

THE LONDON MATHEMATICAL SOCIETY



NEWSLETTER

No. 336 April 2005

Forthcoming Society Meetings

2005

Wednesday 18 May
Birmingham
Midlands Regional
Meeting
R. Oliver
W.T. Gowers
S. Smith
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Friday 10 June
Oxford
I. Singer

Friday 17 June
London
R. Penrose
R. Jozsa
(Naylor Lecture)

Friday 8 July
York
Northern Regional
Meeting
O. Horodecki
C. Bennett

Monday 5 September
Bristol
South West & South
Wales Regional
Meeting

Friday 18 November
London
Annual General
Meeting

ANNUAL ELECTIONS TO LMS COUNCIL

The normal way in which nominations to Council are now made is via the Nominating Committee, but there is still provision for any member of the Society to make nominations directly. Anyone who wishes to propose someone for a position as an Officer of the Society or as a member of Council is invited to inform E.G. Rees, who is currently chairing the Nominating Committee (E.Rees@ed.ac.uk), or one of the other members of the Committee (R.A. Bailey, K.A. Brown, H.G. Dales, C.A. Hobbs, D. Rand, S.E Rees, D.M. Sloan) by 13 May 2005.

Any direct nominations should be sent to the Executive Secretary (cooper@lms.ac.uk) to arrive before noon on 1 September 2005. Such nominations must bear the signatures of the Nominator and three Seconders and of the Nominee.

RUSSIAN ARCHIVE

Plans are underway to create an electronic version of the archive of three Russian translations journals that are a part of the Society's current publishing pro-

gramme. Unfortunately, we do not have a complete set of copies available for the programme and we are seeking any spare copies of *Sbornik: Mathematics*, *Izvestiya: Mathematical Surveys* that we might use. If you have any old copies that you are willing to donate to the Society, please contact me in the first instance, giving the volume and issue numbers of the available copies.

Susan Hezlet
LMS Publisher
hezlet@lms.ac.uk

SOCIETY GIVES EVIDENCE AT SELECT COMMITTEE

Professor Amanda Chetwynd, Vice-President of the London Mathematical Society, gave evidence to the Science and Technology Committee Inquiry into Strategic Science Provision in English Universities at the House of Commons on Wednesday 2 March.

The inquiry follows several recent high-profile closures of university chemistry, physics, mathematics and engineering departments, and is assessing the following points:

- The impact of HEFCE's research funding formulae,

- as applied to Research Assessment Exercise ratings, on the financial viability of university science departments;
- the desirability of increasing the concentration of research in a small number of university departments, and the consequences of such a trend;
 - the implications for university science teaching of changes in the weightings given to science subjects in the teaching funding formula;
 - the optimal balance between teaching and research provision in universities, giving particular consideration to the desirability and financial viability of teaching-only science departments;
 - the importance of maintaining a regional capacity in university science teaching and research; and
 - the extent to which the Government should intervene to ensure continuing provision of subjects of strategic national or regional importance; and the mechanisms it should use for this purpose.

Professor Chetwynd gave evidence on departmental closures (such as the closure of the mathematics department at Hull) the

importance of mathematics degrees and careers to the economy across all sectors of employment, the effects of research and teaching funding and assessment mechanisms, the problem of supply and demand in higher education, and the role of the Government in addressing these issues.

This follows the Society's written submission to the Select Committee, warning that the creation of academic mathematical 'wastelands' by inappropriate government funding will critically weaken the UK's position in the sciences, engineering and business. The Society has warned that the way that funding and research councils determine funding is eroding the national provision of mathematics, through closure or merger of departments. This is creating regions with a lack of academic mathematical expertise, stemming the flow of qualified people into employment sectors from science and engineering to finance and business.

The Society's written submission to the House of Commons Select Committee on Science and Technology is available at www.lms.ac.uk/policy/2005.

LMS Newsletter

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LONDON MATHEMATICAL SOCIETY

MIDLANDS REGIONAL MEETING

**Watson Building, School of Mathematics,
University of Birmingham**

Wednesday 18 May 2005

- 2.00 pm** Arrival, poster display
- 2.20 pm** LMS business meeting
- 2.30 pm** Fröhlich Lecture
Bob Oliver (Paris 13)
p-local structure of finite groups and of their classifying spaces
- 3.40 pm** Timothy Gowers (Cambridge)
Is there another way to explain mathematics?
- 4.40 pm** Tea and coffee break, poster display
- 5.15 pm** Stephen Smith (Chicago)
Homology decompositions from subgroup complexes of finite groups
- 7.00 pm** Dinner

Included within the meeting there will be a poster session for postgraduate students with a prize of £100 worth of books donated by Springer Verlag. There will be book displays by the LMS and by Springer.

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 Wednesday 18 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).

For further details and to reserve a place at the dinner, contact Chris Parker (email: c.w.parker@bham.ac.uk) at the School of Mathematics, University of Birmingham. See also the link from the School's website: www.mat.bham.ac.uk.

As usual a smaller, more focused, mathematical meeting will follow the general meeting. This year this will be on *Fusion Systems, Representation Theory and Groups* and will take place from 19 – 21 May. There will be about ten one-hour invited talks.

TOMLINSON INQUIRY

The Department for Education and Skills published its *14-19 Education and Skills White Paper** on 23 February in response to the report of the *Working Group on 14-19 Reform*, chaired by Sir Mike Tomlinson. The White Paper responds to the challenge of how to fulfil the educational needs of young people of all abilities, issued by the report last October.

The White Paper sets out proposals building on the existing education system, designed to:

- Ensure that every young person masters functional English and Mathematics before they leave education.
- Improve vocational education by introducing new Diplomas.
- Stretch all young people and help universities to differentiate between the best candidates by introducing more demanding questions at A level and making available HE modules.
- Re-motivate disengaged learners by providing a new programme for 14-16 year olds, based on entry to employment.

The response rejects the whole-scale revision of qualifications proposed by Mike Tomlinson, which would have replaced GCSE and A-Level qualifications with a four-tier diploma. In its response to the White Paper, the Society has welcomed the recognition of the fundamental importance of all young people acquiring good basic skills in English and Mathematics. It is pleased that mathematics is set to enjoy a privileged position in the school curriculum throughout the 14-19 age range and be incorporated as compulsory elements of the proposed Diploma at all levels. It also welcomes the White Paper's emphasis on all young people achieving their potential.

The Society continues to support the recommendations of Professor Adrian Smith on how this can best be done in Mathematics, and is heartened by the Government's stated commitment to implement them. Particularly welcome is the Government's confirmation of support for

a National Centre for Excellence in Mathematics Teaching to address the training needs of teachers. The Society also welcomes the proposed review of the mathematics curriculum and its reduced fragmentation at A-level.

While pleased at the renewed commitment that subjects and careers should be open equally to both sexes, the Society notes that although girls do well at GCSE mathematics, comparatively few of them go on and aspire to careers in mathematics. It urges that (as in the case of physics) this be investigated and action taken to correct the imbalance.

However, the Society is concerned at some weaknesses in the Government's proposals. In particular, there is a need to develop a pathway which will provide a worthwhile education and qualification in mathematics for the 30% who currently do not achieve one. The proposals for 'functional mathematics' are too weak to do this, and it urges that what is appropriate be carefully explored by a wider constituency than current end-users.

There is also a need to strengthen the main A-level mathematics syllabus, so that students can develop fluency and understanding across the whole subject. Neither allowing a small minority to study HE modules nor providing some extra hard questions in examinations addresses the needs of a substantial fraction of the cohort.

The need to re-engage existing students with their studies deserves greater attention; in particular, students need to understand the relevance and importance of mathematics in all areas of employment.

The problem of over-reliance on external assessment ought to be tackled more radically, and in the context of the great majority of the cohort remaining in education until age 19.

The Society looks forward to working alongside others in the mathematics community, through ACME, with Government and its agencies, in refining, developing and implementing these proposals.

*www.dfes.gov.uk/publications/14-19educationandskills/


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L. Hörmander

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Differential Operators with Constant Coefficients

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Hörmander looks at operators with constant coefficients. An analysis of the existence and regularity of (fundamental) solutions in the first two chapters is followed by a thorough study of the Cauchy problem.

Reprint of the 1st ed. Berlin Heidelberg New York 1983 2005, XII, 383 p. Softcover
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K. Kodaira

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From the reviews: "...Most of all it is a piece of work which shows mathematics as living

nowhere between discovery and invention, a fact which all mathematicians know, but most inexplicably conceal in their work." N.J. Wildbur in the *Bulletin of the London Mathematical Society*, 1987

Reprint of the 1st ed. Berlin Heidelberg New York 1986 2005, XIX, 483 p. Softcover
ISBN 3-540-22604-1 ► € 28,95; £ 30,58



T. R. Liggett

Interacting Particle Systems

From the reviews: "...[The high quality of this work, on a technically difficult subject, makes

a fascinating subject and its open problem as accessible as possible. [...] E.E. Spitzer in *Mathematical Reviews*, 1986

Reprint of the 1st ed. Berlin Heidelberg New York 1985 2005, XIX, 488 p. Softcover
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I. I. Gihman, A. V. Skorokhod

The Theory of Stochastic Processes I

From the reviews: "Gihman and Skorokhod have done an excellent job of presenting the

theory in its present state of rich imperfection." D. W. Stroock in *Bulletin of the American Mathematical Society*, 1980

Reprint of the 1st ed. Berlin Heidelberg New York 1974 2004, VIII, 574 p. Softcover
ISBN 3-540-26288-6 ► € 24,95; £ 27,08



The Theory of Stochastic Processes II

Reprint of the 1st ed. Berlin Heidelberg New York 1975 2004, VIII, 491 p. Softcover
ISBN 3-540-26285-4 ► € 24,95; £ 27,08

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TOM WILLMORE

Professor Tom Willmore, who was elected a member of the LMS 65 years ago, died on 20 February 2005. Born in Kent on 16 April 1919, he took his first degree at Kings College London and began to lecture there until war intervened. From 1939 to 1946 he worked for the Air Ministry but, studying on his own and corresponding with A.G. Walker, he also gained a PhD in 1943 in General Relativity. He was a Lecturer in Durham from 1946-1954, then went to Liverpool but returned to Durham as Professor in 1965.

For many years Durham was the UK's centre in differential geometry. Willmore wrote an influential book on the subject and also introduced in the early 60s the celebrated Willmore problem which remains unresolved to this day. It concerns which tori in Euclidean three-space minimize the integral of the square of the mean curvature: a simply stated question, analogous to the isoperimetric problem, which has had many ramifications in the theory of harmonic maps and integrable systems.

Professor Willmore was a member of Council and a Vice-President of the LMS from 1977 to 1979. He was a frequent visitor to Germany and a great admirer of Oberwolfach. In an attempt to produce a British version he persuaded the LMS in 1972 to host its Research Symposia in Durham. He was always an enthusiastic presence there and expressed an interest in all the activities well into his retirement. Generations of mathematicians from the UK and beyond got to know him this way and appreciate his humour and engaging personality.

ANDREW CHARLES KING

Professor Andrew Charles King, who was elected a member of the London Mathematical Society on 1 November 1999, died on 13 January 2005. Born in Royston,

Hertfordshire in 1957, he had a peripatetic childhood, taking in Cyprus, Hong Kong and Germany, before his family finally moved back to England when he was a teenager.

He began his degree in Mathematical Sciences at the University of Leeds in 1975, later starting work on a PhD with Malcolm Bloor. Unfortunately the project didn't work out, and he took a job at an engineering company. However, mathematics was always his first love, and after a brief spell at Bolton Institute of Higher Education he took up a lectureship at the City of Birmingham Polytechnic (now the University of Central England) in 1983. Soon realizing the need for a PhD in order to pursue his academic ambitions, he started a new project with Malcolm Bloor, while moving to the University of Nottingham as a temporary lecturer. He rapidly produced a thesis on the use of the Schwarz-Christoffel transformation to solve for free surface flow over submerged objects, and moved to the University of Keele as lecturer in 1989. In 1994 he moved back to the University of Nottingham as Reader, and almost immediately afterwards became Professor of Applied Mathematics at the University of Birmingham, where he remained for the rest of his career. At Birmingham, he built up the Department of Applied Mathematics and attracted considerable industrial funding. His work on industrial problems encompassed performance modelling of solid oxide fuel cells, the manufacture of fertiliser pellets, cement hydration and waves in liquid/liquid separators. Illness forced him to take early retirement in 2002.

Andy King will be particularly remembered for two well-received textbooks *Wave Motion* and *Differential Equations* that he wrote with John Billingham for CUP while at Birmingham, for his contributions to the theory of free surface flows, and for his many papers, usually involving an elegant combination of asymptotic and numerical methods. He was known for his considerable teaching skills, including the ability to produce well-written lecture

notes off the top of his head, and to be able to find an explicit formula to map almost anything to anything else in the complex plane.

A generous man, Andy helped many people at crucial stages in their careers. He was an original, and one of the real characters of British applied mathematics.

ICMS CALL FOR PROPOSALS

Proposals are invited for workshops to be held at the International Centre for Mathematical Sciences (ICMS) in Edinburgh in 2006. The ICMS is based in central Edinburgh, in the birthplace of James Clerk Maxwell. Following new funding arrangements with EPSRC for the period 2005 to 2008 ICMS is able to offer support to run workshops and symposia on all aspects of the mathematical sciences in new or traditional subjects and interdisciplinary areas with significant mathematical content.

The core of ICMS activity will be the rapid-reaction research workshop programme (R3WP). ICMS therefore particularly welcomes proposals for workshops in rapidly-developing and newly-emerging areas where there is a need to evaluate new developments quickly. ICMS will respond quickly to such proposals. Organisers can expect preliminary comments from reviewers in 8 weeks. Decisions will be made by the Programme Committee four times a year (December, March, May and September). Small meetings can be organised in 6-8 months from acceptance.

Potential organisers should contact ICMS as early as possible to discuss ideas before submitting a firm proposal. The proposal document should not normally exceed five pages and should be submitted electronically (PDF, PS, Word or DVI). Proposals may be submitted at any time. Full instructions on how to submit a proposal, together with details of the refereeing process and criteria for selec-

tion, can be found on the web pages: www.icms.org.uk/call/index.html.

Anyone unable to read these pages or download documents can order print versions from ICMS. Successful applicants will be offered a funding package to contribute to the travel and subsistence of a proportion of the participants. ICMS staff will undertake all non-scientific administration connected with the workshop (such as issuing invitations, processing registrations, organising accommodation, preparing material, financial administration). One of the Scientific Organisers (often an author of the initial proposal) will be appointed Principal Organiser and be the main point of contact.

For all enquiries about ICMS or the procedures for submitting a proposal, please contact Tracey Dart, Executive Secretary, ICMS, email Tracey.Dart@icms.org.uk (14 India Street, Edinburgh EH3 6EZ, Tel +44 (0)131 220 1777; Fax +44 (0)131 220 1053).

PURE MODEL THEORY WORKSHOP

A satellite meeting of the Isaac Newton Institute Programme *Model theory and applications* to algebra and analysis will be held at the University of East Anglia, Norwich, from 4-8 July. The workshop will focus on recent developments at the 'purer' end of model theory, without, of course, ignoring connections with other branches of mathematics. The themes of the workshop will include: forking and simple theories; Hrushovski constructions; non-elementary classes; topological methods in model theory; independence in unstable structures. Full details about the workshop and how to register can be found on the webpage www.mth.uea.ac.uk/~h120/PureMod.html. Further information can be obtained by contacting the local organiser David Evans (d.evans@uea.ac.uk). The workshop is supported by the Isaac Newton Institute, Cambridge, and the EPSRC.

BURNSIDE LECTURE THEATRE

The School of Computing and Mathematical Sciences, University of Greenwich, in association with the Greenwich Foundation for the Old Royal Naval College, is holding an event to mark the naming of the Burnside Lecture Theatre. William Burnside (1852-1927), the pioneer of group theory, was from 1885 to 1919 Professor of Mathematics at the Royal Naval College, Greenwich, where he was a popular and respected teacher to generations of seamen and naval architects.

The naming ceremony will take place on Wednesday 13 April at 7 pm in King William Court, Old Royal Naval College, Park Row, London SE10 9LS, when Peter M. Neumann will give a talk about Burnside's life and work. Coffee will be available beforehand and there will be a reception afterwards. A map and travel directions to the Maritime Greenwich Campus can be found at www.cms.gre.ac.uk/web/contact.asp. All are welcome: if you intend to come it would be helpful for catering purposes if you could inform Tony Mann in advance by email (A.Mann@gre.ac.uk) or by phone on 020 8331 8709.

VISIT OF PROFESSOR D. KAZHDAN

Professor David Kazhdan (Harvard University/Hebrew University) will visit the University of Nottingham in May, supported by the EPSRC grant on Zeta functions. On 11-12 May he will deliver a course of six one-hour lectures on *Representations of two dimensional groups* which will include his and D. Gaitsgory's recent approach to the representation theory of algebraic groups over two dimensional local fields, which uses the pro- and ind- categories language. For schedule of talks and additional information contact I. Fesenko (ibf@maths.nott.ac.uk).

VISIT OF PROFESSOR B. SIMON

Professor Barry Simon (California Institute of Technology) will visit King's College London between 10 May and the end of July, partly supported by an LMS Scheme 2 grant. He will give lectures at King's College London on 19 May (contact E.B. Davies), in Cambridge on 25 May (contact Y.M. Suhov) and in Swansea on 19 or 20 July (contact A. Truman). For further details contact E.B. Davies (E.Brian.Davies@kcl.ac.uk).

VISIT OF PROFESSOR M. BEN-ARTZI

Professor Matania Ben-Artzi (Hebrew University of Jerusalem) will be visiting the UK from 17 April till 3 May, supported by an LMS Scheme 2 grant. Professor Ben-Artzi is one of the leading experts in partial differential equations both in pure and applied aspects. His fields of interest include Schrödinger and Maxwell equations, non-linear parabolic equations, Navier-Stokes systems, theoretical and computational aspects of fluid dynamics. Professor Ben-Artzi will give talks at Bristol on 19 April, at Cardiff on 22 April, at Imperial College London on 26 April, at Cambridge on 28 April and at Oxford at 2 May. For further information contact Professor Vitali Liskevich (email: V.Liskevich@bristol.ac.uk).

VISIT OF PROFESSOR A.G. RAMM

Professor Alexander Ramm (Kansas State University) will be visiting the UK from 24 May to 10 June, supported by an LMS Scheme 2 grant. He will visit Queen's University Belfast (24 May – 2 June), the University of Bath (3-4 June), the University of Edinburgh (6-7 June), and King's College London (9 June). During his visit he will give talks on:

- *Dynamical systems method for solving operator equations* (Queen's University Belfast, Edinburgh, King's College London)

- *Wave scattering by small bodies of arbitrary shapes* (Bath, Edinburgh)
 - *Local tomography and pseudo-differential operators* (Queen's University Belfast)
- For more information contact D.H. Armitage (d.armitage@qub.ac.uk).

WANT TO LEARN HOW THE MEDIA WORKS?

The BA Media Fellowship Scheme offers professional scientists and engineers the opportunity to experience first hand how the media works. You will spend three to eight weeks on a summer placement with a media organisation learning how science is reported in the media. Previous host organisations have included *The Guardian*, BBC Radio, *Nature Online* and *Countryfile*. You are eligible to apply for the scheme if you:

- Are a scientist, social scientist or engineer;
- have a minimum of two years postgraduate experience in your field;

- are a UK citizen;
 - work at any level in an academic or research institution, industry, civil service or any other similar organisation.
- For further information and online application visit www.the-ba.net/mediafellows.

ARTIN

An *Algebra and Representation Theory in the North* (ARTIN) meeting will be held at the University of York on Friday 13 – Saturday 14 May. The speakers will be:

- Oleg Chalykh (Leeds)
- Kyu-Hwan Lee (Toronto)
- Andrey Mudrov (York)
- Ivan Cherednik (Chapel Hill)

ARTIN is funded by an LMS Scheme 3 grant. For more information, including details of the programme and venue for the meeting, see www.maths.gla.ac.uk/~ig/ARTIN5.html or contact Iain Gordon (ig@maths.gla.ac.uk).

University of Durham

Department of Mathematical Sciences

Lectureships in Pure Mathematics

The University is seeking to appoint two Lecturers in Pure Mathematics. The successful candidates will have an excellent research record in Pure Mathematics, in particular Topology, Number Theory or Arithmetic Geometry. They will be expected to make a substantial commitment to the research activities of the Pure Mathematics Group, and to undertake appropriate teaching and administrative duties.

Closing date: 15 April 2005 **Vacancy Reference:** 0671

Scale €23,643–35,883 per annum (Lecturer A/B)

Further details of the post may be found at www.maths.dur.ac.uk/pure/purelect.html

Application can be made on the Durham University jobs website (<https://jobs.dur.ac.uk>); or telephone 0191 334 6499, fax 0191 334 6504

NGMA

The second meeting of NGMA (Network for Geometry, Mechanics and Applications), which is a sub-network of PANDA (Patterns, Nonlinear Dynamics and Applications), will take place at Southampton on 11 May on the theme of *Geometric Approaches to Fluids and Liquid Crystals*. Speakers include:

- C. Cotter (Imperial)
- D. Holm (LANL and Imperial)
- M. Kleman (Paris)
- E. Mansfield (Kent)
- M. Zyskin (Bristol)

PANDA and hence NGMA are supported by the LMS under Scheme 3. For further details contact David Chillingworth (drjc@maths.soton.ac.uk) or Mark Roberts (M.Roberts@surrey.ac.uk).

GROUPS IN GALWAY

The annual Groups in Galway conference will be held at the National University of Ireland, Galway, on 12–14 May. The current conference is in honour of Professor Martin Newell. The scope of the conference covers all areas of group theory, applications, and related fields. The following is a provisional list of speakers:

- Rex Dark (NUI, Galway)
- Warwick de Launey (Center for Communications Research, USA)
- Colin Campbell (St Andrews)
- Alla Detinko (NUI, Galway/Belarus)
- Francisco de Giovanni (Università di Napoli)
- Hermann Heineken (Universität Würzburg)
- Luise-Charlotte Kappe (SUNY)
- Tom Laffey (UC Dublin)
- John McDermott (NUI, Galway)
- Des MacHale (UC Cork)
- Mike Newman (ANU, Canberra)
- Rachel Quinlan (UC Dublin/Galway)
- Stewart Stonehewer (Warwick)

All who are interested are invited to attend. There is no formal registration (and in particular no registration fee), although it would be appreciated if intending attendees send an email to

one of the organizers (addresses below).

Details of the talks and their scheduling will be posted at www.maths.nuigalway.ie/gig05.html closer to the event. For further information, contact one of the conference organizers, Jim Cruickshank (james.cruickshank@nuigalway.ie) or Dane Flannery (dane.flannery@nuigalway.ie).

NATIONAL E-SCIENCE CENTRE

1st International Digital Curation Conference

The UK Digital Curation Centre (DCC) is pleased to announce the dates of the first International Digital Curation Conference which will be held at the Hilton Bath City from 29–30 September. The Digital Curation Centre (DCC) is jointly funded by the JISC (Joint Information Systems Committee) and the EPSRC (Engineering & Physical Sciences Research Council) on behalf of the UK Research Councils. The DCC provides a focus on research into digital curation expertise and best practice for the storage, management and preservation of digital information to enable its use and reuse over time. For further information regarding the conference contact events@ukoln.ac.uk.

4th UK e-Science Programme All Hands Meeting – Call for Abstracts

The fourth UK e-Science Programme, All Hands Meeting (AHM 2005), will be held at the East Midlands Conference Centre, Nottingham, from 19–22 September. The theme of this year's meeting is 'Innovating through e-Science' reflecting how the UK e-science programme has generated innovative solutions in both computing and application science. The goal of the meeting is to provide a forum in which information on e-Science projects from all disciplines can be communicated and where the capabilities being developed within projects can be demonstrated. For further details visit: www.allhands.org.uk.

MAFELAP 2006

The next conference on the Mathematics of Finite Elements and Applications (MAFELAP) will take place from 13–16 June 2006 at Brunel University. In view of his immense contributions to finite elements, his contributions to the MAFELAP conferences, and on account of his association with Brunel University, MAFELAP 2006 will honour Professor Ivo Babuska, who will attain the age of 80 in 2006.

The organisers are now at the stage when they are encouraging colleagues to propose mini-symposia which they would like to organise at MAFELAP. Briefly, the parameters for a mini-symposium are that a time-slot will be allocated to the organisers, during which they can have four speakers, each giving a presentation (probably 30 minutes, 25 minutes talk plus 5 minutes for questions). If organisers want more than four talks, then two two-hour slots could be given. If you are interested in running a mini-symposium, please submit a title to Carolyn Sellers, MAFELAP Secretary, Brunel University (mafelap2006@brunel.ac.uk) as soon as possible, with a tentative list of speakers. For further information visit www.brunel.ac.uk/bicom/mafelap2006 at which more details will be added as time progresses.

ACCMCC

The 30th Australasian Conference in Combinatorial Mathematics and Combinatorial Computing (ACCMCC) will be held at the University of Queensland from 5–9 December 2005. Invited speakers are:

- Simon Blackburn (Royal Holloway, University of London, UK)
- Matthew Brown (University of Adelaide, Australia)
- Mike Grannell (Open University, UK)
- Lily Khadjavi (Loyola Marymount University, USA)
- Curt Lindner (Auburn University, USA)

- Brendan McKay (ANU, Australia)
- Wal Wallis (Southern University at Carbondale, USA)

(and more to be finalised). The conference will consist of a number of invited talks as well as shorter contributed talks in parallel sessions. For further information contact the Director, Elizabeth Billington (ejb@maths.uq.edu.au) or visit the website (www.maths.uq.edu.au/cdmcc/30accmcc.html).

YORKSHIRE DURHAM GEOMETRY DAY

The Yorkshire Durham Geometry Day will be held at the University of York on Friday 15 April. The speakers are:

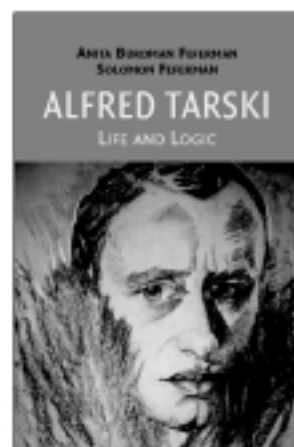
- Mike Field (Houston)
- Udo Hertrich-Jeromin (Bath)
- John Rawnsley (Warwick)

For further details visit www-users.york.ac.uk/~cmw4/ydgd7.html or contact Chris Wood (cmw4@york.ac.uk).



CAMBRIDGE

For the Books that Count



Alfred Tarski Life and Logic

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This first full length biography places Tarski in the social, intellectual and historical context of his times and presents a frank, vivid picture of a personally and professionally passionate man, interlaced with an account of his major scientific achievements.

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EMS-SCM JOINT MATHEMATICAL WEEKEND

A Joint Mathematical Weekend Meeting organised by the Catalan Mathematical Society, under the auspices of the European Mathematical Society, will be held at the University of Barcelona from 16–18 September. The topics and plenary speakers are:

- *Combinatorics and graph theory*
Béla Bollobás (Trinity College, Cambridge and University of Memphis)
- *Dynamical systems*
Jean-Christophe Yoccoz (Collège de France)
- *Evolution PDEs and calculus of variations*
Henri Berestycki (Ecole des Hautes Etudes en Sciences Sociales, France)
- *Module theory and representations of algebras*
Henning Krause (Universität Paderborn)
- *Non-commutative geometry*
Alexey I. Bondal (Steklov Mathematical Institute, Moscow)

Visit the website www.iecat.net/scm/emsweekend for further information and to register on-line.

ALGEBRAS AND REPRESENTATION THEORY

The International Asia-Link conference on Algebras and Representation Theory will be held at Beijing Normal University (Beijing, China), 23–28 May. The main speakers are: Jon Carlson, Joseph Chuang, Bill Crawley-Boevey, Dieter Happel, Soek-Jin Kang, Nick Kuhn, Gus Lehrer, Fang Li, Volodymyr Mazorchuk, Dan Nakano, Amnon Neeman, Idun Reiten, Claus Michael Ringel, Hebing Rui, Jan Schroerer, Jie Xiao. Registration is now open. For more information see the website <http://math.bnu.edu.cn/math/Asia-Link-conf/conf.html> or contact the local organizers: algebra@bnu.edu.cn.

The conference will be followed by a workshop on Homology, Geometry and Combinatorics of Representations at the Sino-

German Science Center in Beijing, 29–30 May. There will be about 10 invited talks by distinguished experts in representation theory of finite dimensional algebras. The organizers are Bangming Deng (BNU) and Henning Krause (Paderborn University). For further information email hkrause@math.uni-paderborn.de.

KINGFISHER DELTA'05

The Fifth Southern Hemisphere Symposium on Undergraduate Mathematics and Statistics Teaching and Learning will be held at the World Heritage Fraser Island, Queensland, Australia, from 22–26 November. This conference is the fifth in a growing series of international conferences that cover all aspects of teaching mathematics and statistics at the undergraduate level. This follows previous successful DELTA conferences, including Remarkable Delta'03 in Queenstown, New Zealand, and Warthog Delta'01 in the Kruger Park, South Africa. Guest speakers include:

- Peter Galbraith (University of Queensland, Australia)
- Eric Sovey (University of New South Wales, Australia)
- Gilbert Strang (MIT, USA)
- David Tall (University of Warwick, UK)

The organisers are interested in hearing any of a wide range of topics on the teaching of mathematics and statistics at university level. Full papers accepted by the reviewers will appear in the Conference Proceedings, which will be published as a special double issue of the *International Journal of Mathematical Education in Science and Technology*. Short non-refereed papers will be published in the Conference Communications. All abstracts will appear in the Conference Handbook. Registration is now open. Standard registration before 31 August is A\$520. Discounts are available to students and members of the Australian Mathematical Society. For further information visit the conference website (www.maths.uq.edu.au/delta05/index.php).

WOMEN IN MATHEMATICS DAY 2005

The next Women in Mathematics Day will be held on 25 May at De Morgan House. Talks will begin at 11 am, after half an hour for coffee, and the day will end at 4.30 pm, followed by an early supper at a nearby restaurant. While this is an occasion particularly for women active in mathematics to get together, men are certainly not excluded. Sessions will include talks by practising women mathematicians in a variety of appointments and at different career stages.

One aim of the day is to encourage women approaching the various interfaces – undergraduate/postgraduate, PhD/postdoc and so on – to stay in mathematics; we hope that an opportunity to see women who are active and successful in mathematics, and to meet with them informally over lunch, tea etc will have a positive effect on this problem. Feedback from previous meetings has shown that this is one of the aspects of the Women in Mathematics Days that participants say has made a difference to them.

Programme

- 10.30 – 11.00 Registration and coffee**
11.00 – 12.45 Morning Session
 11.00 Dr Nina Snaith (Bristol)
title TBA
 11.40 Professor Marian Scott (Glasgow)
title TBA
 12.20 Dr Helen Joyce (Science Communicator)
title TBA
12.45 – 13.45 Lunch
13.45 – 15.45 Afternoon Session
 Postgraduate speakers – TBA
15.45 – 16.00 Tea
16.00 – 16.30 Mentoring (Professor Ursula Martin, Dr Cathy Hobbs)

Followed by an early supper for those able to stay.

The organisers would be very grateful if all members could encourage women mathematicians, particularly students (including final year undergraduates) and those at an early stage in their career, to attend this meeting. Anyone interested in giving a postgraduate talk should contact Cathy Hobbs (cahobbs@brookes.ac.uk).

To register please contact Isabelle Robinson, Administrative Officer (tel: 020 7291 9979, fax: 020 7291 9978, email: robinson@lms.ac.uk). The day is free for postgraduate students and £5 for all others – payable on the day. There are limited funds available to help with travel costs.

RECORDS OF PROCEEDINGS AT MEETINGS

ORDINARY MEETING

held on *Friday 25 February 2005* at University College London. About 90 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. Fifteen people were elected to Ordinary Membership: J. Chuang, S.J. Cox, J. Gibbons, S.R.L. Guenneau, E.O. Harriss, N. Heuer, I.A. Korchagina, V. Mazya, A. Öberg, P.M. Sutcliffe, F. Tari, J.-L. Wu, D.D. Zakharov, T. Zhang, H. Zheng; ten people were elected to Associate Membership: M. Caruana, G. Copitsas, J.P. Elmer, P.S. Iley, K. Kalsi, E.H. Kimber, G.J. Murphy, E.J. Pickett, R.S.J. Savani, M.L. Tham; and four people were elected to Reciprocity Membership: R.A. Hammaker, H. Lin, L.B. Pierce (all of the American Mathematical Society), M. Salles (Société Mathématique de France).

The Records of the Proceedings of the Society Meetings held on 2 July, 17 September and 19 November 2004 were signed as a correct record.

Dr F.A. ROGERS introduced a lecture given by Professor Steffen Lauritzen on *A pedigree perspective of local computation*.

After tea, Professor C.M. GOLDIE introduced the Mary Cartwright Lecture, given by Professor Elizabeth Thompson on *Relatedness, genome sharing, and the detection of genes*.

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

MARY CARTWRIGHT LECTURE

The Society's Mary Cartwright Lecture, held in London on 25 February, turned for the first time to statistics for its topic. More specifically, the field was statistical

genetics, and given the discipline-hopping nature of the occasion the attendance of 89 was impressively high. Members of the audience came from Oxford in considerable numbers, and from points further north such as Sheffield. However, most impressive was that one participant, Alia

Sarhan, came from Helsinki especially for this occasion – and luckily got the opportunity to ask a question.

The Mary Cartwright meeting is always organised as a double bill, and the first talk of the two was by Steffen Lauritzen of Oxford's Statistics Department. Anyone who was not aware of Steffen's translation last year from Aalborg to Oxford has no excuse not to know of it now. In a setting of very great generality he introduced us to the multi-level scales of computation inherent in modern pedigree analysis. The abstract general setting was made intelligible by a wealth of specific examples, culminating in pedigrees large and small.

After the tea interval Elizabeth Thompson of the University of Washington, who had come from Seattle for the purpose, gave the Mary Cartwright Lecture 2005. With the probabilistic and computational structure of pedigrees laid bare in the first lecture, the stage was set for Elizabeth to make inferences about genetic linkages from the data, that is, to do statistics. The objective is to find locations in the genome where DNA variation affects a trait. Given that a collection of individuals are similar in respect of an observed trait, the probability of identity by descent of the individuals' DNA at those locations is increased. How can one infer identity by descent from the available data at marker loci? For a small pedigree the probabilities can be calculated explicitly, while for the larger ones that are the real focus of interest, Monte-Carlo Markov Chain sampling can be employed. In earlier work Professor Thompson had employed certain 'pseudo p -values' to encapsulate the conclusions of the hypothesis tests, but those suffered from the defect that they were not p -values in the strict sense (of being uniformly distributed over the unit interval under the null hypothesis). The MC Lecture audience were privileged to hear

her latest thinking on this point, in which the pseudo p -values are replaced by a 'fuzzy p -value' which is indeed a p -value in the full sense and so can be interpreted without danger.

Following the tradition of the series, the meeting was followed by a reception hosted by the Society's President, Professor Frances Kirwan, at De Morgan House, and subsequently by a convivial meal in a nearby restaurant.

The Mary Cartwright Lecture commemorates the mathematician Dame Mary Lucy Cartwright, 1900–1998. Mary Cartwright not only achieved great distinction; in almost every instance she was the first woman so to do. Thus she gained the first female degree (and 'First') in mathematics from Oxford, was the first female mathematician to be elected a Fellow of the Royal Society, the first woman to be elected to its Council and to be awarded its Sylvester Medal, the first female President of the LMS, the first (and only) female winner of its premier award, the De Morgan Medal. The annual Mary Cartwright Lecture celebrates the life of this great pioneer.

The Mary Cartwright meetings began in 2000 and a listing of the speakers, topics and venues of the six occasions to date can be found on the Society's website among the Women in Mathematics Committee pages. This Committee, which organises the meetings, is the only one of its kind among the three sister Societies in the Council for the Mathematical Societies, and it therefore attempts to range widely across the mathematical sciences in topics and speakers for the meetings. In future years further eminent statisticians and computer scientists can be expected to join the pantheon of pure and applied mathematician Mary Cartwright lecturers.

C.M. Goldie
University of Sussex

EPSRC NONLINEAR WAVE PHENOMENA

LMS/EPSRC Short Course

University of Reading, 4–9 July 2005

Organiser: Dr B. Pelloni



This course will focus on analytical and physical aspects of nonlinear waves and recent related techniques. The three main lecturers are Professor Jerry Bona (University of Illinois), Professor Catherine Sulem (University of Toronto) and Professor Thanasis Fokas (University of Cambridge), in collaboration with Dr Beatrice Pelloni (University of Reading). The three lecture courses will discuss:

- (i) derivation of the most important mathematical models of nonlinear waves and their use in practical applications;
- (ii) analysis of the nonlinear Schrödinger equation, including multiple scale analysis, integrable system structure, long time asymptotics and blow-up;
- (iii) the inverse scattering transform for integrable models such as the Korteweg de Vries equation, and its extension to a transform method for boundary value problems.

The course aims to describe various different aspects of the relevant theory to an audience of advanced postgraduate students and postdoctoral researchers in applied mathematics. However, presentations will be accessible to any graduate student with a basic training in fluid dynamics and analysis.

The three series of lectures will be supplemented by tutorials and problem sessions, as well as by a number of invited research seminars in the area of nonlinear waves, presenting the work of a number of major UK researchers in this area. More information can be found at: www.maths.rdg.ac.uk/nonlinearwaves.html.

The registration fee is £100. The accommodation costs for all UK-based research students are covered by EPSRC. Participants must pay their own travel costs. EPSRC-supported students can expect that their registration fees and travel costs will be met by their departments from the EPSRC Doctoral Training Account. Postdocs and non-UK students will be required to pay their own subsistence costs.

Application forms may be obtained from Isabelle Robinson, Administrative Officer, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (email: robinson@lms.ac.uk, fax: 020 7291 9978) or from the LMS website: www.lms.ac.uk/activities/research_meet_com/short_course/25_poster.html

Numbers will be limited and those interested are advised to make an early application. The closing date for applications is **Friday 6 May 2005**. Completed forms should be returned to the Administrative Officer by email, fax or post (details above). All applicants will be contacted by the London Mathematical Society approximately one week after this deadline; we will not be able to give information about individual applications before then. Please do not send any money until we ask.

ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES

Satellite Meeting on

THEORETICAL ASPECTS OF PATTERN FORMATION

University of Surrey

19 – 23 September 2005

in association with the Newton Institute programme entitled
Pattern Formation in Large Domains (1 August – 23 December 2005)

Supported by the Newton Institute, the London Mathematical Society, EPSRC and the Institute of Advanced Studies (University of Surrey)

Organisers: Ian Melbourne (Surrey), Alastair Rucklidge (Leeds) and Bjorn Sandstede (Surrey).

Theme of conference: Pattern formation is a wide-ranging subject, encompassing areas from fluid mechanics to solid-state physics, and from chemical to biological systems. Pattern formation is also a rich source of mathematical problems, providing interesting mathematical challenges in the field of applied partial differential equations, nonlinear dynamics and bifurcation theory. The formation of patterns in small domains can be studied near onset by a bifurcation-theoretic approach, but the range of validity of the normal form equations shrinks to zero as the domain size increases. The resolution of this issue is to employ a continuum description of bifurcating patterns in unbounded domains. In one space dimension, the reduction to an amplitude equation has been put on a rigorous mathematical foundation. However, similar progress on two-dimensional pattern formation is prevented by a fundamental mathematical difficulty: the orientational degeneracy of the plane. This workshop is intended to address aspects of this problem, and will bring together leading pure and applied mathematicians and experimentalists to examine the issues common to a wide variety of pattern-forming problems when these are posed in domains that are large compared to the intrinsic characteristic length scales of the pattern.

Invited speakers: Guenter Ahlers (UC Santa Barbara), Peter Ashwin (Exeter), Dwight Barkley (Warwick), Michael Cross (Cal Tech), Nicholas Ercolani (Arizona), Bernold Fiedler (Berlin), Raymond Kapral (Toronto), Edgar Knobloch (Leeds/Berkeley), Jeroen Lamb (Imperial), Joceline Lega (Arizona), Robert MacKay* (Warwick), Alexander Mielke (Stuttgart), Alan Newell (Arizona), Hermann Riecke (Northwestern), Michael Schatz (Georgia Tech), Arnd Scheel (Minneapolis), Guido Schneider (Karlsruhe), Mary Silber (Northwestern), Hannes Uecker (Karlsruhe), Eugene Wayne (Boston), Claudia Wulff (Surrey).

*to be confirmed

IAS Seminar: There will be a special day of distinguished lectures during the workshop, on Tuesday 20th September, aimed towards describing the state of the art of the subject as well as future directions. The distinguished invited speakers will be Guenter Ahlers (UC Santa Barbara), Dwight Barkley (Warwick), Alan Newell (Arizona), Arnd Scheel (Minneapolis), Eugene Wayne (Boston). This special day is intended for a wider academic audience and will be funded by the Institute of Advanced Studies (University of Surrey).

Location and cost: The satellite workshop will take place at the University of Surrey. Costs are to be determined.

Further information and application forms are available from the web at: www.newton.cam.ac.uk/programmes/PFD/pfdw03.html.

ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES
THEORY AND APPLICATIONS OF COUPLED CELL NETWORKS

26 – 30 September 2005

in association with the Newton Institute programme entitled
Pattern Formation in Large Domains (1 August – 23 December 2005)

Organisers: Peter Ashwin (Exeter), Stephen Coombes (Nottingham), Jonathan Dawes (Cambridge), Martin Golubitsky (Houston).

Theme of conference: A coupled cell system is a dynamical system distributed over the nodes of a network: to each node (or 'cell') we attach a phase space and evolution equations that describe the local dynamics. Such a partitioning leads to the notions of symmetry and synchrony. Examples of coupled cell systems include central pattern generators, genetic regulatory networks, neural circuits and social networks. In many cases recent work has provided detailed information showing that the network structure is highly complicated. The challenge now is to complement new physical and biological understanding of network structures with a mathematical understanding of their dynamics.

The conference will focus on:

- Dynamics (synchronisation, pattern formation, chaotic behaviour, heteroclinic dynamics)
- The influence of network architecture and topology (symmetry groups and groupoids, motifs)
- Application to and inspiration from physics and biology (cell cycle control, neural dynamics, travelling waves).

Invited speakers: Uri Alon (Weizmann Institute), Mike Cross (Caltech), Bard Ermentrout (Pittsburgh), Paul Glendinning (Manchester), Kresimir Josic* (Houston), Kunihiko Kaneko (Tokyo), Yoshiki Kuramoto* (Hokkaido), Andre Longtin (Ottawa), Gabriel Lord (Heriot-Watt), Michael Mackey (McGill), Konstantin Mischaikow (Georgia Tech), Louis Pecora (NRL, Washington), Arkady Pikovsky (Potsdam), Mikhail Rabinovich (UCSD), John Rinzel (New York), Jon Rubin (Pittsburgh), Ian Stewart* (Warwick), Peter Tass (Jülich), John Tyson (Blacksburg, Virginia).

*to be confirmed.

Location and cost: The conference 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 £480, includes accommodation, breakfast and dinner from dinner on Sunday 25 September 2005 to breakfast on Saturday 1 October 2005, and lunch and refreshments during the days that lectures take place. Some financial support is available for younger researchers. Participants who wish to attend but do not require the Conference Package will be charged a registration fee of £35. Self-supporting participants are very welcome to apply.

Further information and application forms are available from the web at: www.newton.cam.ac.uk/programmes/PFD/pfdw04.html. Completed application forms should be sent to Tracey Andrew, Programme & Conference Secretary, Isaac Newton Institute, 20 Clarkson Road, Cambridge CB3 0EH or via email to: t.andrew@newton.cam.ac.uk.

Closing date for the receipt of applications is **30 April 2005**.

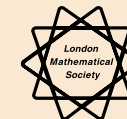
EPSRC

ALGEBRAIC TOPOLOGY

LMS/EPSRC Short Course

University of Wales Swansea, 10–16 July 2005

Organiser: Dr Francis Clarke



Algebraic Topology attempts to solve topological (or geometrical) problems by translating them into algebra. Three parallel lecture courses will focus on the most successful way of doing this: by means of generalised (co-)homology theories.

Dr Sarah Whitehouse (Sheffield) will provide an introduction to generalised (co-)homology theories, from K-theory to tmf, their multiplicative structures and their operations.

The computation of generalised (co-)homology groups is highly non-trivial. Spectral sequences are a key technique. Professor John McCleary (Vassar) will introduce the notion of a spectral sequence and show how computationally useful they can be.

Professor John Hunton (Leicester) will concentrate on studying (co-)homology theories from the perspective of stable homotopy theory, concluding with an introduction to the rich properties of recent models of categories of spectra.

The course is aimed at PhD students in Algebraic Topology but the themes may also interest students in other, adjacent fields. Prerequisites will be kept to a minimum. As well as the three courses, there will be tutorials, problem sessions and supplementary lectures. Further details may be obtained at www-maths.swan.ac.uk/AT-short-course.

The registration fee is £100. The accommodation costs for all UK-based research students are covered by EPSRC. Participants must pay their own travel costs. EPSRC-supported students can expect that their registration fees and travel costs will be met by their departments from the EPSRC Doctoral Training Account. Postdocs and non-UK students will be required to pay their own subsistence costs.

Application forms may be obtained from Isabelle Robinson, Administrative Officer, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (email: robinson@lms.ac.uk, fax: 020 7291 9978) or an on-line form is available on the LMS website: www.lms.ac.uk/activities/research_meet_com/short_course/26_poster.html.

Numbers will be limited and those interested are advised to make an early application. The closing date for applications is **Friday 13 May 2005**. Completed forms should be returned to the Administrative Officer by email, fax or post (details above). All applicants will be contacted by the London Mathematical Society approximately one week after this deadline; we will not be able to give information about individual applications before then. Please do not send any money until we ask.

ICMS WORKSHOP

Coagulation-Fragmentation Processes: Theory and Applications

<http://www.icms.org.uk/meetings/2005/coagfrag>
Edinburgh, 4–8 July 2005

Organising Committee

Fernando da Costa (CAMGSD, Instituto Superior Técnico, Lisboa)
Michael Grinfeld (Mathematics, University of Strathclyde)
Wilson Lamb (Mathematics, University of Strathclyde)
Jonathan Wattis (Mathematical Sciences, University of Nottingham)

The meeting is organised in collaboration with The Centro de Análise Matemática, Geometria e Sistemas Dinâmicos (CAMGSD) of Instituto Superior Técnico, Lisboa, Portugal.

Workshop Summary

The aim of this workshop is to bring together the many disparate groups of researchers who work on coagulation-fragmentation (CF) equations and related processes. A key feature will be the exchange of ideas between theoreticians and practitioners involved with CF equations. It will be of particular interest to:

- Mathematicians such as applied and numerical analysts and probabilists who study various aspects of CF equations
- Physicists and Chemists who derive CF equations in areas such as polymerisation processes, formation of galaxies, and phase separation in alloys;
- Industrialists and Engineers who apply processes involving coagulation and fragmentation in the design of new materials and of efficient manufacturing techniques.

Invited speakers

- | | |
|--|--------------------------------------|
| • Peter Coveney (UCL) | • Alexander Lushnikov (Helsinki) |
| • Fereydoon Family (Emory) | • Barbara Niethammer (Berlin) |
| • Antonio Fasano (Firenze) | • Robert Pego (Carnegie Mellon) |
| • Ian Ford (UCL) | • Sotiris Pratsinis (ETH-Zentrum) |
| • Nicholas Fournier (Inst. Elie Cartan) | • Derek Richardson (Maryland) |
| • Paul Krapivsky (Boston) | • Wolfgang Wagner (Weierstraß Inst.) |
| • Philippe Laurençot (Univ. Paul Sabatier) | • Peter Walde (ETH-Höggerberg) |
| • François Leyvraz (Mexico) | • Robert Ziff (Michigan) |

The organisers expect to invite around twenty 30-minute contributed talks and a poster session.

Applications

Applications are now invited. (See the website for an online form) Applications and payment should normally be received by **Monday 6 June**. Anyone wishing to be considered for a contributed talk should complete their application by **Monday 2 May**.

THE INTERNATIONAL CENTRE FOR MATHEMATICAL SCIENCES
14 India Street, Edinburgh EH3 6EZ.

Tel: +44 (0)131 220 1777; Fax: +44 (0)131 220 1053, Email: enquiries@icms.org.uk

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 2005

- 3-9** Cellular & Diagram Algebras in Mathematics & Physics, Oxford University (335)
4-7 Mathematics 2005, Liverpool University (334)
10-15 Euclidean Harmonic Analysis LMS/EP SRC Short Course, Edinburgh University (334)
13 Burnside Lecture Theatre Ceremony, Greenwich University (336)
20 Scalar Mixing in Fluid Flows & Mappings Meeting, Cambridge University (335)
21-22 Turbulence, Twist & Treacle Meeting, Cambridge University (334)
29 Edinburgh Mathematical Society Meeting, Stirling University (330)

MAY 2005

- 11** Geometric Approaches to Fluids & Liquid Crystals Meeting, Southampton University (336)
12-14 Groups in Galway Conference, National University of Ireland, Galway (336)
13-14 Algebra & Representation Theory in the North Meeting, York University (336)
18 LMS Midlands Regional Meeting, Birmingham (336)
19-21 Fusion Systems, Representation Theory and Groups LMS Workshop, Birmingham
20 Edinburgh Mathematical Society Meeting, St Andrews University (330)
22 Combinatorics Colloquium, Reading University (335)
23-28 Algebras & Representation Theory

- Conference, Beijing, China (336)
25 Women in Mathematics Day, De Morgan House, London (336)
29-30 Homology, Geometry & Combinatorics of Representations Workshop, Beijing, China (336)
29-4 June Topics on Stochastic Processes LMS/EP SRC Short Course, University of Wales Swansea (335)

JUNE 2005

- 8-11** Operator Theory & Complex Analysis Advanced Course, Seville, Spain (334)
8-15 Fejér-Riesz Conference, Eger, Hungary (335)
10 LMS Meeting, Oxford
17 LMS Meeting, London

JULY 2005

- 4** Scalar Mixing in Fluid Flows & Mappings Meeting Exeter University (335)
4-8 Problems & Perspectives Symposium, Cadi Ayad Université, Marrakech (335)
4-8 Pure Model Theory Workshop, East Anglia University (336)
4-8 Coagulation-Fragmentation Process ICMS Workshop, Edinburgh (336)
4-9 Nonlinear Wave Phenomena LMS/EP SRC Short Course, Reading University (336)
7-9 International Colloquium, Monst-Hainaut University, Belgium,
8 LMS Northern Regional Meeting, York
10-14 Mathematical Modelling and Applications International Conference (ICTMA12), City University, London (321)
10-15 British Combinatorial Conference, Durham University (329)
10-16 Algebraic Topology LMS/EP SRC Short Course, University of Wales, Swansea (336)
11-15 Inverse Problems in Engineering Conference: Theory & Practice, Cambridge University (320)
11-15 Model Theory, Algebraic & Analytic Geometry Euro Conference, INI, Cambridge (332)

**WILLIAM VALLENCE DOUGLAS HODGE
DE MORGAN MEDALLIST
1959**



Professor Sir William Hodge received the De Morgan Medal on 19 November 1959. Extract from the President's address: "Hodge has long been recognized throughout the world as one of its leading geometers. Early in his career he solved a long outstanding problem by proving that a multiple integral of the first kind on an algebraic variety always has non-zero periods. His most impor-

tant work has been his creation and exploitation of the theory of harmonic integrals, and his book *The Theory and Applications of Harmonic Integrals* was a major contribution to the progress of mathematics. The Society is happy to honour one who has taken a leading part in its affairs in the past, and has always had its interests at heart."