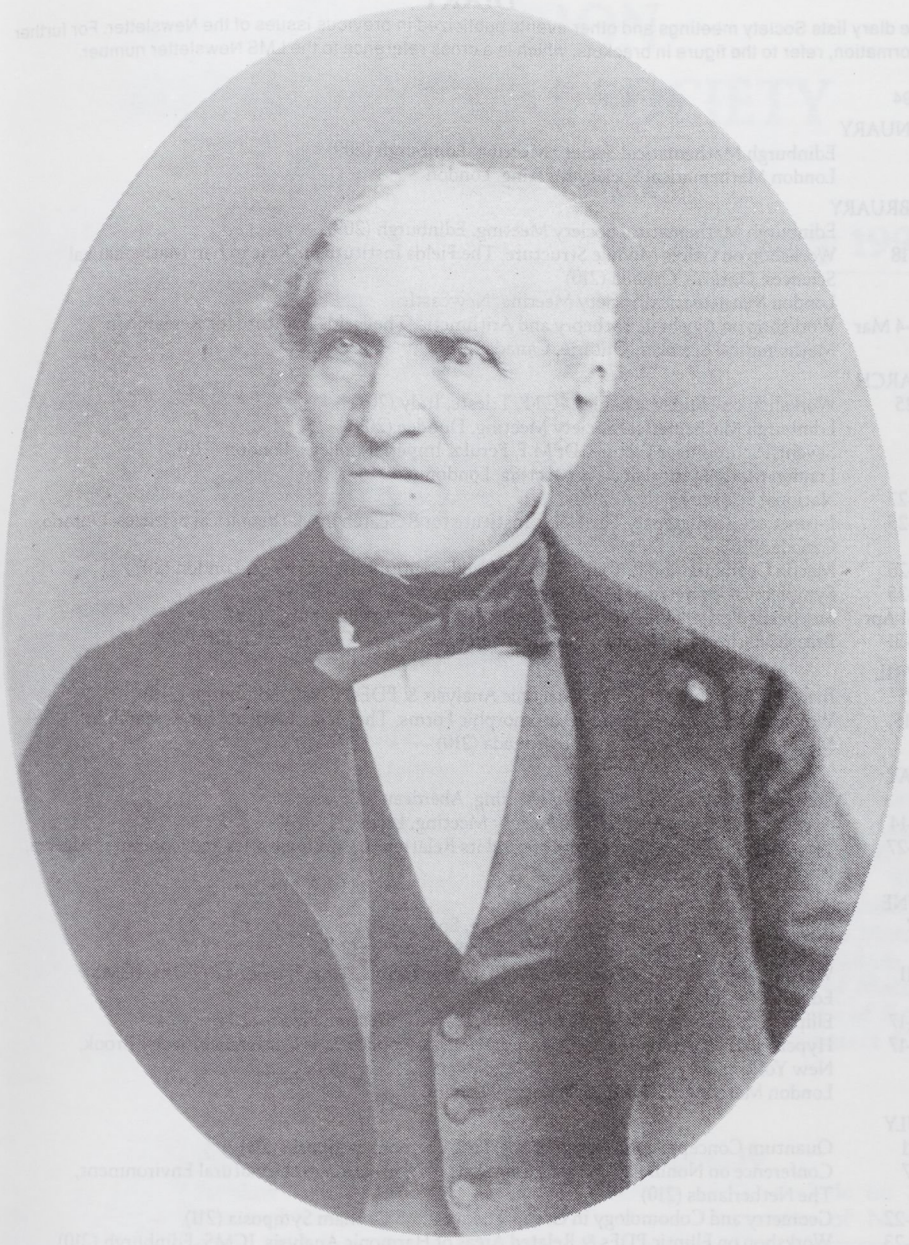
1993. Approx. 400 pp. Soft Spiral DM 48.00
ISBN 3-540-94054-5

The Maple Handbook is an essential reference tool for all users of the Maple system. It provides a complete listing of every command in the Maple language, categorized into logical categories (e.g., calculus, algebra, programming, etc.) and explained in the context of those categories.

Springer

d&p.1305.MNT/E/1

Springer-Verlag ☐ Heidelberger Platz 3, D-14197 Berlin , F.R. Germany ☐ 175 Fifth Ave., New York, NY 10010, USA ☐ 8 Alexandra Rd., London SW 19 7JZ, England ☐ 26, rue des Carmes, F-75005 Paris, France ☐ 37-3, Hongo 3-chome, Bunkyo-ku, Tokyo 113, Japan ☐ Room 701, Mirror Tower, 61 Mody Road, Tsimshatsui, Kowloon, Hong Kong ☐ Avinguda Diagonal, 468-4° C, E-08006 Barcelona, Spain ☐ Wesselényi u. 28, H-1075 Budapest, Hungary



M. CHASLES
Honorary Member 1867

DIARY

The diary lists Society meetings and other events publicized 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.

1994

JANUARY

14	Edinburgh Mathematical Society Meeting, Edinburgh (209)
21	London Mathematical Society Meeting, London

FEBRUARY

11	Edinburgh Mathematical Society Meeting, Edinburgh (209)
14-18	Workshop on Galois Module Structure, The Fields Institute for Research in Mathematical Sciences, Ontario, Canada (210)
18	London Mathematical Society Meeting, Newcastle
28-4 Mar	Workshop on Algebraic K-theory and Arithmetic, The Fields Institute for Research in Mathematical Sciences, Ontario, Canada (210)

MARCH

7-25	Workshop on Fluid Mechanics, ICTP, Trieste, Italy (207)
11	Edinburgh Mathematical Society Meeting, Dundee (209)
17	Seventh Schrödinger Lecture, Dr M.F. Perutz, Imperial College, London (210)
18	London Mathematical Society Meeting, London
18-27	National Science Festival (210)
21-25	L-functions Conference, The Fields Institute for Research in Mathematical Sciences, Ontario, Canada (210)
21-25	Matrix Geometry and Physics, LMS Invited Lectures, King's College, London (207)
21-25	Symplectic Geometry of Moduli Spaces Conference, France (209)
21-1 Apr	Stochastic Partial Differential Equations, University of Edinburgh (210)
28-31	British Mathematical Colloquium, University of Wales, College of Cardiff (210)

APRIL

5-15	Instructional Conference on Harmonic Analysis & PDEs, ICMS, Edinburgh (210)
11-15	Workshop on L-functions and Automorphic Forms, The Fields Institute for Research in Mathematical Sciences, Ontario, Canada (210)

MAY

6	Edinburgh Mathematical Society Meeting, Aberdeen (209)
13-14	Two-day London Mathematical Society Meeting, Leeds
16-27	Workshop on Commutative Algebra and its Relation to Combinatorics and Computer Algebra, ICTP, Trieste, Italy (207)

JUNE

1-7	Algebraic Topology Conference, Barcelona, Spain (201)
4	Edinburgh Mathematical Society Meeting, St Andrews (209)
5-11	Workshop on Harmonic Analysis, Oscillatory Integrals & Applications to PDEs, ICMS, Edinburgh (210)
13-17	Elliptic & Parabolic Problems Conference, Pont-a-Mousson, France (204)
13-17	Hyperbolic Problems - Theory, Computations & Applications Conference, Stony Brook, New York, U.S.A. (204)
17	London Mathematical Society Meeting, London

JULY

1-11	Quantum Concepts in Space and Time, LMS Durham Symposia (211)
4-7	Conference on Nonlinear Dynamics and Pattern Formation in the Natural Environment, The Netherlands (210)
12-22	Geometry and Cohomology in Group Theory, LMS Durham Symposia (211)
17-23	Workshop on Elliptic PDEs & Related Areas of Harmonic Analysis, ICMS, Edinburgh (210)
20-27	3rd Souslin Conference, Saratov, Russia (209)

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 WIV 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.bay.

Printed by Boyatt Wood Press, Southampton (0703) 333132
The London Mathematical Society is registered with the Charity Commissioners.