

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 246

February 1997

FORTHCOMING SOCIETY MEETINGS

*Friday-Saturday 21-22 February 1997 - Oxford University
Group Theory*

*Friday-Saturday 23-24 May 1997 - Liverpool University
Applications of Singularity Theory*

Friday 20 June 1997 - Linnean Society, London

J.P. May (Hardy Lecture), D. Quillen

*Friday-Saturday 17-18 October 1997 - Scientific Societies Lecture
Theatre, London
Numerical Analysis*

PERIPATETIC SEMINAR

A meeting of the Peripatetic Seminar on Sheaves and Logic will be held in Bangor on the weekend of 1-2 March. This will be number 63. As usual talks on category theory, sheaves, logic and related areas are welcomed. A more detailed first announcement including a registration form and information about accommodation and how to get there will be sent out in January. Further information is available from: Professor R. Brown, School of Mathematics, University of Wales, Bangor, Dean Street, Bangor, Gwynedd LL57 1UT; e-mail: r.brown@bangor.ac.uk; tel direct: 01248 382474; fax: 01248 355881.

N. TENNEY PECK

Professor N. Tenney Peck who was elected a member of the London Mathematical Society on 17 October 1968, died on 5 July 1996.

DOCTEUR HONORIS CAUSA

Professor James Eells has been awarded the degree *Docteur honoris Causa* by the Faculté des Sciences de Université Libre de Bruxelles.

SECANTS

The fifth meeting of the South of England Computational and Algebra Number Theory Seminars (SECANTS), will be held at Royal Holloway College, Room 219, The McCrea Building on 22 March 1997. The speakers are: S. Blackburn (RHBNC) "Number Theory and Cellular Automata"; G. Everest (UEA) "Spacial Distribution of Solutions of Diophantine Equations"; J. Bygott (Exeter) "Computing Cusp Forms over Imaginary Quadratic Fields"; J. Buchman (Darmstadt), TBA. The meeting is funded by the London Mathematical Society. Any changes to the programme/speakers will be announced on the web site for SECANTS: (<http://www.ukc.ac.uk/IMS/maths/secants/>).

MATHEMATICIAN AND POET

A lecture entitled "James Joseph Sylvester - Mathematician and Poet" will be given by Professor P. Cohn of UCL Mathematics Department. It will take place on 20 March at 1.15 pm in the Darwin Lecture Theatre, University College, London.

VISIT OF DR R. GRÜBEL

Dr Rudolf Grübel is visiting Bath (and Cambridge and Sussex) with the generous support of the London Mathematical Society. He is to give a seminar on 14 February on the subject of "A probabilistic interpretation of Hoare's selection/sorting algorithm". The seminar will take place at 2.15 pm in Room 6E2.2 at the main University of Bath campus. For further information contact David Hobson, School of Mathematical Sciences, University of Bath (dgh@maths.bath.ac.uk).

VISIT OF PROFESSOR H. HEDENMALM

Professor Haakan Hedenmalm of the University of Lund will be visiting the UK at the beginning of March 1997. His visit will be supported by a Scheme 2 London Mathematical Society grant. He will lecture at the NBFAS meeting in Leeds on Monday 3 March and at University College, London on Wednesday 5 March. Professor Hedenmalm is an expert in Complex Analysis and Banach Algebras. For further details contact Dr G. Blower, University of Lancaster (e-mail: G.Blower@lancaster.ac.uk).

VISIT OF PROFESSOR K. GYÖRY

Professor K. Györy (Debrecen) will be visiting the UK during March 1997. The visit will be supported by a Scheme 2 grant from the London Mathematical Society. He will speak at University of East Anglia on Monday 3 March, at Glasgow on Thursday 6 March and at Cambridge on Tuesday 11 March. Professor Györy will speak about the distribution of solutions of the decomposable form equation with applications to the study of units in abelian group rings. For further details contact Dr G.R. Everest, UEA (e-mail: g.everest@uea.ac.uk).

VISIT OF PROFESSOR F. QUINN

Professor Frank Quinn from VPI-SU, Blacksburg, Virginia will be visiting the United Kingdom from 28 February to 8 March with the support of a Scheme 2 grant from the London Mathematical Society. He will be speaking at Edinburgh, Oxford, Cambridge and Warwick. For further information please contact Dr John Roe, Jesus College, Oxford (jroe@jesus.ox.ac.uk).

EUROPEAN STUDY GROUP WITH INDUSTRY

The 30th European Study Group with Industry (ESGI97) will take place at the University of Bath from 7-11 April 1997. This meeting will, as usual, bring academics and industrialists together to look at problems of mutual interest. The meeting starts with problem presentations by the industrialists. These are followed by intensive workshop discussions followed by presentations by the academics on the last day of the progress made on the problems. It affords a stimulating introduction to mathematical modelling applied to real life industrial problems. A training course of lectures on mathematical techniques applicable to industrial problems will be held during the meeting. Anyone interested should contact: Professor Chris Budd, School of Mathematics, University of Bath, Bath BA2 7AY; tel: 01225 826241; e-mail: ESGI97@maths.bath.ac.uk or at <http://www.maths.bath.ac.uk/ESGI97>.

CHALLENGE

On the occasion of the 35th anniversary of his membership in the London Mathematical Society, A.A. Mullin proposes the following challenge: Prove that F_8, F_9, F_{10}, F_{11} are the only four consecutive Fermat numbers with a consecutive number of prime factors. Results should be sent to him at: 506 Seaborn Drive, Huntsville, AL 358-6, USA.

LONDON MATHEMATICAL SOCIETY

TWO-DAY MEETING

FRIDAY 21ST & SATURDAY 22ND FEBRUARY 1997

MATHEMATICAL INSTITUTE, OXFORD

Group Theory

Friday

- 2.20 Opening Session
- 2.30 M. Vaughan-Lee (Oxford) *Bounds in the Restricted Burnside Problem*
- 3.30 Tea/Coffee
- 4.00 M. Broué (Paris) *On Finite Complex Reflection Groups*
- 5.15 M. Dunwoody (Southampton) *Geometric Splittings of Groups*

Saturday

- 9.15 A. Joseph (Paris and Weizmann Institute) *Harish-Chandra Homomorphisms*
- 10.15 Tea/Coffee
- 10.45 G. Higman, FRS (Oxford) *Buttons*
- 12.00 E. Zelmanov (Yale) *Variations on the Theme of Burnside*

All interested are very welcome

A dinner will be held at St Cross College, Oxford on the evening of Friday 21 February at 7.00 p.m. for 7.30 p.m. The cost of the dinner will be £14.50 per person, inclusive of wine. Those wishing to attend should inform Miss Susan Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL, enclosing a cheque payable to "The London Mathematical Society" to arrive no later than Friday 7 February.

Enquiries may be addressed to Dr Peter Neumann, The Queen's College, Oxford OX1 4AW (e-mail: peter.neumann@queens.ox.ac.uk).

HYPERBOLIC PROBLEMS THEORY, NUMERICS, APPLICATIONS

The seventh international conference on Hyperbolic Problems Theory, Numerics, Applications will be held from 9 - 13 February 1998 at ETH Zürich. The aim of the conference is to bring together scientists with interests in the theoretical, applied and computational aspects of hyperbolic partial differential equations. There will be an emphasis on nonlinear problems and applications in different fields. As in the past, a special effort will be made to make it possible for young scientists to attend in order to promote their interaction with senior researchers.

The programme of the conference will include plenary 45 minute lectures, invited 30 minute presentations and 20 minute communications. An abstract can be submitted consisting of at least 1000 but not more than 2000 words. Instructions are available from the conference web page (<http://www.sam.math.ethz.ch/hyp98/abstract.html>). Refereed proceedings will be published. For further information contact the organizer: Rolf Jeltsch, tel: +41 1 632 34 52; e-mail: jeltsch@sam.math.ethz.ch.

ADVANCED SCHOOL ON MATHEMATICAL MODELS OF SYSTEMS INVOLVING PHASE CHANGES

The Advanced School aims to give young researchers an overview of both current mathematical modelling of solid-liquid continua and related experimental results. The course, to be held from 2 - 20 June 1997 at the International Centre for Mathematical Sciences, Edinburgh, will provide a coherent focus for the dynamical and thermodynamical principles underlying the diverse phenomena of mixed phase systems. The School is intended for mathematicians, metallurgists, geophysicists and researchers in related areas at the post-doctoral level

who work with dynamical mixed phase systems. Participants will be expected to take part in the whole three week programme. The number taking the Advanced School will be restricted to about twelve. The Advanced School is one element in a three week programme that will include an International Workshop, dealing with macroscopic manifestations of solid-liquid mixed phase systems, and a conference on the "Dynamics of Mixed Phase Regions".

To apply for the Advanced School please complete the application form on the ICMS Web site <http://www.ma.hw.ac.uk/icms> and send it to the organizer by 28 February 1997. The Scientific Committee will select participants based on the applications. The School and Workshop are free of charge but there will be a small conference fee. A limited number of participants from Universities and Academies who are not supported by their institutions may be offered travel and subsistence support.

The Scientific Committee consists of: M.E. Glicksman (RPI, New York), R.N. Hills (Heriot-Watt, Edinburgh), H.E. Huppert (Cambridge, UK), C. Jaupart (IPG, Paris), D.E. Loper (Florida State). For further information contact the organizer: R.N. Hills, Department of Mathematics, Heriot-Watt University, Riccarton, Edinburgh EH14 4AS (r.n.hills@bonaly.hw.ac.uk).

VISIT OF PROFESSOR L. SHAIKHET

Professor Leonid Shaikhhet (Donetsk, Ukraine) has been awarded a London Mathematical Society grant (FSU Scheme) to visit the United Kingdom. He will be based at University College Chester from 10 February to 10 March 1997. His interests are in functional differential equations and particularly in stochastic equations. For further information contact Dr Neville Ford, Department of Mathematics, University College Chester, Cheyney Road, Chester CH1 4BJ (njford@chester.ac.uk).

LONDON MATHEMATICAL SOCIETY

TWO-DAY MEETING
Friday-Saturday 23-24 May 1997
University of Liverpool

APPLICATIONS OF SINGULARITY THEORY

V.V. Goryunov (University of Liverpool)
D.T. Lê (Université de Provence, Marseille)
D.M.Q. Mond (University of Warwick)
A. Parusinski (University of Angers)
B. Teissier (Ecole Normale Supérieure, Paris)
A.N. Varchenko (University of North Carolina, Chapel Hill)

UNIVERSITY OF SOUTHAMPTON **CHAIR IN PURE MATHEMATICS**

Applications are invited for a Chair in Pure Mathematics. The vacancy arises through the impending retirement of Professor S A Robertson in September 1997. It is hoped that the successful candidate for the Chair will take up the post on 1 September 1997 or as soon as possible thereafter. The appointee will have research interests in an area which will support and enhance existing areas of research strength in the Faculty.

Informal enquiries may be directed to Professor M.J. Dunwoody, telephone (01703) 593659, e-mail mjd@maths.soton.ac.uk, <http://www.maths.soton.ac.uk/pure/chair.html>

Further particulars may be obtained from the Director of Personnel Services, University of Southampton, Southampton SO17 1BJ, telephone (01703) 593353, to whom applications (10 copies of a full curriculum vitae from UK applicants, one from overseas) should be sent together with the names and address of three referees, by **7 March 1997**. Please quote reference number P/230.

Working for Equal Opportunities

EUROCONFERENCES IN MATHEMATICS ON CRETE

The Department of Mathematics of the University of Crete announces the 1997 conferences of the series Euroconferences in Mathematics on Crete, sponsored by the Training and Mobility of Researchers Programme of the Commission of the European Union.

Dirichlet Forms and their Applications in Geometry and Stochastics, 22-28 June 1997. Organizers: J. Jost (Leipzig, Germany), U. Mosco (Rome, Italy), K.T. Sturm (Erlangen, Germany). Main speakers: J. Jost (Leipzig, Germany), W. Kendall (Warwick, UK), U. Mosco (Rome, Italy), M. Rockner (Bielefeld, Germany), K.T. Sturm (Erlangen, Germany).

Nonlinear Dispersive Waves: Theory and Applications 29 June - 5 July 1997. Organizers: V.A. Dougalis (Athens, Greece), A.S. Fokas (London, UK). Main speakers: J.L. Bona (Austin, USA), D.G. Crighton (Cambridge, UK), A. Its (Purdue, USA), J.-C. Saut (Paris-Sud, France), V.E. Zakharov (Moscow, Russia).

The conferences will take place at the Anogia Academic Village, a conference centre located at the traditional Cretan village of Anogia. The living expenses (accommodation plus meals) per day for a person are estimated at about 33 ECU in a double room or 43 ECU in a single room. The registration fee amounts to 250 ECU. The Training and Mobility of Researchers Programme financially supports young researchers from the countries of the European Economic Area to enable them to attend the conferences. There will be also some limited funds from other sources available to support participants not belonging to the above group. Support can cover (all or certain) travel, living and registration expenses. For information please contact the local co-ordinator of the conference series indicated below.

The conference series will continue in 1998 with the following three conferences: "Groups of finite Morley rank" (A.V. Borovik, UMIST, UK); "Galois representations in arithmetic geometry"

(M.J. Taylor, UMIST, UK); "Front propagation: theory and applications" (P.L. Lions, Paris-Dauphine, France).

The topics of the conferences, which will follow in the next years, will be decided by the international scientific committee consisting of: H. Abels (Bielefeld, Germany), H. Bauer (Erlangen, Germany), C. Dafermos (Brown University, USA), O. Kegel (Freiburg, Germany), S. Papadopoulou (Crete, Greece), V. Thomee (Goteborg, Sweden), A. Wilkie (Oxford, UK). The next meeting of the committee will be in Autumn 1997. Suggestions for topics for future conferences should be sent to the local co-ordinator of the series.

For additional information contact the local co-ordinator: Susanna Papadopoulou, Department of Mathematics, University of Crete, Heraklion, Crete, Greece; e-mail: souzana@math.uch.gr; fax: 81-234516.

SPECIAL STAMP FOR ICM98

About two years ago the ICM98 Organizing Committee contacted the German Ministry of Postal Affairs and Telecommunication to issue a special stamp on the occasion of the International Congress of Mathematicians in Berlin in August 1998. A few days ago a positive reply was received. The "selection committee for special stamps" proposed ICM98 as one of the themes for a special stamp. The Minister of Postal Affairs agreed. The Ministry will ask several artists for design proposals. The artists are supposed to contact the ICM98 organizing committee (URL: <http://elib.zib.de/ICM98>) for ideas. Another committee will make the selection.

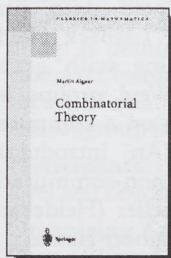
Stamp collectors will have the opportunity to buy first-day covers during the opening day 18 August 1998 of ICM98 in Berlin. This occasion may be another good reason to attend the International Congress in Berlin.

Martin Groetschel
President

ICM98 Organizing Committee

New Classics for the New Year

∞ CIM CLASSICS IN MATHEMATICS



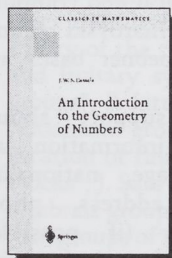
M. Aigner

Combinatorial Theory

X, 484 pages.
Softcover £ 25
ISBN 3-540-61787-6

From the reviews:
"This book presents a very good introduction to combinatorics. It covers most aspects of enumeration and order theory ... This book can warmly be recommended first of all to students

interested in combinatorics. A two semester course can also be based on it." *Publicationes Mathematicae Debrecen*
Due January 1997



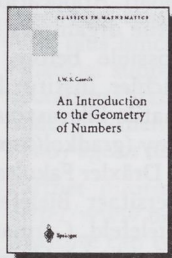
J.W.S. Cassels

An Introduction to the Geometry of Numbers

X, 344 pages.
Softcover £ 25
ISBN 3-540-61788-4

From the reviews:
"The work is carefully written. It is well motivated,

and interesting to read, even if it is not always easy ... the author has written an excellent account of an interesting subject."
Mathematical Gazette
Due January 1997



P. Dembowski

Finite Geometries

XIV, 378 pages.
Softcover £ 25
ISBN 3-540-61786-8

From the reviews:
"The author deserves unstinting praise for the skill, energy, and perseverance which he devoted to his work. The finished product confirms what his many earlier contributions to the subject of finite geometry have already indicated, namely, that he is an undisputed leader in his field."
Mathematical Reviews
Due January 1997

Already available:

A. Dold

Lectures on Algebraic Topology

1995. XIII, 377 pages. 10 figures.
Softcover £ 25
ISBN 3-540-58660-1

H. Federer

Geometric Measure Theory

1996. XIV, 676 pages.
Softcover £ 25
ISBN 3-540-60656-4

F. Hirzebruch

Topological Methods in Algebraic Geometry

1995. XI, 234 pages.
Softcover £ 25
ISBN 3-540-58663-6

K. Itô, H. McKean

Diffusion Processes and their Sample Paths

1996. XV, 321 pages.
Softcover £ 25
ISBN 3-540-60629-7

T. Kato

Perturbation Theory for Linear Operators

1995. XXI, 624 pages.
Softcover £ 25
ISBN 3-540-58661-X

S. Kobayashi

Transformation Groups in Differential Geometry

1995. VIII, 182 pages.
Softcover £ 25
ISBN 3-540-58659-8

S. MacLane

Homology

1995. X, 422 pages. 7 figures.
Softcover £ 25
ISBN 3-540-58662-8

J. Lindenstrauss, L. Tzafriri

Classical Banach Spaces I and II

Sequence Spaces;
Function Spaces
1996. XX, 432 pages.
Softcover £ 25
ISBN 3-540-60628-9

D. Mumford

Algebraic Geometry I Complex Projective Varieties

1995. X, 186 pages.
Softcover £ 25
ISBN 3-540-58657-1

C.-L. Siegel, J.K. Moser

Lectures on Celestial Mechanics

1995. XII, 290 pages.
Softcover £ 25
ISBN 3-540-58656-3

A. Weil

Basic Number Theory

1995. XVIII, 315 pages.
Softcover £ 25
ISBN 3-540-58655-5

K. Yosida

Functional Analysis

1995. XII, 501 pages.
Softcover £ 25
ISBN 3-540-58654-7

O. Zariski

Algebraic Surfaces

1995. XI, 270 pages.
Softcover £ 25
ISBN 3-540-58658-X

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



Springer

Please order through
Springer-Verlag London Ltd.
Sweetapple House
Cotteshall Road
Godalming - Surrey GU7 3DJ

COMPUTATIONAL METHODS FOR REPRESENTATIONS OF GROUPS AND ALGEBRAS

This is the first Euroconference in a series of four organized by the network 'Invariants and Representations of Algebras' (Antwerp, Bielefeld, Edinburgh, Essen, Ioannina, Leeds, Murcia, Paris VI, Torun, Trondheim) and co-ordinated by C.M. Ringel (Bielefeld). The series is sponsored by the TMR programme of the European Union. Additional support for the first conference is provided by the IEM (Essen) and the SFB 343 (Bielefeld). The aim of the conference is to bring together established scientists and young researchers (ie, aged under 35). This conference is being held from 1 - 5 April 1997 at the Institute for Experimental Mathematics, Essen. It is intended to provide a concise introduction to the use of computational methods in parts of group theory, representation theory and invariant theory. Young researchers from the EU and associated countries are especially invited to participate. They can apply for full support both for the travel and for their local expenses at Essen.

A tentative list of speakers and titles follows. Introductory Lectures: P. Draexler (Bielefeld) "Classification problems in the representation theory of algebras"; H. Gollan (Essen) "Parallel linear algebra over finite fields"; E. Green (Blacksburg) "Projective resolutions and Groebner bases for path algebras"; R. Wilson (Birmingham) "Computer constructions of finite simple groups". Keynote and Focal Lectures: J. Carlson (Athens) "Computer calculations of modules and cohomology"; P. Dowbor (Torun) "Weighted projective lines and canonical algebras"; F. Du Cloux (Villeurbanne) "Some open problems in the theory of Coxeter groups and Kazhdan-Lusztig polynomials"; B. Fischer (Bielefeld) "Computing in finite sporadic simple groups"; P. Fleischmann (Essen) "On degree bounds for modular invariant rings"; D. Green (Essen) "Computing

cohomology of p -groups"; G.M. Greuel (Kaiserslautern) "Introduction to singular and singular at work"; G. Havas (Brisbane) "Coset enumeration and related topics"; D. Holt (Warwick) "Computation in finitely presented groups"; H. Lenzing (Paderborn) "Coxeter transformations associated with finite dimensional algebras"; F. Luebeck (Heidelberg) "CHEVIE - dealing with generic groups of Lie type, Weyl groups and Iwahori-Hecke algebras on a computer"; T. Mora (Genova) "An introduction to commutative and non-commutative Groebner bases"; J. Mueller (Heidelberg) "Computation in Iwahori-Hecke algebras"; S. Ovsienko (Kiev) "Bimodule and matrix problems"; J.A. de la Peña (Mexico) "Integral quadratic forms and algebras: Some theoretical and computational aspects"; V. Ufnarovski (Lund) "Non-commutative Groebner bases and Anick's resolution".

Applications for support should include the following information: last name, first name, age, nationality, university/company, address, phone number, fax number (if possible), university degrees, brief *curriculum vitae* since graduation, current or projected research activities, comments on benefit of participation from supervisor or department head (optional). Applications may be sent to one of the organizers by e-mail or letter, if possible before 14 February 1997 to: G. Michler, Institut für Experimentelle Mathematik, Ellernstrasse 29, 45326 Essen, Germany (gradkol@exp-math.uni-essen.de) or P. Dräxler Fakultät für Mathematik, Universität Bielefeld, PO Box 100131, 33501 Bielefeld, Germany (draexler@mathematik.uni-bielefeld.de).

Consult: <http://www.mathematik.uni-bielefeld.de/sek/E-C-net.html> for up-to-date information about the network and the conferences.



**A NATO Advanced Study Institute with
additional support from the European Union
MODULAR REPRESENTATION THEORY AND
SUBGROUP STRUCTURE OF ALGEBRAIC
GROUPS AND RELATED FINITE GROUPS**

23 June - 4 July 1997

Aims: To survey the current understanding of the irreducible representations of reductive algebraic groups in the algebraically closed field over which the group is defined. Particular attention will be paid to Lusztig's conjectured character formula for such representations. Applications to the representation theory of related finite groups will also be considered, as will applications to the subgroup structure of algebraic groups.

Participants: The ASI is aimed at research mathematicians at postdoctoral level and beyond, but will also be accessible to good research students.

Organising Committee: H.H. Andersen (Aarhus), M. Broué (Paris), R.W. Carter (Warwick), J. Saxl (Cambridge).

Lecturers and Provisional Titles: H.H. Andersen "Tilting modules for algebraic groups"; M. Aschbacher "Quasithin groups"; M. Broué "Modular Harish-Chandra theory"; R.W. Carter "Introduction to the representation theory of algebraic groups"; G.D. James "New results in the representation theory of the symmetric group"; A. Kleshchev "Some problems on the finite and finitary symmetric groups"; M.W. Liebeck "Subgroups of exceptional groups"; P. Littelmann "Paths and bases for irreducible modules"; G. Lusztig "Quantum groups and affine Lie algebras"; R. Lyons "Revision of the classification of finite simple groups"; G.R. Robinson "Arithmetical properties of blocks"; J. Saxl "Overgroups of special elements"; G.M. Seitz "Double cosets in algebraic groups"; J-P Serre "Finite subgroups of Lie groups"; D.M. Testerman "Subgroups of type A1 in the exceptional groups".

There will also be a limited number of contributed lectures.

Location and Costs: The ASI will take place at the Newton Institute and accommodation for participants will be provided at Wolfson Court, adjacent to the Institute. The conference package costs £560, which includes accommodation, breakfast and evening meals from Sunday 22 June until Saturday 5 July, plus lunch and refreshments during the days that lectures take place. Financial support for selected applicants from (a) NATO countries and Co-operation Partner countries, (b) European Union and associated countries aged under 35 (men) or under 40 (women) is available. Self-supporting applicants of any age or nationality are welcome.

Further information and application forms are available from WWW at <http://www.newton.cam.ac.uk> where general information about the Newton Institute can be found, or from Michael Sekulla at the Newton Institute, 20 Clarkson Road, Cambridge CB3 0EH, e-mail: m.sekulla@newton.cam.ac.uk.

Closing date for the receipt of applications is **1 March 1997**

LIST OF MEMBERS OF LMS ADVISORY BOARD

1997

Elementary and analytic theory of numbers	Professor R.C. Baker, Dept. of Mathematics, Brigham Young University, Provo, UT 84602-6539, USA
Probability	Professor N.H. Bingham, Dept. of Statistics, Birkbeck College, Malet Street, London WC1E 7HX
Dynamical systems and complex dynamics	Dr S.R. Bullett, School of Mathematical Sciences, Queen Mary & Westfield College, Mile End Road, London E1 4NS
Algebraic number theory	Dr D. Burns, Dept. of Mathematics, King's College, Strand, London WC2R 2LS
Real harmonic analysis	Professor A.P. Carbery, Dept. of Mathematics, University of Edinburgh, Mayfield Road, Edinburgh EH9 3JZ
Representation theory and algebra	Dr W. Crawley-Boevey, School of Mathematics, University of Leeds, Leeds LS2 9JT
Probability	Dr R.A. Doney, Dept. of Mathematics, University of Manchester, Manchester M13 9PL
Algebra	Professor S. Donkin, School of Mathematical Sciences, Queen Mary & Westfield College, Mile End Road, London E1 4NS
Differential equations and related areas of analysis	Professor D.E. Edmunds, Mathematics Division, University of Sussex, Falmer, Brighton BN1 9QH
Geometry and measure theory	Professor K.J. Falconer, Dept. of Mathematical and Computational Sciences, North Haugh, St Andrews, Fife KY16 9SS
Singularity theory	Dr C.G. Gibson, Dept. of Mathematical Sciences, University of Liverpool, Liverpool L69 3BX
Topology	Professor J.P.C. Greenlees, School of Mathematics and Statistics, Hicks Building, University of Sheffield, Sheffield S3 7RH
Elementary and analytic number theory	Dr D.R. Heath-Brown, FRS, Magdalen College, Oxford OX1 4AU
Graph theory and combinatorics	Professor A.J.W. Hilton, Dept. of Mathematics, University of Reading, Whiteknights, PO Box 220, Reading RG6 2AX
Functions of one complex variable	Dr J.K. Langley, Dept. of Mathematics, University of Nottingham, Nottingham NG7 2RD
Group theory and combinatorics	Professor M.W. Liebeck, Dept. of Mathematics, Imperial College, 180 Queen's Gate, London SW7 2BZ
Nonlinear analysis and differential equations	Professor N.G. Lloyd, Dept. of Mathematics, University College of Wales, Penglais, Aberystwyth, Dyfed SY23 3BZ

Combinatorics and theoretical computer science	Professor C.J. Mitchell, Dept. of Computer Science, Royal Holloway, Egham Hill, Egham, Surrey TW20 0EX
Low-dimensional topology	Dr H.R. Morton, Dept. of Mathematical Sciences, University of Liverpool, Liverpool L69 3BX
Algebraic geometry	Dr P.E. Newstead, Dept. of Mathematical Sciences, University of Liverpool, Liverpool L69 3BX
Functional analysis	Dr J.R. Partington, School of Mathematics, University of Leeds, Leeds LS2 9JT
Functional analysis	Professor R.J. Plymen, Dept. of Mathematics, University of Manchester, Manchester M13 9PL
Functional analysis	Professor S.C. Power, Dept. of Mathematics and Statistics, Lancaster University, Lancaster LA1 4YF
Mathematical logic	Dr M.Y. Prest, Dept. of Mathematics, University of Manchester, Manchester M13 9PL
Algebra	Professor S.J. Pride, Dept. of Mathematics, University of Glasgow, University Gardens, Glasgow G12 8QW
Group theory and representation theory	Professor G.R. Robinson, Dept. of Mathematics, University of Leicester, Leicester LE1 7RH
Differential geometry and global analysis	Dr S.M. Salamon, Mathematical Institute, 24-29 St Giles, Oxford OX1 3LB
Noncommutative algebra	Professor J.T. Stafford, Dept. of Mathematics, University of Michigan, Ann Arbor, MI 48109-1003, USA
Mathematical physics	Dr N.M.J. Woodhouse, Wadham College, Oxford OX1 3PN

E C Lance, Publications Secretary

SYLVESTER COMMEMORATION

To mark the centenary of the death of James Joseph Sylvester, formerly Savilian Professor of Geometry and Fellow of New College, there will be a programme of lectures between 10 am and 1 pm on Saturday 15 March. They will be held in the MacGregor-Mathews Room of New College, formerly the Wyatt Library, which would have been well-known to Sylvester. Those who wish to attend should reserve places in advance (see below); entrance to the college is from Holywell Street. The audience is expected to be a mixture of mathematicians and nonmathematicians. The lectures will be addressed more to the latter, since the programme at a separate commemoration in London the previous day will be addressed more to the former.

Provisionally the programme will be Ioan James (University of Oxford) "James Joseph Sylvester"; Hugh Stewart (Institute of Actuaries) "Sylvester the Actuary"; Adrian Rice (Middlesex University) "Sylvester's social circle"; John Fauvel (Open University) "Sylvester at Oxford"; Karen Parshall (University of Virginia) "Mathematicians in the broader culture: The case of J.J. Sylvester". The capacity of the room is strictly limited. To reserve a place, those who wish to attend should send their names and addresses, before the end of February, to myself, at the Mathematical Institute, 24-29 St Giles, Oxford OX1 3LB; please do not phone or use e-mail.

Ioan James

LONDON MATHEMATICAL SOCIETY COUNCIL, COMMITTEES AND REPRESENTATIVES, 1997

PRESIDENT: J.M. Ball.

VICE-PRESIDENTS: W.A. Hodges, A.J. Macintyre.

TREASURER: A.O. Morris.

COUNCIL AND GENERAL SECRETARY: J.S. Pym.

MEETINGS AND MEMBERSHIP SECRETARY: D.J.H. Garling.

PUBLICATIONS SECRETARY: E.C. Lance.

LIBRARIAN: J.A. Erdos.

MEMBERS-AT-LARGE OF COUNCIL: R.J. Archbold, K.A. Brown, A.R. Camina, A.G. Chetwynd, A.D. Gardiner, J.D.S. Jones, F.C. Kirwan, U. Martin, E.G. Rees, P.T. Saunders, A.J. Scholl, J.F. Toland.

Unless otherwise stated, periods of service end on 31st December of the year indicated.

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.H. Garling, W.A. Hodges, F.C. Kirwan.

PROGRAMME COMMITTEE: President (Chairman), Meetings and Membership Secretary (Secretary), A.G. Chetwynd, F.C. Kirwan, E.G. Rees, A.J. Scholl, J.F. Toland.

PERSONNEL AND OFFICE MANAGEMENT COMMITTEE: K.A. Brown (Chairman) (15.11.96 - 19.11.99), R.A. Bailey (93 - 21.11.97), W.A. Hodges (93 - 21.11.97).

1997 PRIZES COMMITTEE: J.M. Ball (Convenor), T.J. Lyons, I.G. Macdonald, R.S. Mackay, E.G. Rees.

PUBLICATIONS COMMITTEE: Publications Secretary (Convenor), Deputy Publications Secretary (D.A. Brannan), Joint Editors of Bulletin, Journal and Proceedings, LMS-nominated Editor of Nonlinearity, Book Reviews Editor (P.G. Dixon), H.G. Dales (Books), W.A. Hodges, J.F. Toland (Council).

DURHAM SYMPOSIA COMMITTEE: N.J. Young (Chairman) (92-98), A.J. Scholl (Secretary *ex-officio*, and representing Council), S.J. Hogan (97-01), M.W. Liebeck (95-99), P.J. McCarthy (94-98), J. Roe (97-01), B.D. Sleeman (94-98), M.J. Taylor (95-99).

EDUCATION COMMITTEE: P.T. Saunders (Chairman) (97-01), A.D. Barnard (94-98), S.J. Burns (90-98), A.D. Gardiner (95-99), S.A. Huggett (92-01), G.D. James (93-97), A.C. McBride (92-01), T. Porter (90-00), P.J. Rippon (97-01), D.O. Tall (97-01).

COMPUTER SCIENCE COMMITTEE: U. Martin (91-99) (Chair), Convenor of the Team On Electronics, A.G. Chetwynd (97-01), J.H.C. Gunawardena (96-00), C.J. Mitchell (94-98), W.P.R. Mitchell (95-99), A.M. Pitts (94-98), I.A. Stewart (95-99), C. Stirling (97-01).

MATHEMATICS FUNDING COMMITTEE: E.G. Rees (94-97) (Chairman 18.11.94 - 20.11.98), R.A. Bailey (96-98), J.W. Bruce (95-97), H.G. Dales (90-97), A. Norcliffe (97-99), G. James (97-99).

TEAM ON ELECTRONICS: W.A. Hodges (Convenor), Meetings and Membership Secretary, Publications Secretary, J.H. Davenport, C.A. Rowley, C.T.C. Wall.

BOARD OF LMS PUBLISHING LIMITED: President (Chairman), Publications Secretary, Treasurer, D.J.H. Garling.

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

EUROPEAN MATHEMATICAL SOCIETY COUNCIL: D.J. Collins (96-99), C.J. Mulvey (90-97), P.T. Saunders (94-97).

BRITISH MATHEMATICAL COLLOQUIUM SCIENTIFIC COMMITTEE, NOMINEES: R.W. Carter (BMC AGM 97 - BMC AGM 00), M.J. Taylor (BMC AGM 94 - BMC AGM 98), vacancy.

JOINT MATHEMATICAL COUNCIL: P.T. Saunders (96-01).

ROYAL SOCIETY MATHEMATICS INSTRUCTION SUBCOMMITTEE: A.D. Gardiner (95-99).

ISAAC NEWTON INSTITUTE MANAGEMENT COMMITTEE: D.A. Brannan (95-98).

ISAAC NEWTON INSTITUTE SCIENTIFIC COMMITTEE: J.F. Toland (96-99), C.T.C. Wall (91-97).

EDINBURGH INTERNATIONAL CENTRE FOR MATH. SCIENCES STEERING COMMITTEE: J.M. Ball (15.11.96 - 20.11.98)

EDINBURGH INTERNATIONAL CENTRE FOR MATH. SCIENCES PROGRAMME COMMITTEE: J.H. Coates (91-99), T.J. Pedley (97-99).

BRITISH ASS. FOR THE ADVANCEMENT OF SCIENCE, MATH. COMMITTEE: P.M.-K. Shiu (96-00).

COMMITTEE OF HEADS OF DEPARTMENTS OF MATH.SCIENCES: K.A. Brown.

UNDERGRADUATE MATHEMATICS TEACHING COMMITTEE: D.S.G. Stirling (94-98).

NATIONAL COMMITTEE FOR MATHEMATICAL CONTESTS: A.D. Gardiner (91-00).

BRITISH MATHEMATICAL OLYMPIAD COMMITTEE: P.M.-K. Shiu, A. West (94-98).

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

ICIAM 99 NATIONAL ORGANISING COMMITTEE: B.D. Sleeman.

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

COLLINGWOOD PRIZE COMMITTEE: A.J. Scholl.

J. S. Pym
Council and General Secretary

LONDON MATHEMATICAL SOCIETY INVITED LECTURE SERIES 1997

Professor J.L. Alperin, University of Chicago
Characters, Subgroups and Modules

A series of 10 lectures on representation theory will be given by Professor J.L. Alperin during the week 14 - 18 April 1997 in the School of Mathematics and Statistics, University of Birmingham.

The series will take as its starting point and main motivation the character table and all its mysteries. It will show how this leads to the main topics in representation theory, such as modular representations, groups of Lie type and even the latest notions like derived categories. Many interesting and important open problems will be mentioned, to give an indication of all the worlds that remain to be conquered. The lectures will be addressed to a wide audience of experts and non-experts, and they should be accessible to research students in nearby fields. Some preliminary reading, from any book on representation theory, would be helpful.

Tentative Programme

- Wedderburn theorems and characters of finite groups: a review. Structure of algebras and their representations. Application to finite groups. Characters and character tables.
- Open problems. The main problem of character theory arising from Brauer's work. The weight, McKay and Dade conjectures. The Knorr-Robinson reformulations using the p -subgroup complexes.
- Homological methods. Projective modules, projective resolutions, relatively projective modules and induced modules.
- Cyclic theory. Groups with a cyclic Sylow p -subgroup, Brauer trees, blocks.
- Equivalences. Morita equivalences, stable equivalences, derived equivalences, conjectures of Broué and work of Rickard.

Accommodation Some accommodation, costing £23.55 per night for a single room and English breakfast, has been reserved in University House from 13 to 18 April 1997. Modest financial assistance will be available for research students who apply early for accommodation. If you wish to use this accommodation, please contact the organizers as soon as possible; unrequired rooms may have to be released in the middle of January. There are (more expensive) bed and breakfast hotels close to the University where one might be able to find accommodation even on the day of arrival.

Registration Participants are asked to register (by e-mail or letter). There is no registration fee. Early registration (preferably before the end of January) would be greatly appreciated by the organizers, but later registration is also possible.

Contact address For further details, registration, and arrangement of accommodation, please contact Mrs S. Bennett at the School of Mathematics and Statistics, University of Birmingham, Edgbaston, Birmingham B15 2TT (e-mail: s.d.bennett@bham.ac.uk, tel: 0121-414-6593).



H. LEBESGUE
Honorary Member 1924

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.

FEBRUARY 1997

- 14 Edinburgh Mathematical Society Meeting, Edinburgh (241)
21-22 Group Theory, Two-day London Mathematical Society Meeting, Oxford

MARCH 1997

- 3 North British Functional Analysis Seminar, University of Leeds (245)
14 Edinburgh Mathematical Society Meeting, Stirling (241)
14 Sylvester Centenary Meeting, University College, London (244)
15 Sylvester Centenary Meeting, New College, Oxford (244)
18-21 Nonlinear Dynamics and Spectra of Molecules Workshop, Warwick University (243)

APRIL 1997

- 1-11 Stochastic Partial Differential Equations Instructional Meeting, ICMS, Edinburgh (244)
2-4 British Topology Meeting, Mathematical Institute, Oxford (244)
4 39th British Theoretical Mechanics Colloquium, Edinburgh (244)
7-11 Models and Algorithms for Planning and Scheduling Problems Workshop, Queen's College, Cambridge (242)
7-12 Modular Representation Theory in the Non-Defining Characteristic Workshop, Isaac Newton Institute, Cambridge (245)
8-11 Fractals in the Natural and Applied Sciences, Denver, Colorado, USA (233)
11-14 Low-Dimensional Topology Conference, Sussex University (242)
14-17 British Mathematical Colloquium, Royal Holloway, Surrey (242)
14-18 LMS Invited Lectures, Birmingham University, Professor J.L. Alperin (238)
17 Special Meeting Marking the Retirement of Bill Morton, Computing Laboratory, Oxford (244)
17-19 Postgraduate Combinatorics Conference, Royal Holloway College, Surrey (245)

MAY 1997

- 2 Edinburgh Mathematical Society Meeting, Aberdeen (241)

- 23-24 Two-day London Mathematical Society Meeting, Liverpool

- 23-24 Groups in Galway Meeting, Galway (245)

JUNE 1997

- 6 Edinburgh Mathematical Society Meeting, St Andrews (241)
20 London Mathematical Society Meeting, Linnean Society, London
23- 4 July Confinement, Duality and Non-Perturbative Aspects of QCD Workshop, Isaac Newton Institute, Cambridge (245)
26-28 Joint International Meeting in South Africa, University of Pretoria, South Africa (244)
30-1 July Boundary Integral Methods Conference, Leeds University (242)

JULY 1997

- 6-13 Logic Colloquium, Leeds University (244)
7-11 Harmonic Morphisms, Harmonic Maps and Related Topics, Université de Bretagne Occidentale, Brest, France (244)
7-11 British Combinatorial Conference, Queen Mary & Westfield College (230) (245)
14-24 Pro-p Groups and Related Topics, LMS Durham Symposium
26 - 9 Aug Groups St Andrews 1997, Bath University (244)
28 - 8 Aug Representation Theories and Algebraic Geometry Seminar, Université de Montréal, Canada (245)

AUGUST 1997

- 24-29 15th IMACS World Congress 1997 on Scientific Computation, Modelling and Applied Mathematics, Berlin, Germany (243)

SEPTEMBER 1997

- 8-12 Stochastic Modelling of Physical Systems Workshop, Cambridge University (244)

OCTOBER 1997

- 17-18 Two-Day London Mathematical Society Meeting, London

NOVEMBER 1997

- 21 London Mathematical Society, Annual General Meeting, London

The Newsletter is published monthly except in August. Items and advertisements for inclusion in the Newsletter should be sent to the Editor, Susan Oakes, by e-mail, fax or post to the LMS office (addresses below), to arrive before the first day of the month prior to publication.

The London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL

Tel: 0171-437 5377, fax: 0171-439 4629, e-mail: lms@lms.ac.uk

World Wide Web: <http://www.qmw.ac.uk/~lms/lms.html>

The London Mathematical Society is registered with the Charity Commissioners.