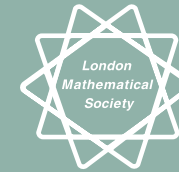


THE LONDON MATHEMATICAL SOCIETY



NEWSLETTER

No. 325 April 2004

Forthcoming Society Meetings

2004

**Wednesday 12 May
Nottingham**

Midlands Regional
Meeting
E. Bayer
J-H. Colliot-Thélène
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**Friday 18 June
London**

J. Rickard
T. Tao
(Hardy Lecture)

**Friday 2 July
Newcastle**

Northern Regional
Meeting
M. Gromov
R. Grigorchuk
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**Friday 17 September
Exeter**

South West & South
Wales Regional
Meeting
R. Langlands
G. Henniart

**Friday 19 November
London**

Annual General
Meeting

INTERNATIONAL REVIEW OF MATHEMATICS

By the time this *Newsletter* reaches you we expect the Report of the International Review of UK Mathematics Research to have been published. Copies will be sent to all mathematics departments, research institutes and those who were involved in the Review itself. The report is available electronically at <http://www.cms.ac.uk/irm>.

A Community Meeting is being held on Tuesday 4 May – please check the website for further details of venue, timing, etc., as those were not confirmed at the time of going to press with this *Newsletter*. The Chair of the International Panel, Jean-Pierre Bourguignon, will present his Panel's Report and its conclusions and recommendations; there will be ample time for discussion of how the mathematical community, the mathematical societies and the research funding agencies should take matters forward.

Plans are in hand for short sessions at the BMC and BAMC to highlight the Report and to draw delegates' attention to the conclusions and recommendations. Details will be given to delegates

at the meeting and will be posted on the website.

It is crucially important for the future of mathematics in the UK that there is a broad and open debate on the issues and recommendations in the Report, leading to an agreed programme of actions involving us all. The mathematical societies, individually and as the Council for the Mathematical Sciences, will be keen to encourage and contribute to this.

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THE SMITH REPORT ON POST-14 MATHEMATICS EDUCATION

The report of Professor Adrian Smith's Inquiry into post-14 mathematics education was published on 24 February 2004. The Report, *Making Mathematics Count*, is available electronically from the Review website at www.mathsinquiry.org.uk.

The Society issued a press release welcoming publication of the Report, and stressing the importance of the issues raised in it for the future of the national mathematics base. It reiterated the Society's support for ACME (the Advisory Committee on Mathematics Education) and issues relating to the supply and professional

development of mathematics teachers. The Education Committee will be meeting specially to give detailed consideration to the conclusions and recommendations in the Report.

The Society's statements on the Smith Report will be available from the Society's website.

CAREERS IN MATHEMATICS

Included in the envelope with this *Newsletter* you should find a copy of a supplement to *The Independent* newspaper on careers in mathematics (UK-based members only). This was the outcome of an approach to the mathematical sciences societies (LMS, IMA and RSS) and is one in a series of such supplements in *The Independent*.

Careers in mathematics, and the importance of mathematics in many career paths, have been the focus of several recent activities. The President, Frances Kirwan, has provided an article for a course guide produced by *The Independent* and the Society has contributed to a similar publication by *The Guardian*.

The Council for the Mathematical Sciences (CMS) has been particularly concerned at the availability of good information for young people on careers involving mathematics and, for younger pupils, the degree to which careers in so many sectors require a solid mathematical education.

A CMS working party, involving Professor Chris Budd for the Society, has been working hard to progress this. Through collaboration with the Science Council it has successfully obtained a grant from the DfES to establish a core website offering careers advice, and is bidding for other grants to enable careers resources to be produced and/or brought up to date.

It is hoped that the careers website, at www.mathscareers.org.uk, will be live some time in April or early May.

We would welcome readers' ideas for increasing the information available to young people on careers involving mathematics, and particularly careers resources that can be considered for inclusion on the website. Please send these to the Executive Secretary, Peter Cooper (email: cooper@lms.ac.uk).

LONDON MATHEMATICAL SOCIETY MIDLANDS REGIONAL MEETING

University of Nottingham*, Wednesday 12 May 2004

Professor Eva Bayer (Lausanne Polytechnic, Switzerland)
Professor Jean-Louis Colliot-Thélène (Université Paris-Sud, France)

There will be a poster session for postgraduate students and a £100 prize. A conference dinner will be held after the meeting.

A workshop on *Quadratic Forms, Algebras with Involution and Algebraic K-Theory* will run from the morning of Thursday 13 May until noon on Saturday 15 May. There will be about ten one-hour invited talks as well as some shorter talks by young researchers in the field.

For further details, contact the scientific organisers: Professor Detlev Hoffmann (tel: +44-115 84 67142, fax: +44-115-9514951, email: Detlev.Hoffmann@nottingham.ac.uk) or Professor J.E. Cremona (tel: +44-115-9514920, fax: +44-115-9514951, email: John.Cremona@nottingham.ac.uk), both at the School of Mathematical Sciences, University of Nottingham, Nottingham NG7 2RD.

See also the web page www.maths.nott.ac.uk/personal/jec/qf2004.

There are limited funds available to contribute in part to the expenses of members of the Society or research students to attend the Society meeting on 12 May. Requests for support, including an estimate of expenses, may be addressed to the Programme Secretary at the Society (web: www.lms.ac.uk; email: grants@lms.ac.uk).

* Please keep an eye on the Society's website (www.lms.ac.uk) for the latest information.

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Charity registration number: 252660.

FOURTH EUROPEAN CONGRESS OF MATHEMATICS

Council has set aside a sum of money to be used for making grants to members of the London Mathematical Society who wish to attend the Fourth European Congress of Mathematics (4ecm). Eligible applicants are expected to make an application to the Royal Society in the first instance. The deadline for applications to the Royal Society is **1 June 2004**. Information and application forms can be found on the RS website (www.royalsoc.ac.uk).

Members who apply to the Royal Society and also wish to apply to the London Mathematical Society for a grant may simply submit copies of their Royal Society applications to the LMS. Members who are not eligible for a Royal Society grant may apply on forms obtainable from the LMS (oakes@lms.ac.uk).

Applications should be sent to Susan Oakes, The Administrator, London Mathematical Society, to arrive before **Friday 14 May 2004**. They will be considered by a Council Committee and the outcome (if necessary conditional on the outcome of an application to the Royal Society) will be made known to the applicant by the end of May.

SPITALFIELDS DAYS

In 1987, the London Mathematical Society instituted a series of occasional meetings called 'Spitalfields Days'. The name honours our predecessor, the Spitalfields Mathematical Society, which flourished from 1717 to 1845.

A Spitalfields Day is usually associated with a long-term symposium on some specialist topic at a UK university. One of the symposium organizers is asked to arrange a one-day meeting at which selected participants, often distinguished experts from overseas, will give survey lectures on topics in the field of the

symposium or other types of lecture accessible to a general mathematical audience. These meetings are publicized in the *Newsletter* and all members are invited to attend.

The standard grant for a Spitalfields Day is £500, and is intended to meet actual supplementary costs associated with the event (for example, cost of a subsidy for a lunch for participants and administrative costs). We would also encourage grant holders to make some of it available in the form of small (£50) travel grants to enable LMS members and research students to attend the event.

Anyone involved in running a symposium who would be interested in organizing a Spitalfields Day is invited to write to Dr S.A. Huggett, Programme Secretary at the Society (grants@lms.ac.uk). The format need not be precisely as described, but should be in a similar spirit.

MULTIDISCIPLINARY CRITICAL MASS IN MATHEMATICS

In recent years, the EPSRC Mathematical Sciences Programme has been building on existing multidisciplinary research activity in mathematics and providing funding to develop these into centres of critical mass of such activity. There is now the possibility of providing funding of up to £1M to support a fourth centre of multidisciplinary research that connects mathematics (including statistics) to another discipline or disciplines in the remit of the EPSRC (engineering, materials, IT & computing science, physics, chemistry, life sciences). Further information about the call can be found on the EPSRC website (www.epsrc.ac.uk).

Quantitative Finance

The aim of the initiative is to support innovative research that is relevant to the long-term busi-

ness needs of the finance and insurance sector. To help achieve this, the EPSRC is collaborating closely with the actuarial profession, with the aim of jointly funding research. Further information can be found on the EPSRC website (www.epsrc.ac.uk).

PETER A. LEES

Mr Peter Lees, who was elected a member of the London Mathematical Society on 20 November 1987, died on 9 January 2004, aged 53. He used mathematics professionally, and maintained a deep interest in, and gained great pleasure from, a variety of branches of mathematics throughout his life. He was well known for his love of Guinness.

JOHN TREVOR LEWIS

Professor John Lewis died on 21 January 2004, aged 71. He was born in Swansea and educated at Cardiff High School and the Royal Belfast Academical Institution. He then studied in Queen's University Belfast and was awarded a doctorate in applied mathematics in 1955. From 1956 to 1972, John Lewis was in Oxford where he supervised fifteen DPhil students. In 1972 he moved to Dublin to take up a Senior Professorship in the School of Theoretical Physics at DIAS and served as Director of the School from 1975 until his retirement in 2001.

In his doctoral thesis, John Lewis introduced what is now known as the Delgarno-Lewis method in quantum mechanics. Central topics in his work were dissipation in quantum mechanics and Bose-Einstein condensation. From 1988 onwards he did fundamental work on the measurement of internet traffic and in 1999 he founded a company, Corvil Ltd, to exploit this research commercially. *The Irish Times* described him as a theoretical physicist who revolutionized telecommunication.

ROBERT M. KAUFFMAN

Professor Robert Kauffman, who was elected a member of the London Mathematical Society on 8 May 1987, died on 8 February 2004, aged 62. Robert Kauffman received a PhD from Louisiana State University in 1965 under the direction of A J. Zettl. He taught for a number of years at Western Washington University and then the University of Alabama at Birmingham. He was a frequent visitor to the UK, particularly Cardiff, Birmingham, Sussex and, earlier, Dundee. He was three times an EPSRC Fellow. Kauffman's research interests were ordinary and partial differential equations, operator theory, differential geometry and number theory. His enthusiasm for teaching on all levels was well known. He was noted for the depth of his mathematical insight.

APPOINTMENT

Professor Noel Lloyd has been appointed as Vice-Chancellor and Principal at the University of Wales, Aberystwyth, as from 1 September 2004. At present he is Registrar and Secretary, a position that he has filled with distinction since 1999. He joined the staff at Aberystwyth in 1975 as Lecturer, was soon promoted to Senior Lecturer and Reader and then to a Chair in Mathematics in 1986. He had served as Head of the Mathematics Department, Dean of the Faculty of Science and as a Pro-Vice-Chancellor from 1997.

Professor Lloyd is a graduate from Cambridge University and prior to his move to Aberystwyth was a Research Fellow at St John's College. He works in ordinary differential equations and has retained his Professorship in Mathematics – now in the Institute of Mathematical and Physical Sciences. He was Editor of the Society's *Journal* from 1983-88.

ROLLO DAVIDSON TRUST

The trustees of the Rollo Davidson Trust have awarded Rollo Davidson Prizes for 2004 to: Ander Holroyd (University of British Columbia, Vancouver) for his novel contributions to different areas of probability including percolation in its many forms, and Itai Benjamini (Weizmann Institute Rehovot, Israel) for his work across probability including the analytic and geometric, particularly in the study of random processes associated with graphs. Further details of the Rollo Davidson Trust may be found at www.statslab.cam.ac.uk/Rollo/index.html.

VISIT OF PROFESSOR J. DOLBEAULT

Professor Jean Dolbeault, of CEREMADE (Paris, Dauphine), will be visiting King's College London, Sussex, Oxford, Bristol and Bath from 26 April - 9 May. He will give talks from the following topics:

- Entropy methods in nonlinear parabolic PDEs
- Multibubbling phenomena in supercritical problems
- Hardy-type inequalities for Dirac operators

His visit is partially funded by an LMS Scheme 2 grant. For more details, contact Professor R. Streater (raymond.streater@kcl.ac.uk).

VISIT OF PROFESSOR V. LOTOV

Professor Vladimir Lotov (Institute of Mathematics, Novosibirsk, Russia) will visit Heriot-Watt University from 18 April to 1 May. During his visit, he will give seminars on various aspects of asymptotic analysis of random walks at Heriot-Watt, Manchester, Sheffield and Cambridge. His visit is partially funded by an LMS Scheme 2 grant. For further information contact Professor S. Foss (foss@ma.hw.ac.uk).

VISIT OF DR G. PFEIFFER

Dr Goetz Pfeiffer (National University of Ireland, Galway) will be visiting the University of Birmingham from 26 April to 8 May, supported by an LMS Scheme 2 grant. He will be giving lectures on some of his recent work on the representation theory of Coxeter groups at the following places:

- 29 April – University of Newcastle *Counting transitive relations*
- 4 May – UMIST *Subgroups and cosets in Coxeter groups*
- 6 May – University of Birmingham *Counting transitive relations*

For further information contact Gerhard Roehrl (tel: 0121 414 7374, email: ger@for.mat.bham.ac.uk).

LMS POPULAR LECTURES

LMS Popular Lectures will be held in Manchester on 6 May and London on 11 June. The speakers are:

Professor Ken Binmore (University College London)
Big money mathematics

Professor Helen Byrne (University of Nottingham)
Just a spoonful of maths helps the medicine

Contact the local organisers: Manchester: Nige Ray (nige@ma.man.ac.uk); London: Susan Oakes (oakes@lms.ac.uk) for further details. Full details will be on the LMS website (www.lms.ac.uk).

Textbooks from Springer

V. I. Arnold
Lectures on Partial Differential Equations
Translated by R. Cooke
This book covers the most basic parts of the subject and confines itself largely to the Cauchy and Neumann problems for the classical linear equations of mathematical physics.
2004, X, 157 p. (Universitext) Softcover
€ 38.95; \$fr 73.00; £ 30.50 ISBN 3-540-40448-1

B. L. van der Waerden
Algebra
Volume I
1st ed. 1991, 2nd printing 2003, XIX, 285 p.
Softcover € 39.95; \$fr 75.00; £ 30.50
ISBN 0-387-48624-7

Volume II
1st ed. 1991, 1st softcover printing 2003, III, 284 p.
Softcover € 39.95; \$fr 73.00; £ 30.50
ISBN 0-387-48625-5

From the reviews: „This beautiful and eloquent text served to transform the graduate teaching of algebra, not only in Germany, but elsewhere in Europe and the United States...its simple but austere style set the pattern for mathematical texts in other subjects, from Banach spaces to topological group theory...it is, in my view, the most influential text in algebra of the twentieth century.“
Saunders MacLane, Notices of the AMS

V. A. Zorich
Mathematical Analysis I
2004, 2008, 574 p. (Universitext) Hardcover
€ 49.95; \$fr 88.50; £ 38.50 ISBN 3-540-40288-8

Mathematical Analysis II
2004, X, 687 p. (Universitext) Hardcover
€ 49.95; \$fr 88.50; £ 38.50 ISBN 3-540-40333-8

This two-volume work presents a thorough first course in analysis, leading from real numbers to such advanced topics as differential forms on manifolds, asymptotic methods, Fourier, Laplace, and Legendre transforms, elliptic functions and distributions.

N. Berline, E. Getzler, M. Vergne
Heat Kernels and Dirac Operators
The first edition of this book presented simple proofs of the Atiyah-Singer Index Theorem for Dirac operators on compact Riemannian manifolds and its generalizations, using an explicit geometric construction of the heat kernel of a generalized Dirac operator; the new edition makes this popular book available to students and researchers in an attractive softcover.
2004, X, 362 p. (Graduate Texts in Mathematics) Softcover € 48.95; \$fr 88.50; £ 38.50
ISBN 3-540-20802-2

R. S. Irving
Integers, Polynomials, and Rings
The author's primary goal is to have the reader learn to work with mathematics through reading, writing, speaking, and listening. The choice of content is important, but he regards it as a vehicle, not as an end in itself.
2004, Approx. 300 p. 3 illus. (Undergraduate Texts in Mathematics) Hardcover
€ 48.95; \$fr 123.50; £ 54.00 ISBN 0-387-48027-3

Also available in softcover
€ 38.95; \$fr 73.00; £ 30.50 ISBN 0-387-29173-0

D. Husemöller
Elliptic Curves
This book is an introduction to the theory of elliptic curves, ranging from its most elementary aspects to current research. This new edition contains three new chapters and the addition of two appendices.
2nd ed. 2004, XII, 487 p., 42 illus. (Graduate Texts in Mathematics, Vol. 111) Hardcover € 84.95; \$fr 144.00; £ 63.50
ISBN 0-387-95490-2

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HARDY FELLOW 2004

Professor Terence Tao

Professor Terence Tao, of the University of California Los Angeles, will visit the UK as the Hardy Fellow from April to June this year. He will hold his Fellowship at Edinburgh University, where his host will be Professor Tony Carbery. During his

stay, he will be visiting various institutions, as in the table below. There has been more demand for visits than can be accommodated: it is hoped that members of the Society and mathematicians throughout the country will find the opportunity to hear Professor Tao when he is speaking at a neighbouring University. Further details about each talk can be obtained from the local host.

Date	Venue	Host	Lecture
23 April	York	S. Pott (sp23@york.ac.uk)	The nonlinear Fourier transform
11 or 12 May	Dublin	R.M. Timoney (richardt@maths.tcd.ie)	Honeycombs and sums of Hermitian matrices
14 May	Edinburgh	Edinburgh Mathematical Society (tom@maths.ed.ac.uk)	Honeycombs and sums of Hermitian matrices
17 May	Bath	J.F. Toland (jft@maths.bath.ac.uk)	The global behaviour of nonlinear Schrödinger equations
19 May	Warwick	P.M. Topping (topping@maths.warwick.ac.uk)	Honeycombs and sums of Hermitian matrices
21 May	Oxford	T.J. Lyons (tlyons@maths.ox.ac.uk)	The nonlinear Fourier transform
16 June	Cambridge	T. Körner (t.w.korner@dpmms.cam.ac.uk)	Low regularity solutions of the Kdv equation
18 June	London	London Mathematical Society (oakes@lms.ac.uk)	The Kakeya problem and arithmetic combinatorics

THE NATURE OF MATHEMATICAL PROOF

A Royal Society Discussion Meeting on *The nature of mathematical proof* will be held on Monday 18 and Tuesday 19 October at the Royal Society. The organisers are Professor Alan Bundy, Professor Donald MacKenzie, Sir Michael Atiyah FRS and Professor Angus MacIntyre FRS.

The increasing use of computers both within mathematics and to automate

mathematical reasoning has raised new questions about the nature of mathematical proof. This meeting will present and contrast the different viewpoints, including: experimental mathematics vs mathematical rigour, automated vs human proofs and formal vs rigorous arguments. What role does proof play in the way mathematicians learn and think? Visit www.royalsoc.ac.uk/events/ for further information and to register for this event.

READING COMBINATORICS COLLOQUIUM

The Reading One-Day Combinatorics Colloquium will take place on Wednesday 12 May from 10.30 am to 5.30 pm in the Mathematics Department at Reading University. The speakers and titles will be:

- I. Anderson (Glasgow University) *Primitive roots in the construction of designs*
- R.A. Bailey (QMUL) *Designs on association schemes*
- P. Cameron (QMUL) *The random graph and the Urysohn metric space*
- M. Grannell (Open University) *Recent results on 4-cycle systems*
- G. Gutwin (RHUL) *Lower bounds for the*

- competitive ratio in batched bin packing*
 - R. Johnson (LSE) *Long cycles in the middle two layers of the discrete cube*
 - P. Russell (Cambridge University) *Independence of partition regular equations*
 - D.R. Woodall (Nottingham University) *Paradoxes*
 - V. Zverovich (University of West of England) *Graph-theoretic problems and computer system graph-lab*
- Everyone is welcome to attend. Funding has been received from the British Combinatorics Committee, the London Mathematical Society and Reading University Mathematics Department. For further information contact Anthony Hilton (a.j.w.hilton@reading.ac.uk).

LONDON MATHEMATICAL SOCIETY NORTHERN REGIONAL MEETING

University of Newcastle, Friday 2 July 2004

Professor M. Gromov (IHES/Courant Institute)

Professor R. Grigorchuk (Steklov Institute/Texas A&M)

The London Mathematical Society Northern Regional Meeting will be held on Friday 2 July in the School of Mathematics and Statistics, Newcastle University. The speakers are R.I. Grigorchuk and M. Gromov. There will be a conference dinner following the meeting.

The meeting will be preceded by a workshop on *Geometric Group Theory*, with emphasis on formal languages, logic and equations, from Tuesday 29 June to Thursday 1 July. There is a £15 registration fee for the workshop.

Visit the website www.mas.ncl.ac.uk/~najd2/lmsnorth/ to register and for further information, or contact the conference organisers (email: lms.north@ncl.ac.uk or fax: +44-191 222 8020). There are limited funds available to contribute in part to the expenses of members of the Society or research students to attend the Society meeting on 2 July. Requests for support, including an estimate of expenses, may be addressed to the Programme Secretary at the Society (web: www.lms.ac.uk; email: grants@lms.ac.uk).

19TH BRITISH TOPOLOGY MEETING

The 19th British Topology Meeting will be held at the University of Glasgow from 13-14 September. The speakers arranged so far are:

- Hansjörg Geiges (Universität Köln)
- Andrey Lazarev (Bristol University)
- Ieke Moerdijk (Utrecht University)

Funding has been obtained from the Edinburgh Mathematical Society and the London Mathematical Society. For further information contact the organisers: Andrew Baker (a.baker@maths.gla.ac.uk), Tom Leinster (T.Leinster@maths.gla.ac.uk) and Richard Steiner (R.Steiner@maths.gla.ac.uk).

IWOTA

The next International Workshop on Operator Theory and Applications (IWOTA) is being organised at the University of Newcastle, Newcastle upon Tyne, where it will be held from Monday 12 - Friday 16 July. The purpose of IWOTA 2004 is to bring together mathematicians and engineers interested in operator theory and its applications. Adhering to the tradition of recent meetings, the focus is primarily on a few special themes, suggested by research existing at the University of Newcastle and other British universities:

- applications of operator theory to function theory, including control theory,
- multivariate operator theory and operator model theory,
- spectral theory of non-selfadjoint operators, including differential operators,
- operator spaces and their applications.

To get on the mailing list for IWOTA 2004, visit the web page www.ncl.ac.uk/iwota/ which contains further information on the conference. An email will then be sent to you containing registration details. The meeting is supported financially by the LMS and EPSRC, and all are welcome to attend. For further information please contact the organisers at iwota@ncl.ac.uk.

UNIVERSITY OF WALES MATHEMATICS COLLOQUIUM

The annual intercollegiate colloquium of mathematicians of the University of Wales will take place at Gregynog Hall, near Newtown, Powys, from 24-26 May. The two main guest speakers are: Alistair Gillespie (Edinburgh) and Andrew Stuart (Warwick). LTSN Maths, Stats and OR Network will give a presentation about good practice in assessment of mathematics, led by Cliff Beevers. There will be other talks given by invited visiting speakers and by members of the University of Wales.

Accommodation at Gregynog is very limited. Further details may be obtained from the organizers at the University of Wales, Aberystwyth: R.J. Douglas (rsd@aber.ac.uk) and V.C. Mavron (vcm@aber.ac.uk). The meeting is partially supported by the London Mathematical Society and the Gregynog colloquium fund.

NBFAS

A meeting of the North British Functional Analysis Seminar (NBFAS) will be held at the Department of Mathematics at Queen's University Belfast from 11.30 am to 3 pm on Monday 5 April, and precedes the opening of the BMC. Talks will be given by Professor Erling Størmer of the University of Oslo, Norway. He will be speaking on *Entropy in operator algebras* and *Positive linear maps of operator algebras*. The meeting is supported financially by the LMS and all are welcome to attend. For further information, contact Dr Michael Dritschel, University of Newcastle (M.A.Dritschel@ncl.ac.uk).

HOMOGENIZATION AND SHAPE OPTIMIZATION

A summer school on Homogenization and Shape Optimization will be held at the Department of Mathematics, Faculty of Sciences, University of Lisbon, from 13-17 September. The objectives of the summer school are bridging the gap between on the one hand graduate or upper undergraduate mathematics and engineering students, and on the other some of the modern branches of scientific research in the areas of homogenization and of shape optimization, as well as applications to engineering science. The speakers are:

- G. Allaire (École Polytechnique, France)
- C. Barbarosie (FCUL, Portugal)
- M. Bendsoe (Technical University of Denmark)

- C. Conca (Universidad de Santiago de Chile)
- G. Francfort (Université de Paris XIII)
- J. Guedes (IST, Portugal)
- F. Murat (CNRS, France)
- H. Rodrigues (IST, Portugal)
- L. Tartar (Carnegie Mellon University, USA)

The deadline for registration is **Friday July 23**. The organising committee is: Luísa Mascarenhas, Anca-Maria Toader and Luís Trabucho. Visit the website for more information (www.ptmat.fc.ul.pt/~hso2004/).

GROUPS IN GALWAY

The annual Groups in Galway conference will be held this year from 14-15 May at the National University of Ireland, Galway. Visit <http://stokes.nuigalway.ie/~dane/gig04.htm> for the list of speakers and information on

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Lectureship in Mathematics

Salary range £25,430 – £35,813 (pay award pending) pa inc.

The Department of Mathematics is seeking to appoint a Lecturer to start on or before 1 September 2004. The Department is launching an MSc in Applicable Mathematics in 2004, and this is a new post associated with that initiative.

Applications are invited from candidates with proven research ability in Mathematics. We particularly encourage applicants whose research is in computational aspects of mathematics, such as Analysis of Algorithms or Numerical Analysis. Interest in applications of Mathematics to the Social Sciences would also be an asset.

For further details please see www.lse.ac.uk/jobsatLSE. Alternatively, please phone 020 7955 6183 or email recruitment@lse.ac.uk quoting reference 07a/03/AC. Further information about the Department can be found at www.maths.lse.ac.uk/lectureship.html.

Closing date for completed applications: **23 April 2004**.

timetable and venue as it becomes available. Conference organisers are John Burns (john.burns@nuigalway.ie) and Dane Flannery (dane.flannery@nuigalway.ie).

WIDENING PARTICIPATION IN MSOR

The next LTSN Maths, Stats & OR Network one-day workshop will be held on 19 May at Aston University on 'Widening Participation in MSOR'. Although widening participation has assumed great importance in recent years, the MSOR community has for a long time had to provide for a wide range of ability and motivation in its students. Consequently, there is already a great deal of good practice in encouraging and supporting widening participation in MSOR in higher education, some of which is described in the recently-published booklet *Widening Participation in Mathematics, Statistics and Operational Research*. However, there are still issues and problems in this area, notably in retention and in realizing the potential of all students whatever their background. This one-day workshop, while sharing good practice, will also take a critical look at some of the problems the community still faces and look for ways forward to address them. Therefore it will seek to enhance as well as disseminate practice. The outcomes will be published by the LTSN Maths, Stats & OR Network. More details and a registration form are on the mathstore website at <http://ltsn.mathstore.ac.uk/workshops/wp2004>.

EUROSCIENCE OPEN FORUM 2004

The European Mathematical Society will be participating in the EuroScience Open Forum 2004, a pan-European forum for

discussion about science and technology in society. The intention of the forum is to engage politicians, journalists and the general public in the debate and, it is hoped, to persuade them that investment in the sciences, including mathematics, is a good thing. The Forum takes place in Stockholm from 25-28 August. The webpage is www.esof2004.org.

The EMS Vice-President, Luc Lemaire, will deliver a plenary lecture and the EMS will also run a session devoted to the development of new mathematics in the context of applications. It is intended to focus on areas where the applications have stimulated the development of new mathematics. The speakers will be Martin Groetschel (Berlin) *Discrete optimisation and telecommunications*, Gérard Huet (INRIA) *Proof theory and logic in computer science*, Terry Lyons (Oxford) *Financial mathematics* and Simon Tavaré (USC) *Mathematical biology*.

David Salinger
EMS Publicity Secretary

CONFERENCE ON THE LIFE AND WORK OF HENRI POINCARÉ

A meeting to celebrate the 150th anniversary of the birth of Henri Poincaré (1854-1912) will be held at The Open University and Kent's Hill Conference Centre, Milton Keynes, from Friday 21 May to Sunday 23 May. The programme is as follows:

Friday – Open University

Poincaré and Poincaré's mathematics today
Robert Mackay, FRS (Warwick) *Poincaré's second species orbits*
Sir Michael Berry, FRS (Bristol) *Divergent series before and after Poincaré*
Nigel Hitchin, FRS (Oxford) *The geometrization of manifolds*

Jean Mawhin (Louvain) *Henri Poincaré. A life in the service of science*

Saturday – Kent's Hill Conference Centre

The legacy of Poincaré
Jeremy Gray (OU) *Poincaré between Leibniz and Kant*
Gerhard Heinzmann (AHP, Nancy) *Why Poincaré should be a standard author in philosophy*
Philippe Nabonnand (AHP, Nancy) *The Lie-Poincaré relationship*
Scott Walter (AHP, Nancy) *Poincaré's physical rehabilitation of mathematics*
Olivier Darrigol (CNRS, Paris) *The mystery of focus in the Poincaré-Einstein connection*
June Barrow-Green (OU) *G.D. Birkhoff: 'An intellectual disciple of Poincaré'*

Sunday – Kent's Hill Conference Centre

Poincaré and topology
Klaus Volkert (Frankfurt) *Poincaré's route to the Poincaré conjecture*
Moritz Epple (Frankfurt) *From Analysis Situs to Topologie: The early reception of Poincaré's topological work among German-speaking mathematicians*
José Ferreirós (Seville) *The early days of point-set topology, and Poincaré*

This is a joint meeting of the Centre for the History of the Mathematical Sciences, The Open University, Milton Keynes, and Archives et Centre de Recherche Henri Poincaré, Université Nancy 2, France. For further information, including how to book accommodation at Kent's Hill, contact Jeremy Gray, Centre for the History of the Mathematical Sciences, The Open University, Milton Keynes MK7 6AA (j.j.gray@open.ac.uk).

PANDA

The first PANDA (Pattern Formation, Nonlinear Dynamics and Applications) meeting of the year will be held on Friday 14 May in the Department of Applied Mathematics, University of Leeds. The

theme of the meeting will be 'Dynamics in Mathematical Biology'. The two pedagogical review lectures will be:

- Carmen Molina-Paris (Leeds) *Mathematical model of T-cell activation*
- Stephen Coombes (Nottingham) *Patterns, bumps and waves in neural field theories*

Contributed research talks follow in the afternoon. There are still have a couple of slots available: if you would like to speak email Alastair Rucklidge (A.M.Rucklidge@leeds.ac.uk) with a title. Postdocs and research students are warmly encouraged to attend, especially as speakers, and will be given preference in financial support. Further details, including programme and travel information can be found on: www.maths.leeds.ac.uk/~alastair/04_lms/. For further information contact Alastair Rucklidge (A.M.Rucklidge@leeds.ac.uk).

MAGNETOHYDRODYNAMICS OF STELLAR INTERIORS PROGRAMME

These Isaac Newton Institute workshops are being organised by Professor D.W. Hughes (Leeds), Professor R. Rosner (Chicago), Professor N.O. Weiss (Cambridge):

- 6-17 September Magnetohydrodynamics of stellar interiors
- 11-15 October *Large-scale computation in astrophysics*
- 8-12 November *TachoCline dynamics*
- 13-17 December *Stellar dynamos* (Satellite Meeting in Leeds)

Refer to the website www.newton.cam.ac.uk/programmes/MSI/ for full details on how to apply for these workshops. Supported by the European Commission, Sixth Framework Programme – Marie Curie Conferences and Training Courses – MSCF-CT-2003-503674.

LMS PROGRAMME AND CONFERENCE FUND

Programme Committee has awarded grants to support the following conferences and meetings. These are open to all members. If you wish to attend, or would like more information, please contact the organiser.

Date/Venue	Title	Organiser
16-17 April 2004 Birmingham	Howard Hoare Symposium	W.N. Everitt w.n.everitt@bham.ac.uk
16-17 April 2004 ICMS, Edinburgh	8th UK Meeting on Integrable Models, Conformal Field Theory and Related Topics	R. Weston r.a.weston@ma.hw.ac.uk
19-22 April 2004 East Anglia	British Applied Mathematics Colloquium, 2004	J-M. Vanden-Broeck j.vanden-broeck@uea.ac.uk
10 May 2004 Warwick	Dislocation Patterns in Plastic Materials	F. Theil theil@maths.warwick.ac.uk
24-26 May 2004 Gregynog Hall, Powys	University of Wales Gregynog Mathematics Colloquium	V.C. Mavron vcm@aber.ac.uk
5 June 2004 Manchester	Turing 2004: a celebration of his life and achievements	J. Paris jeff@maths.man.ac.uk
24-26 June 2004 ICMS, Edinburgh	Statistical Mechanics: Conference in honour of the 75th birthday of Oliver Penrose	A. Lacey a.a.lacey@ma.hw.ac.uk
1 July 2004 Keele	Professor Graham Wilks Retirement Meeting	A.J. Willmott a.j.willmott@keele.ac.uk
1-2 July 2004 Bristol	The Fascination of Fluid Mechanics	H. Bredmose h.bredmose@bristol.ac.uk
12-16 July 2004 Stirling	10th International Conference on Algebraic Methodology and Software Technology	S. Maharaj savi@cs.stir.ac.uk
5-7 August 2004 Aberdeen	Discrete Groups and Hyperbolic Manifolds	R.J. Archbold r.archbold@maths.abdn.ac.uk
9-11 August 2004 Bristol	Non-Uniqueness of Solutions to the Navier-Stokes Equations and their Connection with Laminar-Turbulent Transition	R.R. Kerswell r.r.kerswell@bris.ac.uk
6-8 September 2004 Leeds	British Logic Colloquium 2004	H.D. Macpherson h.d.macpherson@leeds.ac.uk

Date/Venue	Title	Organiser
9-10 September 2004 Strathclyde	Numerical Analysis of Differential Equations (13th Scottish Computational Mathematics Symposium)	D.B. Duncan d.b.duncan@ma.hw.ac.uk
13-14 September 2004 Glasgow	19th British Topology Meeting	A. Baker a.baker@maths.gla.ac.uk
20 September 2004 De Morgan House	One Day Function Theory Meeting	J.K. Langley jkl@maths.nott.ac.uk
20 November 2004 QUB	Belfast Functional Analysis Day 2004	M. Mathieu m.m@qub.ac.uk
22-24 July 2005 Gregynog Hall, Powys	Differential and Integral Operators in L^p Space – to mark the 65th birthday of Professor W.D. Evans	B.M. Brown malcolm@cs.cf.ac.uk
23-25 July 2005 Cardiff	Conference to mark the 60th birthday of Professor E.B. Davies, FRS	B.M. Brown malcolm@cs.cf.ac.uk

LMS SPITALFIELDS DAY Random Matrix Theory and the Birch and Swinnerton-Dyer Conjecture

Understanding the ranks of elliptic curves is a goal that has long been pursued by number theorists with an intensity no doubt fuelled by the conjecture of Birch and Swinnerton-Dyer in the 1960s. This conjecture, the resolution of which is one of the Clay Mathematics Institute's million dollar problems, proposes a way for determining the rank by using an L-function associated to the elliptic curve. Recently random matrix theory, an area of mathematics previously utilised more often by physicists, has achieved resounding success by suggesting answers to questions long puzzling analytic number theorists about the statistics of zeros and value distributions of L-functions. Now it seems that random matrix theory, combined with very detailed knowledge of the various components of Birch and Swinnerton-Dyer's formula, can provide new insight into the ranks of elliptic curves.

Trying to forge this link between random matrix theory and elliptic curves was the purpose of a Clay Mathematics Institute Special Week on Ranks of Elliptic Curves and Random Matrix Theory held at the Isaac Newton Institute for Mathematical Sciences. The week opened with the London Mathematical Society Spitalfields Day on 9 February featuring a joint address by Professor Bryan Birch and Sir Peter Swinnerton-Dyer reminiscing on the roots of



Peter Swinnerton-Dyer

Bryan Birch

their famous conjecture and drawing a crowd of around eighty people. This was followed by talks by Professors Alice Silverberg and Christophe Delaunay speaking on calculating ranks of elliptic curves and various components of the Birch and Swinnerton-Dyer formula and the day ended with Professors Michael Rubinstein and Chantal David explaining the connection with random matrix theory, its previous successes and promises for the future.

The Spitalfields Day served very effectively both as an overview of a subject causing much interest in the number theory community, as well as a lead-in to the intense research activities during the weeklong workshop.

Nina Snaith
Bristol University

REAL SOCIEDAD MATEMÁTICA ESPAÑOLA

The Society has recently established a Reciprocity Agreement with the Spanish Mathematical Society (RSME). Under this agreement, members of the London Mathematical Society who are not resident in Spain may become members of the RSME, and receive benefits of that membership, at half the normal membership rate.



The following information has been supplied by Professor Patricio Cifuentes, the Honorary Secretary of the RSME.

The Society was founded in 1911. The objectives of the RSME as stated in its Statutes are to promote and explain the Mathematical Sciences and to extend mathematical research and mathematical teaching at all levels. Since 1963 it has organized the Spanish Mathematical Olympiad.

The Society has currently over 1600 members, most of them university Faculty and students but

also High School teachers and mathematicians or engineers working in industry. About 250 of its members are corporate members ranging from Mathematics departments to Secondary institutions. Applications for membership should be directed to the Secretary, Facultad de Matemáticas, despacho 525, Universidad Complutense de Madrid, Avda. Complutense, s/n, 28040 Madrid.

The Governing Board of the Society comprises the President, two Vice-Presidents, the Treasurer, the Secretary, the General Editor, and ten delegates. The President, Treasurer and the ten delegates are elected by the members and one third renewed each year. The General Assembly (Junta General) of the Society meets once a year with the main purpose of approving the Society's budget. All members of the Society are entitled to attend and vote in the General Assembly.

The Society currently publishes two periodicals. La Gaceta de la RSME is a journal published in three issues per year and is devoted to both review articles in mathematics that can be understood at the level of university students and also articles on mathematics related issues such as education, history, news, etc. Matemáticas en Breve, which appears four times per year, is the Society's newsletter. Both are written in Spanish and members of the Society receive both periodicals as part of their membership benefits.

The Society organizes a general mathematical conference once every 18 months. The most recent one was organized in June 2003 as a joint meeting with the American Mathematical Society. The next is programmed to be in Valencia in February 2005, and will be joint with the other three Spanish societies. The RSME also organizes scientific workshops and partially supports several specialized meetings during the year.

The RSME is playing an important role on the committee that is actively organizing the International Congress of Mathematicians that will be held in Madrid in August 2006.

For more information on the RSME please consult the web page of the Society at www.rsme.es.

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RECORDS OF PROCEEDINGS AT MEETINGS

ORDINARY MEETING

held on *Friday 20 February 2004* at University College London. Over 60 members and visitors were present for all or part of the meeting.

The meeting began at 3:30 pm, with Professor F.C. KIRWAN, FRS, President, in the Chair. One person was elected to Ordinary Membership: A.M. Makroglou; four people were elected to Associate Membership: V.R. Easson, S.N. Kadir, F. Shaikh, J.R. Welham; and two people were elected to Reciprocity Membership: R. Boone, C.W. Stark (both of the American Mathematical Society).

The Records of the Proceedings of the Society Meetings held on 24 October and 21 November 2003 were signed as a correct record.

Dr G. STALLARD introduced a lecture given by Professor D. Schleicher on 'Understanding Complex Dynamical Systems and their Parameter Spaces'.

After tea, Dr G. Stallard introduced the Mary Cartwright Lecture given by Professor M. Rees, FRS, on 'The Topographer's View of Parameter Spaces'.

After the meeting, a reception was held at De Morgan House, followed by a dinner at Poons Restaurant.

REPORT ON THE MARY CARTWRIGHT LECTURE

Friday 20 February 2004

The Mary Cartwright Lecture is an annual event that was established by the LMS Women in Mathematics Committee in 2000, two years after the death of Mary Cartwright at the age of 97. Mary Cartwright was a well-known and distinguished mathematician; she was President of the LMS from 1961-1963 and was awarded the Society's De Morgan medal in 1968. She is perhaps best known

for her joint work with Littlewood on the van der Pol equation.

The Mary Cartwright Lecture is given by an eminent woman mathematician – this year it was given by Professor Mary Rees from the University of Liverpool. This was a very appropriate choice as Mary Rees was elected as a Fellow of the Royal Society in 2002; the first woman mathematician to become an FRS was Mary Cartwright. Mary Rees and Mary Cartwright also share a common field of interest as the research of both is in the area of complex analysis.

Mary Rees works in the modern area of complex dynamics which is concerned with the behaviour of meromorphic functions under iteration. She is particularly interested in looking at parameter spaces for rational maps – given a family of rational maps that depend on one or more parameters, how does the iterative behaviour of the maps vary with the parameters?

A huge amount of effort has been spent on studying the family of maps defined by $p_c(z) = z^2 + c$. The famous Mandelbrot set is the set of values of the parameter c for which the critical value c remains bounded under iteration. The hyperbolic components of the parameter space are maximal open sets associated with particular types of attracting behaviour. For example, the main cardioid of the Mandelbrot set consists of the values of c for which the map p_c has an attracting fixed point.

Mary has been working on the much harder problem of describing the hyperbolic components of the parameter space of a family of rational maps that depend on two parameters, and has recently published an impressive monograph 'Views of Parameter Space: Topographer and Resident' (*Astérisque* 288, 2003) describing her results in this area. Her lecture was a welcome chance to gain some insight into what she has been doing, although it was clear that there was a lot of hard mathematics that was being thoughtfully hidden from us!

The world of parameter spaces was introduced for us by the first speaker of the afternoon, Professor Dierk Schleicher from the new International University of Bremen. Having overcome some technical problems with connecting his laptop to UCL, we were treated to many beautiful pictures of (amongst other things) the Mandelbrot set and some associated Julia sets. We also saw how these ideas link

into Newton's method, laminations, spider theory and Dierk's own work on parameter space for the family of exponential maps.

The lectures were enjoyed by a good audience that included Mary's father, David Rees (also an FRS), and mother, Joan Rees (who wrote the obituary of Mary Cartwright that appeared in *The Independent*).

The two lectures formed part of a meeting of the LMS held at UCL on 20 February. The meeting was chaired by the new President of the LMS, Frances Kirwan – the only woman President that the LMS has had apart from Mary Cartwright. The meeting was followed by a reception at De Morgan House and then dinner at Poons Restaurant: Dierk Schleicher was suitably impressed by his first experience of the hospitality and efficiency of the LMS.

Gwyneth Stallard
Open University



"This is the part I always hate."

© Sidney Harris

Isaac Newton Institute for Mathematical Sciences, Cambridge

MAGNETOHYDRODYNAMICS OF STELLAR INTERIORS

(6 – 17 September 2004)

Supported by the European Commission, Sixth Framework Programme –
Marie Curie Conferences and Training Courses - MSCF-CT-2003-503674

in association with the Newton Institute programme entitled
Magnetohydrodynamics of Stellar Interiors (6 September – 17 December 2004).

Organisers: David Hughes (*Leeds*), Robert Rosner (*Chicago*) and Nigel Weiss (*Cambridge*).

Theme of conference: Magnetic activity in a star like the Sun gives rise to dark spots, bright flares, mass ejections, dramatically enhanced radiation (from the radio to the EUV and X-ray), and copious production of highly accelerated particles, all of which are caused by fields generated in the star's interior. The course will cover the interaction between convection, rotation and magnetic fields in solar-type stars with deep outer convection zones. The aim will be to confront theory with observations. This is timely because new observations (from space and from the ground) are revealing fine details of surface features, while helio- and astero- seismology provide a means of probing stars' internal structure. Meanwhile, theoretical models are becoming more realistic and sophisticated, and the availability of ever more powerful computers has at last made it feasible to model nonlinear processes in sufficient detail. These results are explained by reference to precise mathematical models, describing the essential processes that are involved, and there is a strong overlap with nonlinear dynamics, including bifurcation theory and pattern formation.

The programme will contain lectures by leading figures that will cover a full range of theoretical topics, including solar magnetic fields, stellar activity, helioseismology and asteroseismology, protostellar activity, brown dwarfs, magnetoconvection, magnetoturbulence, shear and differential rotation, dynamos, stellar magnetic activity, cycles and grand minima, together with a survey of relevant observations and experiments. There will also be opportunities for further shorter presentations.

Invited speakers: Fausto Cattaneo (*Chicago*), Andrew Collier Cameron (*St Andrews*), Stephan Fauve (*Paris*), Gary Glatzmaier (*Santa Cruz*), Douglas Gough (*Cambridge*), Lee Hartmann (*CfA*), Keith Moffatt (*Cambridge*), Michael Proctor (*Cambridge*), Robert Rosner (*Chicago*), *Göran Scharmer (*Stockholm*), Jack Thomas (*Rochester*), Michael Thompson (*London/Sheffield*), Alan Title (*LMSAL*), Steve Tobias (*Leeds*).

(*to be confirmed)

Location and cost: The EuroConference will take place at the Newton Institute and accommodation for participants will be provided in single study bedrooms with shared bathroom at Wolfson Court. The conference package, costing £850, includes accommodation, breakfast and dinner from dinner on Sunday 5 September to breakfast on Saturday 18 September, and lunch and refreshments during the days that lectures take place.

Further information and applications forms are available from the web at:
www.newton.cam.ac.uk/programmes/MSI/msiw01.html.

Completed application forms should be sent to Tracey Andrew, Isaac Newton Institute, 20 Clarkson Road, Cambridge CB3 0EH, or via email (t.andrew@newton.cam.ac.uk).

Closing date for the receipt of applications is **30 April 2004**.

NOTES FROM A FORDER LECTURER

When Henry George Forder first arrived from England in 1934 to take up his chair in what was then Auckland University College, it was as the sole professor, with just one lecturer, Keith Bullen, to assist him. By his retirement in 1955, the College boasted six staff, Forder had built up an outstanding library, and he had attracted the first few intrepid mathematical visitors to New Zealand. All of which is a far cry from the modern Auckland, whose thriving mathematics department, with a staff of over 50, is very much part of the international circuit.

Something of the changes which have taken place in New Zealand can be judged by the fact that during his whole 21-year tenure, Forder only twice travelled to meet colleagues from elsewhere in the country. Forder lecturers, on the other hand, have to organise themselves so as to give lectures at all seven New Zealand universities in the space of 3-4 weeks. This somewhat daunting undertaking is, fortunately, amply aided by immense New Zealand hospitality. As here, each institution has its own unique character, but everywhere international contacts are strong and most mathematicians travel regularly overseas.

Forder lecturers traditionally give some public lectures and I have to thank various of my hosts, particularly Graeme Wake in Christchurch, for organising very well attended evening events and local newspaper and radio coverage. Sales of *Indra's Pearls* appear to be up in the southern hemisphere and a pleasing Kleinian fractal appeared on the cover of the December 2003 *Canterbury Mathematics Association Newsletter*.

Despite so many years in his adopted country, Forder's loyalty remained with the LMS. On his death in 1981, he made the very generous bequest which now funds the lectureship. This occasioned a certain amount of discussion during my travels: it is a tribute to the growth and development of the New Zealand mathematics scene that only 25 years later, it is almost impossible to imagine such a bequest not being made directly to the NZMS. There was much talk about the recently founded New Zealand Institute for Mathematics and its Applications, whose logo is an elegant mathematical version of the graceful and ubiquitous tree fern. Unlike most of the institutes now springing up around the world, NZIMA does not have any fixed location, but exists as a moving organism with maximum flexibility to promote mathematics in any form. Perhaps this is wise: a hot topic was which of New Zealand's spectacular tourist spots would be the venue for the next conference.

Had I more space, I would rhapsodise at length about the natural wonders of this extraordinarily beautiful and unique country. Mathematics of all kinds is flourishing and I would encourage anyone who has the chance to go there to do so, possibly taking advantage of the NZIMA programmes, about which you can find more at www.nzima.auckland.ac.nz.

Caroline Series
University of Warwick



WARWICK UNIVERSITY MATHEMATICS INSTITUTE

SYMPOSIUM 2003/2004

Noncommutative Algebra and its Applications

Organisers: C. R. Hajarnavis and D. Rumynin

Symposium Workshops

- 14–18 June 2004 *Noncommutative algebra and algebraic geometry*
Organisers: C. Ingalls and M. Reid
- 24–26 June 2004 (to be held at the University of Wales at Swansea) *Hopf algebras*
Organiser: T. Brzezinski
- 5–16 July 2004 *Noncommutative algebra*
Organisers: C. R. Hajarnavis and D. Rumynin

Workshops

- 15–17 April 2004 *Computation for multiscale problems in physics*
Organiser: P. Plechac
- 18–21 May 2004 *Random matrices and probability*
Local Organiser: N. O'Connell (This is a satellite workshop of the Isaac Newton Institute programme on 'Random Matrix Approaches in Number Theory'.)

SYMPOSIUM 2004/2005

The Mathematics of Quantum Systems

Organiser: G. Friesecke

Symposium Workshops

- 31 August–5 September 2004 *Large many-body systems*
- 6–12 September 2004 *Quantum dynamics and quantum transport*
- 13–15 December 2004 *Mathematical challenges in quantum chemistry*
- 15–19 March 2005 *Quantum lattice models*
- 4–9 April 2005 *Spectral theory*
- 11–13 April 2005 *Random matrices and random Schrödinger operators*

Additional topics will include the interaction quantum theory – geometry as well as specialized topics of current interest (e.g. Reduced density matrices and contracted Schrödinger equations, nonadiabatic quantum dynamics,...).

Scientific Committee: E.B. Davies (King's), L. Erdős (Georgia Tech/University of Munich), W.D. Evans (Cardiff), G. Friesecke (Warwick), Y. Fyodorov (Brunel), J.P. Keating (Bristol), E. Sere (Paris IX & École Polytechnique), H. Spohn (Technical University Munich), R.S. MacKay (Warwick), P.R. Taylor (Warwick/Scientific Computing and Chemistry).

Interdisciplinary Programme for Cellular Regulation (IPCR)

This major new interdisciplinary research initiative at Warwick, funded by EPSRC and BBSRC, includes a series of seminars and conferences at the interface of mathematics, statistics and biology. The programme organisers are: N.J. Burroughs, D.A. Rand (Mathematics) and A.J. Millar (Biology). See the website www.maths.warwick.ac.uk/ipcr for details.

For further information contact Mathematics Research Centre, University of Warwick, Coventry CV4 7AL (email: mrc@maths.warwick.ac.uk; tel: +44 (0)24 7652 4403; fax: +44 (0)24 7652 3548 www.maths.warwick.ac.uk/events.html).

Please note that the Mathematics Institute at Warwick has moved to a new building on the Central Campus of the University (see www.maths.warwick.ac.uk/gethere/index.html).

CALENDAR OF EVENTS

This calendar lists Society meetings and other events publicised in the Newsletter. Further information can be obtained from the appropriate LMS *Newsletter* whose number is given in brackets. A fuller list of meetings and events is given on the Society's website (www.lms.ac.uk/meetings/calendar.html).

APRIL 2004

- 5 North British Functional Analysis Seminar, Queens University Belfast (325)
- 5-7 Modelling in Industrial Maintenance and Reliability V, IMA Conference, Salford University (319)
- 5-8 BMC, Queen's University, Belfast (315)
- 13-16 Maths Takes Shape, MA Annual Easter Conference, York University (324)
- 16-17 Howard Hoare Symposium, Birmingham University (324)
- 19-22 BAMC, East Anglia University (320)
- 20-22 Postgraduate Combinatorial Conference, Queen Mary, University of London (323)

MAY 2004

- 6 LMS Popular Lectures, Manchester University (325)
- 12 LMS Midlands Regional Meeting, Nottingham University (325)
- 12 Reading One-Day Combinatorics Colloquium, Reading University (325)
- 13-15 Quadratic Forms, Algebras with Involution and Algebraic K-Theory Workshop, Nottingham University (325)
- 14 PANDA Meeting, Leeds University (325)
- 14-15 Groups in Galway Conference, National University of Ireland, Galway (325)
- 19 Widening Participation in MSOR Workshop, Aston University (325)
- 21-23 Conference on the Life and Work of Henri Poincaré, Open University (325)
- 24-26 University of Wales Mathematics Colloquium, Gregynog (325)
- 28-31 Meeting in Honour of Professor Wong, City University, Hong Kong (319)

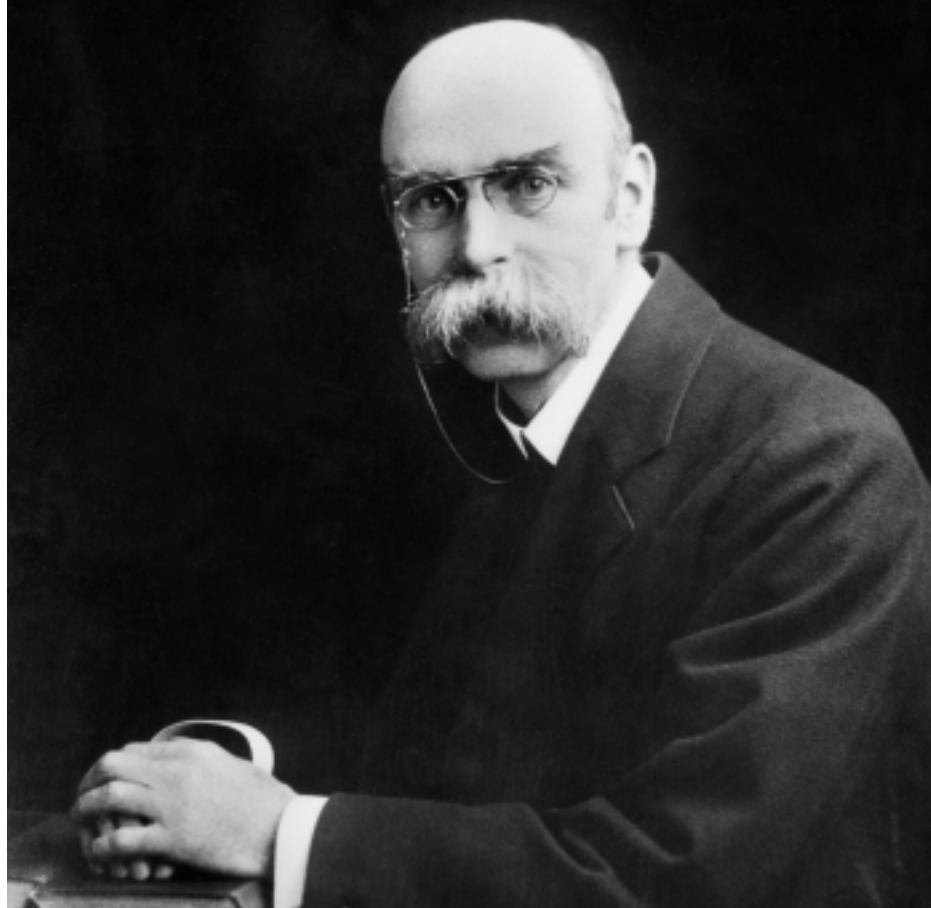
JUNE 2004

- 5 Alan Mathison Turing 2004 Meeting, Manchester University (324)
- 10-17 Representation Theory and Complex Analysis CIME Summer Course, Venice, Italy (324)
- 11 LMS Popular Lectures, London (325)
- 16-18 Croatian Congress of Mathematics, Split University, Croatia (321)
- 18 Hardy Lecture, LMS Meeting, London
- 19-24 Symmetries and Integrability of Difference Equations EURESCO Conference, Helsinki, Finland (323)
- 21-25 Mathematics for Industry European Conference, Eindhoven, The Netherlands (321)
- 21-29 Nonlinear & Optimal Control Theory CIME Summer Course, Cosenza, Italy (324)
- 21-2 Jul SMS-NATO Advanced Summer Institute Summer School on Morse Theoretic Methods in Non-linear Analysis and Symplectic Topology, Montréal Université, Canada (322)
- 27-2 Jul Fourth European Congress of Mathematics, Stockholm, Sweden (315)
- 28-30 Analysing Conflict and its Resolution, IMA Conference, Oxford (319)
- 28-2 Jul Random Matrix Theory and Arithmetic Aspects of Quantum Chaos Conference, INI, Cambridge (323)
- 29-1 Jul Geometric Group Theory Workshop, Newcastle University (325)
- 30-2 Jul Mathematical Knowledge Conference, Cambridge (323)

JULY 2004

- 2 LMS Northern Regional Meeting, Newcastle University (325)
- 4-11 ICME10, Copenhagen, Denmark (308)
- 4-14 Moonshine Conjectures and Vertex Algebras Workshop, Edinburgh (324)
- 5-9 Geometry and Topology of Coxeter Groups, M.W. Davis, LMS Invited Lectures, Southampton University (324)
- 10-14 Mathematical Modelling and Applications International Conference, City University, London (321)

AUGUSTUS EDWARD HOUGH LOVE
DE MORGAN MEDALLIST
1926



Professor Love received the De Morgan Medal on 11 November 1926. Love is remembered for his two major works: *Some Problems of Geodynamics* (1911) and *A Treatise on the Mathematical Theory of Elasticity* (first published in two volumes in 1892 and 1893; second edition, largely re-written, 1906; third edition

1920). The first is a research essay consisting almost entirely of original work; the other was for many years the standard mathematical work on elasticity. A fundamental contribution was his discovery of what became known as 'Love waves'. This is one of the major researches exposed in the 1911 book.