THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No.157 **January 1989**

FORTHCOMING SOCIETY MEETINGS

Friday 20 January 1989, Burlington House
D.G Crighton, F.G. Leppington

Friday 17 February 1989, Warwick
M. Pollicott, J.-C. Yoccoz
Friday 17 March 1989, Scientific Societies Lecture Theatre
Thursday, Friday 18-19 May 1989, Liverpool
Representations of Algebras
Friday 16 June 1989, Burlington House
Friday 20 October 1989, Burlington House
Friday 17 November 1989, Royal Society

TREASURER'S REPORT TO ANNUAL GENERAL MEETING 1988

The stockmarket crash of October 1987, referred to in last year's report, is reflected in this year's audited accounts, which cover the twelve months up to the end of August 1988. We have continued a policy of keeping substantial cash reserves, earning high rates of interest. So that, although we suffered some painful losses on the equity market, the General Fund has increased by £207K.

The new journal, 'Nonlinearity', (a joint venture between LMS Publishing Ltd and Institute of Physics Publishing Ltd) has already shown itself to be highly successful academically. It is a substantial financial commitment on which we must expect to spend money for some years before 'Nonlinearity' moves into profit. The printing reserve has been increased by £80K.

The Society depends heavily on its publications revenue. Most of our bills have to be paid in sterling but much of our publications revenue comes from overseas subscriptions in dollars. A substantial fall in the value of the dollar could make our publications activities loss making. However, because of our high liquidity policy, we would not have to make any forced sale of assets while prices are low.

Mr Vernon Naylor, the founder of the Naylor Prize, has been a most generous benefactor to the Society on a number of occasions. As recorded in the Newsletter, he presented the Society with a facsimile of the Domesday Book. This is a valuable and fascinating gift which many members will already have had the opportunity of inspecting. I would like to record the Society's thanks to him for his many acts of generosity.

J D M Wright
Honorary Treasurer

ELECTRONIC MAIL

Some members have expressed disappointment that the 1989 List of Members will not contain electronic mail addresses. The Society's Council has agreed to the establishment of a database containing information, including electronic mail address, on all mathematicians in university departments and to expand the database to include mathematicians in polytechnics once experience in the task has been gained. It is intended that an e-mail directory of UK mathematicians will be produced when sufficient progress has been made in establishing the database.

A. R. Pears
Meetings and Membership Secretary

LONDON MATHEMATICAL SOCIETY

Council, Committees and Representatives, 1989

PRESIDENT:	J.H. Coates.
VICE-PRESIDENTS:	E.C. Lance, R.L.E. Schwarzenberger.
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EUROMATH COORDINATING COMMITTEE:	P. Vamos (87-91).
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ROYAL SOCIETY/IMA ICMI SUBCOMMITTEE:	N.L. Biggs (89-92).
BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, MATHEMATICS COMMITTEE:	N.H. Bingham (86-91).
NOTTINGHAM CONFERENCES ORGANISING COMMITTEE:	J.M. Howie (83-92).
SAVE BRITISH SCIENCE EXECUTIVE COMMITTEE:	E.C. Zeeman (88-92).
SCIENCE MUSEUM MATHEMATICS ADVISORY PANEL:	N.L. Biggs (88-92), J.J. Gray (88-92), P. Holgate (88-92), J.M. Jagger (88-92), I.R. Porteous (88-92).
TRUSTEE, APPLIED PROBABILITY TRUST:	R.A. Bailey (88-92).
WARWICK MATHEMATICS RESEARCH CENTRE, ADVISORY BOARD:	K.W. Gruenberg (1st October 87 - 30th September 90).
COLLINGWOOD PRIZE COMMITTEE:	P.J Higgins.
HARDY JUNIOR RESEARCH FELLOWSHIP COMMITTEE, 1989:	J.H. Coates.

C.J. Mulvey
Council and General Secretary

LONDON MATHEMATICAL SOCIETY

D.G. Crighton (Cambridge)
NONLINEAR WAVES IN DISSIPATIVE MEDIA

F.G. Leppington (London)
SOUND

FRIDAY 20 JANUARY 1989
at 3.30 p.m.

The meeting is at the Geological Society, Burlington House, Piccadilly, London W1

All interested are very welcome
Tea will be served at 4.30 p.m.

R. MURENZI

Dr R. Murenzi, of the Catholic University, Louvain, will visit England from 6th to 12th February 1989. He will give three talks, open to all members of the London Mathematical Society.

7th February at Queen Mary College, London: "Wavelet transforms of fractal aggregates"; 8th February at Nottingham University: "Wavelet transforms for Euclidean groups"; 9th February at King's College, London: "Wavelet transforms for Euclidean groups".

This visit is partially supported by the LMS "Scheme 2 for visitors".

CURVATURE GEOMETRY WORKSHOP

With support from The London Mathematical Society there will be a Workshop on Curvature Geometry 26-28 January 1989 in the Department of Mathematics, University of Lancaster. It is intended to be an intensive working meeting, bringing together specialists and research students working on real or complex manifolds. There will be generous provision for discussion and one of the main objectives will be to identify currently interesting problems and possible methodologies available for their solution. Invited Lectures include the following: L.A. Cordero (Santiago de Compostela) Holomorphic principal torus bundles, curvature and compact complex nilmanifolds; C.T.J. Dodson (Lancaster) Curvature and global properties; M. Fernandez (Bilbao) Curvature and complex geometry; S.M. Salamon (Oxford) Exceptional Riemannian geometry; F. Tricerri (Florence) Curvature homogeneous spaces; L. Vanhecke (Leuven) Curvature and geometry in normal and tubular neighbourhoods.

Offers of short contributions from participants will be welcomed. Participation is open to all interested people but the the total number will be limited. Bed and breakfast accommodation is available in local hotels with prices ranging from £16 to £30 per night. The Workshop fee will be £40 and covers costs of the Reception on the evening of 25 January, the Buffet Supper and transport on 28 January, coffee, tea and biscuits during the Workshop and a copy of the Proceedings. Further information is available from Dr C.T.J. Dodson, Department of Mathematics, University of Lancaster, Lancaster LA1 4YL, telephone 0524 65201 ext 4432, fax 0524 63806, e-mail C.T.J. Dodson @uk.ac.lancs.cent1, or from the Workshop Secretary Jennifer Fletcher at the same addresses.

HERIOT-WATT MEETINGS IN NONLINEAR SYSTEMS

The following meetings have been arranged for 1989:

16-20 January 1989. Winter School on 'Material microstructure – Mathematical theory and experiment'. Lecture courses by : S. Amelinckx (Antwerp) "Microstructure under the electron microscope"; R.V. Kohn (Courant Institute) "Mathematical problems in micromechanics".

13-17 March 1989. Workshop on 'Regularity problems in nonlinear elasticity'. Invited speakers include: L.C. Evans (Maryland), R. Gariepy (Kentucky), V. Šverák (Prague), Yu. G. Reshetnyak (Novosibirsk), R.D. James (Minnesota).

31 May - 2 June 1989. Workshop on 'Blow-up and extinction for parabolic and other systems'. Invited speakers include: F. John (Courant Institute), L.E. Payne (Cornell), C. Bandle (Basel), A. Friedman (Minnesota), J.W. Bebernes (Colorado), J.B. McLeod (Pittsburgh).

These meetings will be held in the Department of Mathematics, Heriot-Watt University, Edinburgh. For further information contact: Professor J.M. Ball, Department of Mathematics, Heriot-Watt University, Riccarton, Edinburgh EH14 4AS, U.K. E-mail: MTHJMB1@UK.AC.HW.VAXB (JANET).

MAX-PLANCK-INSTITUT FÜR MATHEMATIK

Amongst the visitors to the Max-Planck-Institut in 1989 are the following: A. Assadi (Wisconsin); S. Bando (Tohoku); R.Barlow (Cambridge); S. Bloch (Chicago); W. Browder (Princeton); H. Carayol (Strassburg); P. Colmez (Grenoble); T. Dao (Hanoi); C. Deninger (Regensburg); K. Dovermann (Hawaii); H. Esnault (Paris VII); G. Faltings (Princeton); A. Fletcher (Warwick); J. Fontaine (Orsay); M. Furushima (Kumamoto College); F. Gaeta (Madrid); R. Greenberg (Washington); Y. Hayashi (Köln); H. Heröy (Oslo); D. Husemoller (Haverford College); Y. Ihara (Tokyo); U. Jannsen (Regensburg); K. Kato (Tokyo); R. Kellerhals (Basel); F. Knop (Basel); K. Mong (Oxford); E. Nart (Barcelona); Y. Ohnita (Tokyo Metropolitan); A. Parusinski (Danzig); G. Robert (Inst. Fourier, Grenoble); J. Rohlfs (Eichstätt); N. Schappacher (Göttingen); R. Sczech (Rutgers); U. Stuhler (Wuppertal); T. Urabe (Tokyo); K. Wingberg (Erlangen); J. Wintenberger (Paris-Sud).

UNIVERSITY OF OXFORD

UNIVERSITY LECTURERSHIP IN STATISTICS

(in association with Lady Margaret Hall)

Applications are invited for a University Lecturership in Statistics, in the field of mathematical statistics, tenable from 1 October 1989 or as soon as possible thereafter. The successful candidate may be offered a tutorial fellowship by Lady Margaret Hall.

Further particulars may be obtained from Professor P. Armitage, Department of Statistics, 1 South Parks Road, Oxford OX1 3TG (telephone Oxford (0865) 272860 or 270000) to whom applications (ten typed copies, or one for overseas applicants) should be sent by 31 January 1989. (Separate application is not necessary for the associated college post.)

The University is an equal opportunities employer.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

LECTURER IN MATHEMATICS

Applications are invited for appointment to the above post from 1 October 1989.

It is planned to focus the mathematical work of the School on discrete or applicable mathematics. Candidates should have research interests in Algebra, Logic, Combinatorics or related area.

Appointment will be at an appropriate point of the Grade A or Grade B salary scale for lecturers £9,260 to £14,500 or £15,105 to £19,310 plus £1,650 London Allowance a year. In assessing the starting salary consideration will be given to qualifications, age and experience.

Application forms and further particulars are available, on receipt of a stamped, addressed envelope, from the Administrative Officer, Room H515, London School of Economics, Houghton Street, London WC2A 2AE. Closing date for applications: 3 February 1989.

Candidates wishing to discuss the post informally should contact Professor N.L. Biggs (telephone: 01 - 405 7686).

FIELDS OF INTEREST

Members of the Society have the opportunity to record in the List of Members up to three fields of interests using the AMS Mathematics Subject Classification, details of which appeared in the December 1988 LMS Newsletter. To assist, for example, the organisers of conferences or seminars, the Society is able to supply lists of all members whose entry records any particular field of interest. Requests, for up to three such lists on any one occasion should be made to The Administrator, Susan M. Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL.

EXHIBITION TO POPULARIZE MATHEMATICS

An exhibition to popularize mathematics will be held on 16-24 September 1989 at the University of Leeds. The exhibition will bring together a number of exciting international materials related to the popularization of mathematics. It will comprise major interactive exhibits, display stands, films, videos, book exhibitions and popular lectures. The exhibits and features will be chosen on the basis of their positive contribution to the popularization of mathematics, in particular its use and relevance to the community in everyday life. The exhibition will be shown in parallel with an ICMI-sponsored invitation conference on popularizing mathematics. These events are timely, given the mounting concern recently from scientific organizations about the public understanding and appreciation of science and mathematics. Mathematics often arouses negative reactions and is poorly understood by the general public. In an increasingly technological society, mathematics provides an important basis for many aspects of our daily lives. The degree of mathematical understanding in all levels of society has significant implications for the future well-being of the UK.

The exhibition in Leeds will provide a unique opportunity for the general public to enhance its attitude to mathematics, and an opportunity for those involved in mathematics and mathematical education to confront the issues involved. It is being organized by a joint group of the RS/IMA Mathematical Instruction Subcommittee (MIS) and the Joint Mathematical Council (JMC), chaired by Professor D.G. Crighton and administered by Jill Nelson at The Royal Society.

The exhibition will subsequently tour the UK, over 1989/90 and possible venues have already been identified in Bristol, Cardiff, Edinburgh, Liverpool, London, Sheffield, Southampton and Warwick. Further enquiries are being made elsewhere in the UK. The exhibition could typically stay one or two weeks, but could stay longer according to local constraints. About a third of the exhibition in Leeds will tour.

A number of exhibits have already been promised for the exhibition at Leeds, and some of them are expected to tour subsequently. The exhibition will include models and graphics illustrating concepts of space and mathematical structure. These will demonstrate aspects of mathematics such as fractal sets and algebraic knots which are currently the subject of exciting research. Many of the exhibits will be interactive (the organizing group is emphasising the importance of this), allowing visitors to investigate for themselves the consequences of mathematical activity. Yorkshire TV is co-ordinating an exhibition of relevant materials provided by independent television companies. The BBC has also been approached. The use of mathematics in industry and commerce, and the employment of mathematicians in industry will be described in a range of displays. There will be a workshop in Leeds, and hopefully elsewhere, organized by mathematics teachers in which a dozen 14/15 year olds will be involved in a variety of problem-solving and investigational activities each day. Visitors will be invited to participate in their work. Publishers will be invited to submit titles of books that contribute to popularizing mathematics, for display in a book exhibition.

MIS NEWSLETTER

The preceding article appeared in issue no.8 of the RS/IMA Mathematical Instruction Subcommittee (MIS) newsletter. The issue also contains an evaluation of ICME-6, held in Budapest in July/August 1988 and a preliminary announcement of ICME-7 which will be held in Quebec, Canada in the summer of 1992. For further MIS information, or to join the UK mailing list to receive the MIS newsletter, members should contact: Jill A. Nelson, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG (Tel (01) 839 5561 ext. 266)

AUSTRALIAN MATHEMATICAL SOCIETY

The 33rd Annual Meeting of the Australian Mathematical Society will be held at Macquarie University, Sydney from 3rd to 7th July 1989. The invited speakers are: R. Brent (A.N.U.), H. Burkhardt (Nottingham), M. Cowling (N.S.W.) H. Heyer (Tubingen), H. Lenstra (Berkeley), C. Linder (Auburn), H. Williams (Manitoba).

For further information write to Professor J. Loxton, School of Mathematics, Macquarie University, New South Wales 2109, Australia.

NATIONAL UNIVERSITY OF SINGAPORE

DEPARTMENT OF MATHEMATICS

Applications are invited for teaching appointments from candidates who are able to teach in one or more of the following areas:

Pure Mathematics
Applied Mathematics
Operational Research
Statistics

Candidates should possess a PhD degree in Mathematics or its equivalent.

Gross annual emoluments range as follows:

Lecturer	S$44,870 - 58,680
Senior Lecturer	S$53,160 - 94,090
Associate Professor	S$82,430 - 113,530

(STG £1.00 = S$3.53 approximately)

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

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of S$1,000 or S$2,000, subsidised housing at nominal rentals ranging from S$100 to S$216 p.m., education allowance for up to three children subject to a maximum of S$10,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in a calendar year.

The Department of Mathematics is a department in the Faculty of Science. There are 8 faculties in the National University of Singapore with a current student enrolment of some 14,000. All departments are well-equipped with a wide range of facilities to enhance the teaching and research activities of staff members. The University is linked to BITNET, an international network that interconnects almost 500 mainframe computers at 200 institutions of higher learning and research centres around the world.

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

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

NUS Overseas Office
Singapore High Commission in London
5 Chesham Street
London SW1 U.K.
Tel 01 - 235 4562

Enquiries may also be sent through BITNET to: PERSDEPT @ NUSVM

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 three 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 seperate 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 members 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 seperate 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 responsibilty of the member who makes the applications. Applications in the form of a letter to the Meetings and Membership Secretary (address below), can be made at any time, but should normally 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. The Society believes this scheme to be very useful and has made about ten such grants in each of the last two years.

3. Financial support for Conferences.

Grants are made from the Programme and Conference Fund to the organizers of conferences to be held in the UK. Programme Committee tends to give priority to the support of small 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 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.

The following grants for support of conferences have been made within the past six months: £700 to R. Brown for 'What Mathematics for Computer Scientists?' held at Manchester in December 1988; £1000 to C.M. Series for 'Third Annual Meeting of European Women in Mathematics' held at Warwick in December 1988; £500 to C.T.J. Dodson for 'Workshop on Curvature Geometry' to be held at Lancaster in January 1989; £350 to A. Fröhlich for 'Galois Modules' to be held at UMIST in February 1989; £500 to J.G. Taylor

for 'Neural Computing' to be held in London in April 1989; £600 to D.W. Reynolds for 'Second Dublin Differential Equations Meeting' to be held in Dublin in may 1989; £1600 to C.A. Whitehead for 'Twelfth British Combinatorial Conference' to be held at the University of East Anglia in July 1989; £1050 to C.M. Campbell and E.F. Robertson for 'Groups-St. Andrews 1989' to be held at St. Andrews in July/August 1989; £500 to H.K. Moffatt for 'Topological Fluid Mechanics' to be held at Cambridge in August 1989; £850 to I. Grattan-Guiness for 'From Fourier to Fractals' to be held at Cambridge in September 1989.

Further information about these functions of Programme Committee can be obtained from the Meetings and Membership Secretary, A.R. Pears, Department of Mathematics, King's College London, Strand, London WC2R 2LS, telephone 01-836-5454, who will be pleased to discuss proposals informally with potential applicants and to give advice on submission of an application to the Society. The next meeting of Programme Committee will be held in February and it would be a great help if suggestions and applications to be considered at that meeting could be submitted to the Meetings and Membership Secretary no later than 31 January 1989.

LONDON MATHEMATICAL SOCIETY SUBSCRIPTIONS

The Society is appreciative of those members who have paid their 1988/89 subscriptions. May we remind those who have not yet paid, that subscriptions were due on 1 November 1988 and that the Society reserves the right to discontinue the supply of periodicals and Newsletters to members whose subscriptions remain unpaid by 31st January 1989. If you have misplaced your renewal of subscription form, contact the Administrator, Susan Oakes at the LMS office.

MATHEMATICAL ANALYSIS

There will be a conference in Mathematical Analysis in honour of the memory of Jose Luis Rubio de Francia from 5th to 9th June at El Escorial, Spain. For further information write to Dr A. Carbery, Mathematics Division, University of Sussex, Falmer, Brighton, Sussex BN1 9QH or the Organising Committee, (Rubio de Francia Conference), Departamento de Mathematicas, Facultad de Ciencias, Universidad Autonoma de Madrid, 28049 Madrid, Spain.

UNIONE MATEMATICA ITALIANA

Membership dues for members of associations with a reciprocity agreement with the U.M.I. for 1989 are as follows (50% reduction with respect to ordinary dues for foreign members) : It. L. 40.000

Membership privileges include :

- Notiziario dell'U.M.I. (11 issues + 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.T., Section B (4 issues in 1989) and other publications of the U.M.I. with discounts. Subscription price to Section B for 1989 (for members) is L. 30.000: please, subscribe in this case by January, 31st, 1989
- Discounted fees for U.M.I. meeting (a main Congress is held every 4 years)
- Right to vote in the elections of officers
- A book (from a special list) is sent as a gift to all members paying their dues by 31st January, 1989.

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

INTERNATIONAL CATEGORY THEORY MEETING 1989

An International Category Theory Meeting will be held from 3rd to 7th July 1989 at the University of Wales, Bangor.

For further information write to Conference Organiser, ICTM 89, School of Mathematics, University of Wales, Bangor, Gwynedd LL57 1UT.

CAMBRIDGE

New Advances in Transcendence Theory

A. BAKER

This account of the 1986 symposium of Transcendental Number Theory at Durham, gives an authoritative view of the current state of the subject. It includes definitive new research as well as valuable survey articles and it will be a considerable influence on the future direction of transcendence theory.

448 pp. 1988 0 521 33545 0 **£45.00 net**

Divisors

R. R. HALL and **G. TENENBAUM**

The first systematic account of the multiplicative structure of integers from the probabilistic point of view, this book discusses the distribution of the divisors and will be essential reading for all researchers in analytical number theory.

Cambridge Tracts in Mathematics 90

200 pp. 1988 0 521 34056 X **£25.00 net**

The Logarithmic Integral, Volume I

PAUL KOOSIS

This book shows how, from simple ideas, one can build up an investigation which explains and clarifies many different, seemingly unrelated problems in complex analysis. Many results, some unpublished have been brought together in this self-contained volume.

Cambridge Studies in Advanced Mathematics 12

592 pp. 1988 0 521 30906 9 **£60.00 net**

A Course in Mathematics for Students of Physics, Volume 1

PAUL BAMBERG and **SHLOMO STERNBERG**

This textbook breaks new ground in presenting and applying sophisticated mathematics in an elementary setting. The authors adopt the 'spiral method' of teaching, covering the same topic several times at increasing levels of sophistication and range of application. The topics covered include many items previously dealt with only at a much more advanced level.

432 pp. 1988 0 521 25017 X **£40.00 net**

Cambridge
University Press

CAMBRIDGE

25% DISCOUNT

The Theory of Evolution and Dynamical Systems

J. HOFBAUER and **K. SIGMUND**

This introductory textbook to biomathematics for graduate students in mathematics and biology examines dynamical systems theory and its applications to evolutionary game theory, mathematical ecology, prebiotic evolution and population genetics.

London Mathematical Society Student Texts 7

352 pp. 1988 0 521 35288 6 **Hc £35.00 net**
0 521 35838 8 **Pb £11.95 net**

An Introduction to Non-standard Analysis and its Applications

Edited by **N. CUTLAND**

Non-standard analysis is a valuable tool in areas such as topology, probability, functional analysis and mathematical physics. This textbook introduces the theory and applications of NSA and discusses recent developments in the research field. It has been designed as a coherent textbook with standard notation and will be an ideal introduction for graduate students.

London Mathematical Society Student Texts 10

368 pp. 1988 0 521 35109 X **Hc £27.50 net**
0 521 35977 3 **Pb £9.95 net**

Undergraduate Algebraic Geometry

M. REID

With a minimum of prerequisites, this book develops the basic concepts in algebraic geometry and illustrates them with numerous exercises and worked examples. Although the subject is treated rigorously in terms of algebra, projective geometry is stressed from the start.

London Mathematical Society Student Texts 11

128 pp. 1988 0 521 35559 1 **Hc £20.00 net**
0 521 35662 8 **Pb £7.50 net**

Lectures on the Asymptotic Theory of Ideals

D. REES

In this book Professor Rees aims to prove his Valuation Theorem, Strong Valuation Theorem, and Degree Formula, and to develop their consequences. Mixed multiplicities are also discussed and the author develops his theory of general elements of ideals and gives a proof of a generalised degree formula.

London Mathematical Society Lecture Notes Series 113

256 pp. 1988 0 521 31127 6 **£15.00 net**

For further information on all Cambridge mathematics titles, please write to Tom Woodruffe-Peacock at the address below. LMS members are entitled to a 25% discount on LMS Series titles – please send payment with your order direct to the Customer Services Department, quoting Account Number 089 4900 001.

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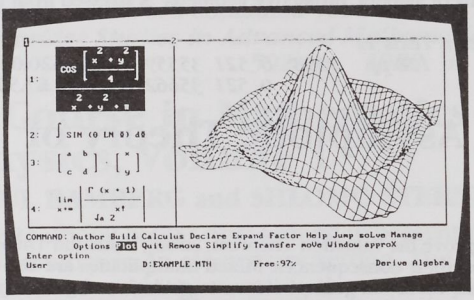

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GROUPS IN GALWAY 89

The next meeting of Groups in Galway will be held on Friday-Saturday May 12-13, 1989. Further details will be available from the organiser, John McDermott, at the Department of Mathematics, University College, Galway, Ireland.

GALOIS MODULES

There will be an informal research meeting on Galois Modules at UMIST, Manchester, on 24 and 25 February 1989. Anyone interested, please write to Mrs Pat Edwards, Department of Mathematics, UMIST, PO Box 88, Manchester M60 1QD.

EASTER MEETING ON PROBABILITY

An Easter workshop on Probability Theory will be held at the Department of Mathematics, University of Edinburgh from 10th to 14th April 1989. One theme of the meeting will be the relationship between probability and geometry.

The list of participants who have accepted invitations include: L. Arnold (Bremen), G. Ben Arous (Paris XI), H. Föllmer (Bonn), J.F. Le Gall (Paris VI) and A. Snitman (Courant). M. Keane (Delft) and R. Azencott (Orsay) are in the process of being invited.

Anyone interested in attending should contact Terry Lyons or Michael Rockner, University of Edinburgh, Department of Mathematics, The James Clerk Maxwell Building, King's Buildings, Mayfield Road, Edinburgh EH9 3JZ.

Accommodation will be in Carlyle Halls and full board for the period will cost (residence and meals together) about £116. There will a be registration fee of £20, (reduced for postgraduate students).

INSTITUT DES HAUTES EDUTES SCIENTIFIQUES

The following is a list of visitors to the Institut for the academic year 1988/89:
Bost, J.B. *Analysis, Geometry* CNRS/IHES.
Kauffman, L. *Algebraic topology* Chicago.
Kawahigashi, Y. *Operator algebras* Los Angeles.
Piveteau, J-M. *Algebraic K-theory* ETH Zurich.
Szarek, S. *Functional analysis* Cleveland.
Takesaki, M. *Functional Analysis, Operator algebras* Los Angeles.
Taylor, R. *Number theory* Princeton.
Toledo, D. *Differential geometry* Salt Lake City.
Troyanov, M. *Differential geometry* Polytechnique /IHES.
Yamanouchi, T. *Operator algebras* Los Angeles.
Zieschang, H. *Topology* Bochum.

FRACTAL GEOMETRY AND ANALYSIS

A seminar on Fractal Geometry and Analysis will be held from 3rd to 21st July 1989 at the University of Montreal. The speakers will be M.F. Barnsley (Georgia Institute of Technology) Using Dynamical Systems in Image Analysis; T.J. Bedford (Technische Universiteit Delft) Applications of Dynamical Systems Theory to Fractals; F.M. Dekking (Technische Universiteit Delft) Branching Processes, Substitutions, and Fractal Sets; S. Dubuc (Université de Montreal) Interpolation fractale; K.J. Falconer (University of Bristol) Dimensions: Their Determination and Properties; M. Hata (Kyota University) Topological Aspects of Fractal Sets and Singular Functions; J.-P. Kahane (Université de Paris-Sud) Produits de poids aléatoires indépendents et applications; B.B. Mandelbrot (IBM Thomas Watson Research Centre and Yale University) Fractals and Multifractals; M. Mèndes France (Université de Bordeaux) Dimension et entropie des courbes; C. Tricot (Ecole Polytechnique Montréal) Ordres de croissance et dimensions.

The seminar is being held with financial support from the North Atlantic Treaty Organisation, the Ministère de l'éducation du Québec, the Natural Sciences and Engineering Research Council and the Université de Montréal. The number of participants is limited to 100. Participation of doctoral students and post-doctoral fellows is particularly encouraged. Partial financial assistance will be available for a certain number of participants. Priority will be given to graduate students.

Requests for participation or financial assistance must be received before 17th February 1989. There is no registration fee. A contribution of 50$CA is required for social affairs. Cheques or money-orders should be made payable to the Séminaire de Mathématiques Supérieures.

Address all correspondence to Ghislaine David, Secrétaire, Séminaire de Mathématiques Supérieures, Université de Montréal, C.P. 6128, succ "A", Montreal, Quebéc, Canada H3C 3J7.

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Sir James Cockle (1819-1895) graduated 33rd Wrangler from Cambridge in 1841 and became a barrister, rising to become Chief Justice of Queensland from 1863 to 1879, when he returned to England. He wrote extensively on Indian astronomy, and attempted unsuccessfully for some time to solve the quintic by radicals, although he did find some interesting results about the sextic resolvent of such an equation. Amongst his 80 papers are some early discoveries concerning differential invariants. A prominent Mason, he was elected an FRS in 1865, and was the Society's twelfth President, from 1886-1888.

DIARY

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

1989

JANUARY	
9–27	Theoretical Fluid Mechanics and Applications, Italy (152)
20	LMS Meeting, London
FEBRUARY	
5–9	Applied Mathematics Conference, Australia (155)
17	LMS Meeting, Warwick.
MARCH	
17	LMS Meeting, London
30–1 Apr	Approximation Theory and Numerical Linear Algebra, U.S.A. (155)
APRIL	
3–7	British Mathematical Colloquium, Nottingham (156)
11-13	British Colloquium for Theoretical Computer Science, Surrey (156)
17–21	Algebraic and Analytic Geometry Aspects of Singularity Theory, Warwick (153)
17–28	Hyperbolic Geometry and Ergodic Theory, Italy (152)
21–22	Atiyah's 60th Birthday Meeting, Oxford (155)
MAY	
6	History of Mathematics, Bristol (156)
18–19	LMS Meeting, Liverpool
22–25	Dublin Differential Equation, Ireland (156)
23–27	Computing and Information, Canada (153)
JUNE	
8–16	Probability Conference, Singapore (155)
12–17	Geometry of Banach Spaces, Austria (154)
14–16	Nonlinear Control Systems Design, Italy (150)
16	LMS Meeting, London
30	LMS Evening of Popular Lectures, London
30–11 Jul	L-functions in Arithmetic, Durham (156)
JULY	
2–7	Gregynog Symposium on Differential Equations (156)
3–7	British Combinatorial Conference, East Anglia (146)
3–21	Séminaire de Mathématiques Supérieures, Canada (156)
10–14	Dynamics, Bifurcations and Singularity Theory, Warwick (153)
10–14	Combinatorial Mathematics and Computing, Australia (152)
11–21	Geometry of Low-dimensional Manifolds, Durham (156)
21–31	Image analysis, Durham (156)
27–29	Cauchy and the French Mathematical World, France (152)
29–12 Aug	Groups, St Andrews (156)
AUGUST	
13–19	Differential Equations and Applications, Bulgaria (148)
28–8 Sept	Variational Problems in Analysis, Italy (152)
OCTOBER	
20	LMS Meeting, London
NOVEMBER	
17	LMS Meeting, London
DECEMBER	
6–8	Category Theory and Computer Science, Manchester (154)

1990

AUGUST	
21–29	International Congress of Mathematicians 1990, Japan (151)

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 ONL (telephone 01-437 5377, fax 01-439 4629), to arrive before the first day of the month prior to publication.

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