THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

FORTHCOMING SOCIETY MEETINGS

Friday-Saturday 10-11 May 1996, University of Glasgow
Joint Meeting with the Edinburgh Mathematical Society
Algebra
K.R. Goodearl, G. Levitt, A. Lubotzky, C. Maclachlan, J.-E. Pin, J. Rickard

Friday 21 June 1996, Linnean Society, London
C.J. Bushnell, R.L. Taylor

Friday 18 October 1996, Linnean Society, London
Cayley-Sylvester Centenary Meeting on Invariant Theory
W.P. Barth, C. de Concini, F.C. Kirwan, R. Howe

Friday 15 November 1996, Linnean Society, London
Annual General Meeting
E. Witten, N.J. Hitchin (Presidential Address)

SCAA AND THE MATHEMATICS PROBLEM

In the January Newsletter, Peter Saunders reported on some educational news connected with the recent LMS/IMA/RSS report 'Tackling the Mathematics Problem'. Inevitably, he described some of the resulting, or coincidental, changes announced by SCAA, the School Curriculum and Assessment Authority. The Education Committee thought you might like some more news - but also some explanation about who, why, which, or what is SCAA! Since the LMS has just received a copy of SCAA's Corporate Plan, it is easy to tell you some basic facts. It was set up in 1993 (in succession to SEAC and NCC), and its duties include 'keeping under review all aspects of the curriculum for maintained schools and of school examinations and assessment'. (It covers only England, with a similar body (ACAC) dealing with Wales.) It has an annual budget of £48 million. It has three officers who look after mathematics, Peter Lacey, Richard Browne, and Angela Walsh; and their immediate superior is Chris Jones. The Chairman of SCAA is Sir Ron Dearing, and its Chief Executive is Nick Tate. SCAA is the body that runs the National Curriculum and the Key Stage tests, and that lays down rules and regulations re GCSE etc.

What news, then? You may well be aware of the review by Dearing of all qualifications for the 16-19 age group - thus including A-levels and GNVQs. As part of this review, SCAA set up a small group to discuss and advise what should be done about Mathematics and Science. This group has reported to SCAA and, hence, to Dearing. Whilst its report is not (yet) public, the group was more than sympathetic to the case put forward by our own report. · So it is hoped that

changes which we would consider improvements may result from Dearing's review (which should be published in March). However, the only concrete step to report is that SCAA has given a partial response to one of our report's main recommendations. Our report asked the DFEE to set up a standing committee for mathematics - SCAA has announced that SCAA is setting up a (standing) committee for mathematics and science. Whilst this may be useful, it has the drawback that SCAA has no authority over teacher training (covered by the Teacher Training Agency - TTA) nor over standards of teaching (covered by the Office for Standards in Education - OFSTED) nor over vocational qualifications (covered by the National Council for Vocational Qualifications - NCVQ). It also has the drawback that the members of the new group have been appointed simply by the invitation of the chief executive. The only HE mathematician involved is Chris Robson, of Leeds.

The LMS is still trying to persuade the government that more action is needed. It met with Sir Ron Dearing late in February to press the case, but those representing us (described by Dearing as 'a stroppy lot') are not optimistic. Efforts will continue.

J.C. Robson
Chairman
LMS Education Committee

DEPARTMENTAL NEWS

Queen Mary & Westfield College Dr P.A. Glendinning (Cambridge) has been appointed to a Professorship. Dr Boris Khoruzhenko has been appointed as a temporary Lecturer in Probability and Statistics from January 1996 until 31st August 1997.

Reading University Professor John Wright, formerly Deputy Director of the Isaac Newton Institute for Mathematical Sciences, returned from Cambridge to his chair in Reading on 24 March but will continue to assist the Newton Institute in various ways. In recognition of this role he will be a Senior Visiting Fellow.

THE 1997 NAYLOR PRIZE AND LECTURESHIP IN APPLIED MATHEMATICS

In connection with the award of the 1997 Naylor Prize and Lectureship in Applied Mathematics, the Council of the Society has appointed N.J. Hitchin, R.A. Bailey, J.M. Ball, J. Brindley and J.T. Stuart to a Naylor Prize Committee.

The Council invites members of the Society to submit their views on possible candidates for the award of the Naylor Prize confidentially in writing to any member of the Naylor Prize Committee by 1 June 1996. Nominations should contain explicit reference to the grounds on which the nomination is based, and should be accompanied by a brief curriculum vitae, a list of publications, and a brief supporting case. Council reserves the right not to make an award in the event that no candidate of sufficient merit is recommended by the Naylor Prize Committee.

The Naylor Prize and Lectureship is awarded in recognition of work in, and influence on, and contributions to applied mathematics and/or the applications of mathematics, and lecturing gifts; the regulations require that it shall be awarded to a mathematician who on 1 January 1997 is normally resident in the United Kingdom of Great Britain and Northern Ireland.

No person may be awarded the Naylor Prize within twelve months of being awarded the De Morgan Medal, the Polya Prize, the Senior Berwick Prize or the Senior Whitehead Prize. No person may be awarded the Naylor Prize more than once, and the President of the Society and the members of the present Naylor Prize Committee are ineligible for the award of the 1997 Naylor Prize. The detailed regulations and procedure for the award of the Naylor Prize can be obtained from the Administrator, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL.

R.Y. Sharp
Council and General Secretary

LONDON MATHEMATICAL SOCIETY
and
EDINBURGH MATHEMATICAL SOCIETY

Joint Two-Day Meeting
Friday-Saturday 10-11 May 1996
University of Glasgow

ALGEBRA

Friday

2.30-3.30	J.-E. Pin (Paris) *Automata, finite semigroups and the Hall topology for the free group*
3.30-4.00	Tea
4.00-4.10	LMS meeting
4.10-5.10	C. Maclachlan (Aberdeen) *Bianchi groups and quadratic forms*
5.20-6.20	A. Lubotzky (Jerusalem) *Subgroup growth: the gap problem*

Saturday

9.15-10.15	K.R. Goodearl(California) *Some geometric aspects of quantum coordinate rings*
10.15-10.50	Coffee
10.50-11.50	J. Rickard (Bristol) *Infinite-dimensional representations of finite groups*
12.00-1.00	G. Levitt (Toulouse) *Elements of finite order in $GL(n,Z)$ and the dynamics of free group automorphisms*

Lectures will be held in the Mathematics Department, University Gardens, University of Glasgow

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A dinner will be held at the Creme de la Creme Indian Restaurant (both Indian and traditional buffet) at 7.00pm on the Friday evening, at a cost of £10.00 per head, not including drinks. Those wishing to attend should inform the Secretary, Edinburgh Mathematical Society, Room 4618, James Clerk Maxwell Building, Mayfield Road, Edinburgh EH9 3JZ, enclosing a cheque payable to "The Edinburgh Mathematical Society", to arrive no later than Wednesday 1st May.

C.T.C. WALL'S 60th BIRTHDAY MEETING

To celebrate the sixtieth birthday of C.T.C. Wall, FRS, a week long meeting will be held in the Pure Mathematics Department of Liverpool University from Monday 19th to Saturday 24th August 1996. The meeting will be held with the support of the European Singularities Network; its main theme will be Real and Complex Singularities and their applications.

Scientific programme The meeting will consist of a number of invited one-hour talks, plus sessions of shorter contributions; the exact proportion will depend upon numbers.

Accommodation This will be arranged in Liverpool by the organisers at an approximate cost of £30 (Bed, Breakfast and Evening Meal) per day.

Financial arrangements It is hoped to be able to make a contribution to the cost of accommodation and living expenses for participants, though we ask all participants to make efforts to obtain funding to cover their expenses, to enable us to provide more support for younger mathematicians wishing to attend.

Arrival and departure dates Participants are invited to arrive on Sunday 18th August; the scientific part of the meeting will take place from Monday 19th to Friday August 23rd, and we hope to organise a day-trip to the Lake District to end the meeting, on Saturday 24th August.

Scientific committee Jean-Paul Brasselet (Luminy), Gert-Martin Greuel (Kaiserslautern), Ignacio Luengo (Madrid), Andrew du Plessis (Aarhus), Joseph Steenbrink (Nijmegen), Duco van Straten (Duesseldorf), Bernard Teissier (ENS, Paris), Vladimir Zakalyukin (Moscow).

For further information Contact any member of the organising committee: Bill Bruce (jwbruce@liverpool.ac.uk); David Mond (mond@maths.warwick.ac.uk); Dirk Siersma (siersma@math.ruu.nl).

COMBINATORICS COLLOQUIUM IN HONOUR OF PROFESSOR C.ST.J.A. NASH-WILLIAMS

There will be a 2-day Combinatorics Colloquium at The University of Reading on Wednesday 15th and Thursday 16th May 1996 to honour Professor C.St.J.A. Nash-Williams, who will be taking early retirement in September 1996. The lectures will be held in Room G10 in the Palmer Building. They will start at about 10 am on Wednesday and finish at about 5 pm on Thursday. The main speakers will be: R. Aharoni (Technion), N.L. Biggs (LSE), B. Bollobas (Cambridge and Memphis), J.A. Bondy (Lyons), P.J. Cameron (QMW), W. Jackson (Goldsmiths), N. Robertson (Ohio State), C.A. Rodger (Auburn, Alabama), C. Thomasson (Copenhagen), W.T. Tutte FRS (Waterloo), D.J.A. Welsh (Oxford), D. Woodall (Nottingham). A detailed programme with titles and abstracts will be available later.

A dinner will be held in the Blue Room, 7.00 pm for 7.30 pm, dress informal. The cost will be £25, and this will include drinks before and with the meal. The bar will be open after the meal. Those wishing to attend the dinner should send a cheque made payable to The University of Reading by 26 April to Dr J.K. Dugdale, Department of Mathematics, The University of Reading, Whiteknights, Reading RG6 6AF, from whom further details may be obtained. For those wishing to stay overnight a comprehensive list of bed and breakfasts, and hotels may be obtained from Dr Dugdale. It being term time, there is almost no accommodation available at the University, but there are several hotels nearby at various price levels; those needing accommodation should make their own arrangements with the aid of the list.

I would like to acknowledge with considerable thanks the financial support given by the LMS and by the British Combinatorics Committee. All are welcome to attend the lectures or to come to the dinner.

A.J.W. Hilton

LONDON MATHEMATICAL SOCIETY LECTURE NOTES

The LMS Lecture Notes are published jointly by the Society and Cambridge University Press. Most volumes are short monographs giving an authoritative account of the present state of knowledge on a topic of general interest. The Series also accepts conference proceedings and other collective works with similar aims. In general the Series is relaxed and informal, but places importance on quality of exposition. To date more than 200 volumes have appeared. The current editor is Professor J.W.S. Cassels, who is assisted by Dr Graham Allan, Professor Paul Cohn, Professor Nigel Hitchin, Dr Martin Hyland and Dr Charles Thomas.

J.W.S. Cassels

SPRINGER INTERNATIONAL "YELLOW SALE"

Already a regular event in the USA, Springer-Verlag is now holding its first international Yellow Sale. This will be available in all countries except Germany, Austria, Switzerland and North America. For two months only, from the end of March to 31st May 1996, Springer are slashing prices on a selection of some 130 tried-and-tested titles across the whole spectrum of Mathematics. Because of the high price reductions (mostly 50% off), Springer anticipate heavy demand for many titles and therefore recommend that customers order as soon as possible to avoid disappointment when titles are out of stock. PLEASE NOTE: orders will be shipped on a strictly "first-come first-served" basis. It will not be possible to reserve books at the publishers.

The complete Yellow Sale catalogue will be available in participating book shops from 31st March 1996 onwards, complete with details of how to order. If there is no participating bookshop in your area you can also order the catalogue, or the books themselves directly from Springer: Springer-Verlag London Ltd., Sweetapple House, Catteshall Road, Godalming, Surrey GU7 3DJ; tel: 01483-418800; fax: 01483 - 415144; e-mail: postmaster@svl.co.uk. Alternatively, the Yellow Sale catalogue may also be downloaded by ftp: ftp.springer.de; directory:/pub/yellowsale. Complete details of the Yellow Sale are also available via the World Wide Web, where you will find more detailed information on each of the titles offered (http://www.springer.de/whatsnew/yellowsale.html).

THE DYNAMICS OF COMPLEX FLUIDS

The Royal Society-Unilever Indo-UK Forum on The Dynamics of Complex Fluids, in association with the Programme at the Isaac Newton Institute for Mathematical Sciences and with the support of the Tata Trust, will be held at the Cavendish Laboratory, Cambridge, 24 - 28 June 1996. The aim of the meeting is to bring together the various themes of the 6 month Programme on complex fluids to be held at the Newton Institute. It will consider current status and future directions in predicting the behaviour of complex fluids in viscometric and non-viscometric flows. Session topics will include continuum simulation of viscoelastic and viscoplastic fluid flows, mesoscopic simulation of particulate, polymeric and self-assembled systems and experimental procedures for characterising microstructural evolution in simple flows and the fields for complex flows. Invited lectures, contributed posters and workshops will be included in the programme, which is intended to provide extensive sessions for discussion. A reduced registration fee and a limited number of bursaries will be available for research students and postdoctoral workers. For further information please contact: Mrs M.A. Staff, Polymers and Colloids Group, Cavendish Laboratory, Madingley Road, Cambridge, CB3 OHE; tel: 01223 337007; fax: 01223 337000.

OSTROWSKI PRIZE TO ANDREW WILES

The Ostrowski Prize for 1995 is awarded to Andrew Wiles of Princeton University for his outstanding work on modular forms and elliptic curves, which led to the final solution of Fermat's problem on the non-existence of integer solutions to any equation $x^n + y^n = z^n$, when n is greater than two.

The Ostrowski Foundation was created by the mathematician Alexander M. Ostrowski, for many years professor at the University of Basel, who left his entire estate to the Foundation, stipulating that the proceedings should provide a prize for outstanding achievements in mathematics. The prize is awarded every second year, and is currently set at 50.000 Swiss Francs. Former recipients include Louis de Branges (1989), Jean Bourgain (1991), Miklos Laczkovich (1993), and Marina Radner (1993). The Jury for the Prize consists of representatives from the Universities of Basel, Jerusalem, and Waterloo and the Academies of Amsterdam and Denmark. The prize ceremony will take place in Copenhagen in the Spring of 1996.

EUROPROJ 96

The 1996 Annual Conference of Europroj will be held at the University of Liverpool from 11 to 16 September 1996 with support from the European Union and the London Mathematical Society. Europroj 96 aims to present some of the best recent work in algebraic geometry. Young researchers (both postdoctoral and postgraduate) are particularly welcome and funds are available to support a substantial number. The programme committee is chaired by S.K. Donaldson (Oxford), the other members being W. Barth (Erlangen), I. Dolgachev (Michigan) and M.S. Narasimhan (ICTP). Invited speakers will include L. Caporaso (Harvard), A. Corti (Chicago), L. Goèttsche (Pisa), C. Peskine (Paris), Z. Ran (Durham) and G. Tian (MIT). Further talks will be selected on the basis of a call for abstracts (deadline 15 April).

The deadline for applications for financial support is 1 June, and for registration 31 July. Further information is available by e-mail (su03@liv.ac.uk) or by writing to Dr P.E. Newstead (EP96), Department of Mathematical Sciences, The University of Liverpool, PO Box 147, Liverpool, L69 3BX, UK; tel (direct line) 0151 794 4040; department: 0151 794 4043; fax (department) 0151 794 4061; e-mail: newstead@liverpool.ac.uk.

MATHEMATICS APPLIED TO BIOLOGY AND MEDICINE
### 3rd European Conference

The 3rd European Conference on Mathematics Applied to Biology and Medicine will be held in Heidelberg, Germany, 6 - 10 October 1996. The conference is sponsored by the European Society of Mathematical and Theoretical Biology. Sections: Biomechanics, Cell Modelling and Cell Signalling, Ecology, Epidemiology and Immunology, Evolution and Genetic Modelling, Metabolic Modelling, Modelling in Medicine and Applications, Modelling in Molecular Biology, Morphogenesis and Pattern Formation, Neuromodelling, Pathological Tissue Growth and Cancer, Physiology, Population Dynamics. Further information can be obtained by e-mail (ECMBM96@iwr.uni-heidelberg.de), or on the World Wide Web (http://www.iwr.uni-heidelberg.de/ECMB96/).

VISIT OF DR N. KUZNETSOV

Dr N. Kuznetsov of the Institute of Problems of Mechanical Engineering, St Petersburg, Russia, will be visiting the UK from 23 March for two months, under the London Mathematical Society fSU Visitor Scheme. Dr Kuznetsov will be based at Loughborough University of Technology. For further information contact Dr P. McIver, tel: 01509 223197, e-mail: p.mciver@lut.ac.uk.

Undergraduate Texts in Mathematics
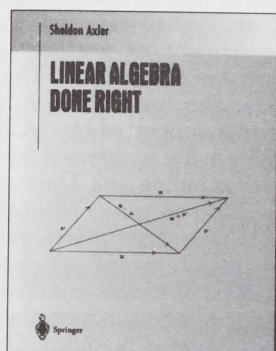
S. Axler

Linear Algebra Done Right

In softcover

1996. XVII, 238 pages.
Softcover £ 19.50   ISBN 0-387-94596-2

The approach is novel, banishing determinants to the end of the book and focusing on the central goal of linear algebra: understanding the structure of a linear map from a vector space onto itself. Though this text is intended for a second course in linear algebra – following one that focuses on matrices and computation – there are no prerequisites other than appropriate mathematical maturity. A variety of interesting exercises in each chapter helps students understand and manipulate the objects of linear algebra.

A. Browder

Mathematical Analysis

An Introduction

1996. Approx. 345 pages. 4 figures.
Hardcover £ 27.00   ISBN 0-387-94614-4

Contents: Real functions. – Sequences and series. – Continuous functions on intervals. – Differentiation. – The Riemann integral. – Topology. – Function spaces. – Differentiable maps. – Measures. – Integration. – Manifolds. – Multilinear algebra. – Differential forms. – Integration on manifolds.

S. N. Elaydi

Introduction to Difference Equations

1996. Approx. 380 pages. 80 figures.
Hardcover £ 32.00
ISBN 0-387-94582-2

This book combines both analytic and geometric (topological) approaches to studying difference equations. It integrates both classical and modern treatment of the subject.
The most updated and comprehensive material in stability, z-transform, discrete control theory, and asymptotic theory.

G. Exner

An Accompaniment to Higher Mathematics

1996. Approx. 225 pages. 7 figures.
Hardcover £ 22.50
ISBN 0-387-94617-9

Intended for use as a supplementary text in courses on introductory real analysis, advanced calculus, abstract algebra, or topology, the book teaches in detail how to construct examples and non-examples to help understand a new theorem or definition. It shows how to discover the outline of a proof in the form of the theorem and how logical structures determine the forms that proofs may take.

Prices subject to change without notice. In EU countries the local VAT is effective.

Springer

DIOPHANTINE ANALYSIS AND ITS APPLICATIONS

The Institute of Mathematics of the Belarus Academy of Sciences is holding an international Mathematical Conference on *Diophantine Analysis and its Applications* in Minsk, 2-6 September 1996. The conference is supported by the International Mathematical Union and the Belarus Academy of Sciences and is in honour of Professor Vladimir Sprindzhuk (1936-1987) who would have been 60 this year.

The Organizing Committee consists of: V. Arnold (Moscow), A. Baker (Cambridge), V. Bernik (Minsk), M.M. Dodson (York), E. Kovalevskaya (Minsk), Yu. Nesterenko (Moscow), H. Schlickewei (Ulm), W. Schmidt (Colorado), R. Tijdeman (Leiden), M. Waldschmit (Jussieu).

In addition, the following have accepted invitations to speak: D. Bertrand (Jussieu, Paris), P. Cohen (IAS, France), S.G. Dani (TIFR Bombay), H. Dickinson (York), A. Galochkin (Moscow), K. Gyory (Debrecen, Hungary), Y. Jin (Xi'an, China), A.A. Karatsuba (Moscow), J. Kubilius (Vilnius, Lithuania), N. Kuznetsov (Krasnoyarsk, Russia), K. Nair (Liverpool), P. Philippon (Jussieu, Paris), A. Van der Poorten (Macquarie, Australia), A. Schinzel (Warsaw), H. Schlikewei (Ulm, Germany), A. Shidlovsky (Moscow), M. Skriganov (St. Petersburg, Russia), J. Schoissengeier (Vienna), T.N. Shorey (TIFR, Bombay), R.F. Tichy (Graz), R. Tijdeman (Leiden), R. Tubbs (Colorado), K. Vaananen (Oulu, Finland), S.L. Velani (Imperial, London), C. Viola (Pisa), M. Waldschmit (Jussieu, Paris).

A further announcement will be made in due course but in the meantime for more details please contact: Vasily Bernik, Institute of Mathematics, Belarus Academy of Sciences ul. Surganova 11, Minsk, 220072 Belarus; e-mail: imanb%imanb.belpak.minsk.by@demos.su; fax: 375(0172) 39-31-92 or Maurice Dodson, Department of Mathematics, University of York, York YO1 5DD; tel: 01904-433098; fax: 01904-433071; e-mail: mmd1@york.ac.uk.

AEGEAN CONFERENCE ON OPERATOR ALGEBRAS AND APPLICATIONS

The above meeting will be held on the island of Samos, Greece between the 18th and the 28th of August 1996. Samos is the birthplace of Pythagoras and the site of the Department of Mathematics of the University of the Aegean. The meeting will have the form of an Advanced Study Institute supported by NATO, and will be additionally supported by Greek Universities including the University of the Aegean and the University of Athens.

The main themes of the Conference include: Non-self-adjoint operator algebras; Multivariable operator theory and representations of function algebras; Hilbert and operator modules; Operator spaces and applications to Banach space theory and harmonic analysis; C^*-algebraic quantum groups; Operator algebras and wavelets. The main speakers are: W. Arveson, D. Blecher, K. Davidson, E. Effros, J. Erdos, A. Katavolos, E. Katsoulis, C. Lance, D. Larson, P. Muhly, V. Paulsen, G. Pisier, S. Power, B. Solel, E. Stormer. In addition, shorter talks will be given by participants.

Partial financial assistance is available for participants who have no other source of funding, particularly graduate students and postdoctoral workers. The organising committee is: M. Anoussis (Aegean), J. Erdos (King's, London), N. Hadjisavvas (Aegean), A. Katavolos (Athens), P. Muhly (Iowa), For registration, please apply by e-mail (opalgr@athena.aegean.ariadne-t.gr) or by ordinary mail to Professor A. Katavolos, Department of Mathematics, University of Athens, 157 84 Athens, Greece. Because the number of participants will have to be limited, you are advised to apply as soon as possible. Applications should include name, full postal address, telephone, fax and/or e-mail, nationality, academic position, institution and date of PhD and current research interests. State if you wish to be considered for financial assistance. If you wish to be considered for a 20 - 30 minute

talk, please supply title and short abstract. Your application will be acknowledged and you will be sent an accommodation and travel form. This will need to be returned by 20 April since after that day the organisers cannot guarantee accommodation. The conference has an information page on the WWW (http://www.mth. kcl.ac.uk/opalg.html). Further information can be obtained from J. Erdos, Department of Mathematics, King's College, Strand, London WC2R 2LS; tel: 0171 873 2225; fax: 0171 873 2017.

GRID ADAPTATION IN COMPUTATIONAL PDEs Theory and Applications

This conference is being organised by the International Centre for Mathematical Sciences, Edinburgh, from 1-5 July 1996, with the aim of bringing together theoreticians and practitioners in the field of grid adaptation in PDEs to present and discuss new results and trends. The main speakers will include: M. Baines (UK), R. Bank (USA), M. Berzins (UK), J. Flaherty (USA), L. Formaggia (Italy), C. Johnson (USA), K. Morgan (UK), J.T. Oden (USA), R. Russell (Canada), J. Verwer (Netherlands), N. Weatherill (UK). The organisers are seeking contributed papers for the meeting in all areas of the analysis and application of adaptive grid techniques for PDEs.

The first day of the meeting will consist of expository seminars given by some of the main speakers, followed by a series of invited and contributed sessions during the rest of the week. A separate registration fee will be charged for those who only want to attend the first day. Those interested in finite element methods might want to combine participation at our meeting with attendance at the Mafelap meeting, to be held the week before at Brunel University, near London.

You can find out more about the conference and the ICMS and get on the mailing list via WWW page: http://www.ma.hw.ac.uk/icms/apde/ or e-mail: D.B.Duncan@ma.hw.ac.uk with subject line "APDE meeting". Scientific committee: M. Baines (UK), M. Berzins (UK), P. Deuflhard (Germany), J. Flaherty (USA), L. Formaggia (Italy), K. Morgan (UK), J. Verwer (Netherlands), N. Weatherill (UK).

NATO POSTDOCTORAL FELLOWSHIPS

The Royal Society acts as the UK national administrator for the NATO Science Fellowship Programme. A proportion of the Programme funds is directed towards collaboration with NATO's Cooperation Partner countries. From 1996, the Society is offering additional fellowships for young postdoctoral scientists in Cooperation Partner countries to spend one year at a UK laboratory. Cooperation Partner countries are: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Slovak Republic, Tadjikistan, Turkmenistan, Ukraine and Uzbekistan.

Candidates must be nationals of one of the above countries and must have already reached postdoctoral (or equivalent) status. The scheme carries an upper age limit of 40. (Exceptions may he made for applicants who are over 40, but who have only recently received their PhDs.) Fellowships are for research in the natural sciences, including mathematics, engineering, non-clinical medical research and the scientific research aspects of psychology, archaeology, geography, agriculture and the history of science

The programme is generously supported by NATO. Fellowship holders receive an award which covers living costs in the UK, together with a contribution towards the international air-fare, research expenses and subsidiary visits.

Closing dates for applications: 15 April and 15 September annually. Application forms can be obtained from the International Exchanges Section, Royal Society, 6 Carlton House Terrace, London, SWIY 5AG (quoting Ref: SGK/IS/NATO). Tel: 0171 839 5561 x 2561; fax: 0171 925 2620; e-mail: ezmb016@ulcc.ac.uk.

NORTH BRITISH FUNCTIONAL ANALYSIS SEMINAR

A meeting of the North British Functional Analysis Seminar will be held at George Square of the University of Edinburgh from 2.30 pm on Monday 27th May until noon on Tuesday 28th May 1996. The speakers will be Dr Ken J. Dykema (Odense) on Monday and Professor V. Vasyunin (Steklov) on Tuesday. All interested are welcome to attend. For further information please contact Dr G. Blower, NBFAS Secretary, tel: 01524-593962, e-mail: maa008@uk.ac.lancs.cent1.

GROUPS IN GALWAY

The Groups in Galway conference this year will be held on Friday and Saturday 17 and 18 May 1996. Speakers will include S. Sehgal (Alberta), J. Pelikan (Eotvos, Budapest), S. Bachmuth (UC at Santa Barbara and QMW), D. Lewis (Dublin), G. Ellis (Galway), L.-C. Kappe (SUNY at Binghamton), W. Kappe (SUNY at Binghamton). Those interested in attending please contact: Martin Newell, Department of Mathematics, University College, Galway; e-mail: Martin.Newell@ucg.ie; fax: 00 353 91 750542.

MATHEMATICAL CAREERS BROCHURE

A few years ago the LMS Education Committee decided to try and address the problem of the apparent lack of an obvious career for mathematics graduates, as perceived by school pupils making decisions about which A levels or degrees to study. Last September we produced a six-page A4 colour brochure with the aim of using striking graphics, simple statistics, and a variety of profiles to attract the attention of pupils, teachers and careers officers to mathematics and give an impression of the wide variety of potential careers for mathematics graduates. We mailed three copies to the Head of Mathematics in every UK secondary school in October and six copies to every Head of University Mathematics Department in November.

The response from schools has been encouraging and we have sold some more to some schools and colleges (at 50p each). Have your children's mathematics teachers seen one? Has the Admissions Tutor in your Department? Note that two brochures can be used to make a poster. In addition, we have just mailed two copies to each Careers Office and Mathematics Teachers Centre.

We have also produced a black-and-white version of the brochure (as a four-page A5 leaflet), which UK LMS members will find enclosed with this Newsletter. This is much cheaper, and (thanks to Tony Gardiner) 25,000 copies have gone to the 1550 schools taking part in the 1996 UK Intermediate Mathematical Challenge for distribution to all Silver and Gold certificate winners, with spare copies for the teachers' own use.

Meanwhile, David Brannan has persuaded the Open University to make a 25-minute TV programme with the same aim as our brochure. It is planned to be complete in March 1997. So, we are addressing the problem, at least. Please help us by, for example, checking whenever you visit a school that it has received and is making use of its copies.

Stephen Huggett
Secretary, LMS Education Committee

VISIT OF PROFESSOR SYLVAIN CAPPELL

Professor S. Cappell, of the Courant Institute of Mathematical Sciences at New York University, will visit the UK under Scheme 2 of the Society. He will deliver the following lectures: Monday, 29th April, 5.00 pm, Higman Room, Mathematical Institute, Oxford "Topology, symplectic geometry and lattice summation" (local organizer: Dr J. Roe); Monday, 6th May, 3.30 pm, Seminar Room 1, Department of Pure Mathematics and Statistics, Cambridge "Geometrical comparisons of lattice summation and integration" (local organizer: Dr C.B. Thomas); Friday, 10th May, 2.30 pm, Room 8, Appleton Tower, University of Edinburgh "Euler-MacLaurin summation in many variables and the topology of singular varieties" (local and global organizer: Professor A.A. Ranicki). The lectures are open to all members of the Society.

VISIT OF DR DIERK SCHLEICHER

Dr Dierk Schleicher, of the Technische Universität München, who works in Complex Dynamics, will be visiting Britain in April with the support of an LMS Scheme 2 grant. He will be talking at Manchester, Liverpool, Warwick and QMW London, probably on the following dates respectively: Thursday 18, Monday 22, Friday 26, Tuesday 30 April. The titles of the talks will be taken from: Internal addresses in the Mandelbrot set and Galois groups of polynomials; On the dynamics of antiholomorphic polynomials; Topology and combinatorics of postsingularly finite exponential sums; The structure of the Mandelbrot set, with applicatons to the tricorn and the parameter space of exponential maps. For further information, contact: Dr S.M. Rees (maryrees@liv.ac.uk), Dr R.M. Wood (reg@ma.man.ac.uk) Dr A.K. Manning (akm@maths.warwick.ac.uk), Dr S. Bullett (sb@qmw.ac.uk).

Houghton Mifflin including DC Heath Mathematics

Calculus:

Early Transcendental Functions
Larson/Hostetler/Edwards

Introducing trigonometric, exponential, logarithmic and inverse functions in the beginning of the text gives the student access to a rich variety of functions and applications with which to learn calculus. The text's effective problem-solving focus encourages students to employ a wide range of strategies including looking at problems from analytical, graphical and numerical approaches.
1995: 0669 393495: Hb: 1127pp: £21.95

Interactive Calculus CD Rom
Ideally suited for presenting the mathematics of change and motion, this expanded version of the text has been tailored to the computer format and includes a wealth of multimedia features, such as live editable maths, on-screen problem solving, video, animated art and sound.
0669 391190: £24.95

Calculus of A Single Variable:
**Early Transcendental Functions, 5e
by Larson/Hostetler/Edwards**
1994: 0669 393487: Chps 1-10: £18.95

Linear Algebra

Elementary Linear Algebra, 3e
Larson/Edwards

This popular uniquely motivating approach is enhanced by opportunities to incorporate technology & increased geometrical interpretation. The primary goal is to present the main ideas of linear algebra clearly & concisely.

Contents: 1. Systems of Linear Equations 2. Matrices 3. Determinants 4. Vector Spaces 5. Inner Product spaces 6. Linear Transformations 7. Eigenvalues and Eigenvectors 8. Complex Vector Spaces 9. Linear Programming 10. Numerical *Methods Appendices

0669 396419: Hb: 640pp: £17.95

Calculus with Analytic Geometry, 5e
Larson/Hostetler/Edwards

This fifth edition expands a programme famed for its effectiveness by making great strides in its incorporation of technology - frequent references to and use of graphing calculators and computer graphing utilities provide many options to use these powerful tools. The text places a strong emphasis on building calculus skills. Problem-solving encourages students to use numerical, graphical and analytical approaches. Its authors bring proven reliability and a style marked by both clarity and precision - the text features nearly 1000 titled examples and 2000 applications.
1994: 0669 353353: hb: 1127pp: £21.95

Interactive Calculus CD Rom
0669 412635: 1994: £24.95

Calculus of A Single Variable, 5e
Larson/Hostetler/Edwards
1994: 0669 352500: Chps 1-10: £18.95

Multivariable Calculus, 5e
Larson/Hostetler/Edwards
1994: 0669 393452: Chps 11-16: £13.95

Calculus: Modelling and Application
Smith/Moore
1996: 0669 327875: £21.95

Applied Calculus

Calculus Concepts: An Informal Approach, Preliminary edition
La Torre/Kenelly/Fetta
1996: 0669 398659: pb: 561pp: £14.95

Applied Calculus
Berresford
1996: 0395 708230: Hb: 704pp: £22.95

Brief Applied Calculus
Berresford
1996: 0395 708249: Hb: 608pp: £20.95

LONDON MATHEMATICAL SOCIETY
INVITED LECTURE SERIES 1996
Frederick Almgren, Princeton University
Geometric Measure Theory and the Calculus of Variations

A series of 10 lectures on the application of methods from geometric measure theory to the calculus of variations will be given by Frederick Almgren during the week 15 - 19 April 1996 at the Department of Mathematics, University College London.

It will begin with coffee at 10.00 on Monday 15 April in Room 606 on the sixth floor of the Mathematics Department/Student Union Building at 25 Gordon Street (on the corner of Gower Place and Gordon Street). The morning lecture will begin at 11:00 and the afternoon lecture at 2:00. A similar schedule is planned for the whole week, although some adjustments may be necessary.

The series will present an introduction to new techniques that have recently been developed to answer important questions in the theory of minimal surfaces. The lectures will none-the-less be accessible to research students in nearby fields; preliminary reading on the level of, e.g., F. Morgan's Geometric Measure Theory (Academic Press, Boston, MA, 1988) is highly recommended.

Tentative programme

- The shape of soap bubbles and crystals: Having fun with the calculus of variations and some important problems.

- Basics of geometric measure theory: Hausdorff and integral geometric measure, rectifiable sets, area and co-area formulas, structure theorem for sets of finite Hausdorff measure.

- Existence of energy minimizing surfaces: Currents, the deformation theorem and isoperimetric inequalities, multi-functions and approximation, the compactness theorem, parametric integrals and energy minimizing surfaces.

- Regularity theorems: (F,e,d) minimal sets, Dirichlet energy minimizing multi-functions, mass minimizing integral currents.

- Curvature driven evolutions and dendritic crystal growth - the variational approach.

- Calculus of variations in the large: homotopy groups of the integral cycle groups, integral varifolds and the existence of minimal surfaces on manifolds.

- Calibrations and calculations of minimal surfaces: Holomorphic varieties as mass minimizing integral currents, max flow/min cut algorithms for computing area minimizing surfaces.

Accommodation Accommodation, under £20 (single) room/night, is reserved in Carr Saunders Hall from 14 till 19 April 1966. If you wish to use this accommodation, please let the organizers know as soon as possible. Close to the College there is a large number of (more expensive) bed and breakfast hotels where one should be able to find accommodation even on the day of arrival.

Registration Participants who have not yet registered are requested to do so (preferably by e-mail) as soon as possible. There is no registration fee.

Contact address David Preiss, Department of Mathematics, University College London, Gower Street, London WC1E 6BT; e-mail: dp@math.ucl.ac.uk

C. JORDAN
Honorary Member 1907

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.

APRIL 1996

9-12 British Mathematical Colloquium, UMIST (231, 233 & 234)

12-14 History in Mathematics Education, St Martin's College, Lancaster (236)

15-16 Computer Algebra MathFit Instructional Workshop, University of Bath (236)

15-19 LMS Invited Lectures - Professor F.J. Almgren, University College London (228)(236)

15-3 May School on Nonlinear Functional Analysis and Applications to Differential Equations, ICTP Trieste (230)

MAY 1996

10-11 Algebra, Joint Two-Day London Mathematical Society Meeting with the Edinburgh Mathematical Society, Glasgow University

22-24 Semigroup Theory Workshop, Lisbon, Portugal (236)

31 Edinburgh Mathematical Society Meeting, Aberdeen (232)

JUNE 1996

15-19 Hyperbolic Problems, Theory, Numerics and Applications Conference, Hong Kong (233)

21 London Mathematical Society Meeting, Linnean Society, London

22 Ali Fröhlich's 80th Birthday Meeting, Robinson College, Cambridge (230)(236)

24-4 July Partial Differential Equations and Spectral Theory, LMS Durham Symposium, Durham University (232)

25-28 Ordinary and Partial Differential Equations Conference, Dundee University (234)

25-29 Geometric Issues in the Foundations of Science Symposium, St John's College, Oxford (234)

25-29 European Consortium for Mathematics in Industry Conference, Denmark (235)

26-28 Homotopy Theory Mini-Conference, Mathematical Institute, Oxford (230)(236)

30-6 July Different Approaches to Population Dynamics Conference, Crete, Greece (235)

JULY 1996

1-12 Graph Symmetry: Algebraic Methods and Applications, Université de Montréal, Québec, Canada (233)

1-13 NATO ASI, Edinburgh (233)

8-9 Finite Model Theory, MathFit Instructional Workshop, University of Wales, Swansea (236)

8-19 Galois Representations in Arithmetic Algebraic Geometry, LMS Durham Symposium, Durham University (232)

13-20 Edinburgh Mathematical Society's St Andrews Colloquium 1996, University of St Andrews (233)

14-19 Computational Techniques in Spectral Theory and Related Topics Workshop, Gregynog Hall, University of Wales (230)

18-20 Croatian Mathematical Congress, Zagreb, Croatia (233)

18-20 Analytic and Elementary Number Theory Conference, Vienna, Austria (233)

19-21 Mathematical Models of Concurrency, Communication and Distribution, MathFit Instructional Workshop, Kent University (236)

21-25 Affine Geometry of Convex Sets Conference, Dalhousie University, Canada (232)

22-26 2nd European Congress of Mathematics, Budapest, Hungary (235)

21-1 Aug Model Theory of Fields, LMS Durham Symposium, Durham University (232)

28-3 Aug Brazilian Algebra Meeting, IMPA, Rio de Janeiro, Brazil (233)

AUGUST 1996

1-13 Nonstandard Analysis and its Applications Symposium, Edinburgh University (233)

12-30 School on Algebraic Groups & Arithmetic Groups, ICTP Trieste (230)