

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
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Friday 17 June
London
J. Barrow-Green
R. Jozsa
(Naylor Lecture)
R. Penrose
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Friday 8 July
York
Northern Regional
Meeting
O. Horodecki
C. Bennett

Monday 5 September
Bristol
South West & South
Wales Regional
Meeting
T. Tao
V. Bergelson

LOOKING AT THE FUTURE OPTIONS FOR THE IMA AND LMS

The IMA and the LMS have been working increasingly closely together over the past few years, in order to serve their members better and to speak for mathematics with a unified voice. In November 2003 the Councils of the two societies decided to ask a joint working party (called the 'Framework Study Initiative' or FSI group) to consider the nature of their collaboration and prepare a discussion paper that describes a range of options for the two organisations' futures.

The report of the FSI group is being sent to members of the two societies; copies for LMS members are included with this *Newsletter*.

The Councils of both societies wish to hear the views of their members on the different frameworks considered in the report, preferably by the middle of October this year. Also enclosed with this *Newsletter* is a sheet outlining the ways in which you can make your views known by letter or email or by attending one of the open meetings that will be held around the country between May and September, and joining in the discussions that will take place there.

Members of the LMS can write to the President at De Morgan House or email to fsi@lms.ac.uk. Details of the consultation process will be published on the societies' websites and in the *LMS Newsletter* and *IMA Mathematics Today*. We hope that in addition plenty of informal discussions will take place, at other meetings and within departments.

The responses to this consultation will be considered carefully by the two Councils in November 2005 and again in March 2006. After that, the next steps will depend on the opinions received, but may involve a more detailed report produced by the FSI group taking account of these responses. Any proposals concerning the future structure of the two societies would be based on a further, more formal consultation following a second report.

Members are urged to think carefully about the issues raised in this report, and to contribute to the consultation, in order to secure the best possible future for mathematics.

Editorial Note

We apologize for the late arrival of this month's *Newsletter*, but it was felt important to await the FSI report for mailing.

David Chillingworth
Editor

COUNCIL DIARY

18 March 2005

As members will be aware, a working group has been meeting over the past year to consider the future relationship between the Society and the Institute of Mathematics and its Applications (IMA). Council received the working group's report and agreed that the next stage was consultation with the membership of the Society. The report and details of the consultation mechanisms are being sent with this issue of the *Newsletter*.

As mentioned in the January Council Diary, the Society presented written evidence to the current Inquiry into Strategic Science Provision (see the LMS website for the text). Five learned societies including the LMS were invited to present oral evidence to the House of Commons Select Committee, and we are most grateful to Professor Amanda Chetwynd for representing the Society. Hopefully the Select Committee will have been impressed by our emphasis of the special nature and importance of mathematics within the sciences.

The question of closure or 'downsizing' of university mathematics departments arose at

several points during the Council meeting. The submission to the Inquiry mentioned above included the Society's policy statement on the academic case for universities to maintain strong mathematics departments. These issues were also referred to in answers compiled by the Council for Mathematical Sciences to a series of questions raised by former Secretary of State Charles Clarke on the role of mathematics. The Society is keen to support departments that encounter difficulties, and should be informed as soon as there is any hint of a possible reduction in provision.

Council received a report from the Society's Maths Promotion Unit, set up in 2004 to increase public and political awareness of the 'maths message'. Activities during the Unit's first year included 15 press releases, promotion of activities such as the Popular Lectures and the Women in Mathematics Day, launching the Mathscareers website and responding to numerous enquiries from the media and public. The Unit has provided input to the Society's responses to several consultations, and in particular is compiling a comprehensive database on mathematics participation and provision at all levels to back up advice

cont'd

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
- 6.15 pm Open discussion on the LMS-IMA Frameworks Study Initiative
- 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.

LMS Newsletter

General Editor: Dr D.R.J. Chillingworth (D.R.J.Chillingworth@maths.soton.ac.uk)

Reports Editor: Dr S.A. Huggett (s.huggett@plymouth.ac.uk)

Reviews Editor: Professor M.P.F. du Sautoy (dusautoy@maths.ox.ac.uk)

Administrative Editor: Miss S.M. Oakes (oakes@lms.ac.uk)

Editorial office address: London Mathematical Society, De Morgan House,
57-58 Russell Square, London WC1B 4HS (tel: 020 7637 3686; fax: 020 7323 3655;
email: oakes@lms.ac.uk, web: www.lms.ac.uk)

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given to policy makers and to challenge inaccurate statements. Members of Council felt that the Unit was doing very valuable work and expressed the hope that other interested bodies might contribute to its funding in the future.

We all know the convenience of having the more recent issues of the Society's journals available on line, and it has become frustrating to have to seek out printed versions of older volumes. Thus the Society is investigating the 'retrodigitization' of its journals. Most recently Council agreed the first steps in a scheme in conjunction with Turpion, Moscow, for extending the digital archive of the Russian translation journals *Sbornik: Mathematics*, *Izvestiya: Mathematics*, and *Russian Mathematical Surveys*. Electronic versions are currently available from 1995, and the aim is to make issues back to 1959 available on line.

Kenneth Falconer

LMS SUPPORT FOR MATHEMATICS AT A REGIONAL LEVEL

Council has asked Programme Committee to review the various ways in which the Society helps to support mathematics at a regional level, as opposed to our work at a national or international level, or our support for individual mathematicians or conferences. This note is intended to set out what we currently do, and to invite observations and suggestions for future developments.

The most obvious means by which we try to give such support is through our Regional Society Meetings. Many of these have been very successful at bringing together a large group of mathematicians from neighbouring departments, and the associated workshops have always been very valuable to the specialists (from all over the UK and beyond) who attend them.

Scheme 3 (for joint research groups) also provides support at a regional level: the research

groups are usually fairly close to each other, and judging by the demand this is viewed as a very valuable scheme. Schemes 2 (for visitors to the UK who give lectures in at least three separate institutions) and 4 (for collaborative research) are also in demand, and arguably they also provide support at a regional level. However, it is not necessarily the case that the lectures in Scheme 2 or the collaborators in Scheme 4 will be in neighbouring departments.

The demand for Scheme 6 (connectivity grants) is very low, and it may be that we should consider replacing it with something which helps mathematicians in neighbouring departments to collaborate and support each other.


Please send any comments you would like to make to Sylvia Daly (grants@lms.ac.uk) or the Programme Secretary, Stephen Huggett (s.huggett@plymouth.ac.uk).

LMS PROGRAMME AND CONFERENCE FUND

Members are reminded that the Society's Programme and Conference Fund is used to provide conference grants (Scheme 1), grants to visitors to the UK (Scheme 2), grants to support joint research groups (Scheme 3), collaborative small grants (Scheme 4), international short visits (Scheme 5) and connectivity grants (Scheme 6).


For full details of all the Schemes please see the article in the December 2004 *Newsletter* (No. 332, pp 20-24), and also the Society's website (www.lms.ac.uk/activities/prog_com/index.html). Queries regarding applications can be addressed to the Programme Secretary (tel: 01752 232710, e-mail: s.huggett@plymouth.ac.uk) or the Secretary to Programme Committee, Sylvia Daly (tel: 020 7291 9979, email daly@lms.ac.uk) who will be pleased to discuss proposals informally with potential applicants and give advice on the submission of an application.

Please note that grant applications will not be considered between mid-June and mid-



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September. The next deadline for receipt of applications is **31 May 2005** and these will be considered at the meeting on 18 June 2005. 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/email
6 May 2005 Edinburgh	Scottish Algebra Day	I. Gordon ig@maths.gla.ac.uk
10-12 May 2005 Imperial College	Fourier Analysis and Hyperbolic PDEs	M. Ruzhansky ruzh@ic.ac.uk
23-25 May 2005 Gregynog Hall, Powys	The University of Wales Gregynog Mathematics Colloquium	G.W. Roberts g.w.roberts@bangor.ac.uk
16-17 June 2005 BICOM, Brunel	BICOM Workshop on Boundary Elements	N. Heuer norbert.heuer@brunel.ac.uk
26-30 June 2005 Royal Agricultural College, Cirencester	Workshop on Applied Inverse Problems 2005	Y.V. Kurylev y.v.kurylev@lboro.ac.uk
4-8 July 2005 East Anglia	Workshop on Pure Model Theory	D.M. Evans d.evans@uea.ac.uk
8-10 July 2005 Durham	Algorithms and Complexity in Durham	S. Dantchev s.s.dantchev@durham.ac.uk
18-19 August 2005 Southampton	New Directions In Numerical Relativity (INI Satellite Meeting)	C. Gundlach cg@maths.soton.ac.uk
24-26 August 2005 Leicester	Model Reduction and Coarse-Graining Approaches for Multiscale Phenomena	A. Gorban ag153@le.ac.uk
1-3 September 2005 Bristol	British Logic Colloquium 2005	P. Welch p.welch@bris.ac.uk
12-13 September 2005 Liverpool	Fifth UK Conference on Boundary Integral Methods	K. Chen k.chen@liverpool.ac.uk
19 November 2005 QUB	Belfast Functional Analysis Day 2005	M. Mathieu m.m@qub.ac.uk
5 January 2006 Cardiff	Mathematical Software in Applied Mathematics	M. Marletta scmmm3@cs.cf.ac.uk

LMS GRANTS

Grants were awarded by the following LMS Committees from September 2004 – March 2005.

Computer Science Committee: Scheme 7 Grants

Name	Institution	Purpose	Amount
A. Krokhin	Durham	To aid collaboration with various academics at the Winter 2004 meeting of the Canadian Mathematical Society	£500
M. Paterson	Warwick	To aid collaborative visit with U. Zwick (Tel-Aviv, Israel) in 2005	£500

Education Committee: Small Grants

Name	Institution	Purpose	Amount
A. Watson	Oxford	Contribution to help enable an Exploratory Conference on Exemplification	£500

Women in Mathematics Committee: Child-care Grants

Name	Institution	Purpose	Amount
W. Brueggemann	Birmingham	Research visit to Livermore, California, USA	£150
S. Rees	Newcastle	Conference and research visits in various USA locations	£150
R. Khamin	Glasgow	Research visit to Duke University, North Carolina, USA	£150

WOLF PRIZE 2005

The 2005 Wolf Prize has been awarded to Gregory A. Margulis (Yale University, New Haven, Connecticut, USA) for his monumental contributions to algebra, in particular to the theory of lattices in semi-simple Lie groups, and striking applications of this to ergodic theory, representation theory, number theory, combinatorics, and measure theory; and to Sergei P. Novikov (University of

Maryland, College Park, Maryland, USA; and the L.D. Landau Institute for Theoretical Physics, Moscow, Russia) for his fundamental and pioneering contributions to algebraic and differential topology, and to mathematical physics, notably the introduction of algebraic-geometric methods. The two share the \$100,000 prize. Sergei Novikov is an Honorary Member of the London Mathematical Society.

ABEL PRIZE 2005

The Norwegian Academy of Science and Letters awarded the Abel Prize for 2005 to Peter D. Lax, Courant Institute of Mathematical Sciences, New York University, and an Honorary Member of the London Mathematical Society. Peter Lax receives the Abel Prize for his groundbreaking contributions to the theory and application of partial differential equations and to the computation of their solutions.

Peter Lax has been described as the most versatile mathematician of his generation. He stands out in joining together pure and applied mathematics, combining a deep understanding of analysis with an extraordinary capacity to find unifying concepts. He has had a profound influence, not only by his research, but also by his writing, his lifelong commitment to education and his generosity to younger mathematicians.

His work has been recognized by many honours and awards. He was awarded the National Medal of Science in 1986, presented by President Ronald Reagan at a White House ceremony. Lax received the Wolf Prize in 1987 and the Chauvenet Prize in 1974 and shared the American Mathematical Society's Steele Prize in 1992.

Lax became a member of the US National Academy of Sciences in 1962. He has also been both President (1977-80) and Vice President (1969-71) of the American Mathematical Society.

RAMANUJAN PRIZE

The Ramanujan Prize for Young Mathematicians from Developing Countries is a new prize which will be awarded by the International Centre for Theoretical Physics in Trieste, through a selection committee appointed in conjunction with IMU. The first winner will be announced in 2005. Nominations should be sent no later than **31 July 2005** to: director@ictp.it. For further information, see www.ictp.trieste.it/~sci_info/awards/Ramanujan/Ramanujan.html.

STRATEGIC SCIENCE PROVISION IN ENGLISH UNIVERSITIES

The Select Committee on Science and Technology published its report on strategic science provision in English universities on 7 April.* The Society provided a written submission (available on the Society's website) and Professor Amanda Chetwynd, Vice-President, gave oral evidence to the Committee.

The Select Committee's report emphasises the importance of all STEM (Science, Technology, Engineering and Mathematics) subjects to the national well-being and the need for a strategic approach to increase the flow of STEM graduates into the workplace. It supports the recommendations of the Smith inquiry into Post-14 Mathematics as a basis for reinvigorating mathematics in schools and colleges, and recommends the introduction of bursaries to encourage entry to STEM subjects in higher education.

The report recognises the need for diversity of provision in STEM disciplines and draws attention to the effects of the very sharp cut-off in research funding between grade 4 and 5 departments. It argues that the full cost of teaching must be accurately assessed and met.

In order to meet regional needs the Select Committee recommends a 'hub and spokes' model with at least one department in each core STEM subject within each region funded at the highest level for its research. That department becomes a research hub of the region for its subject, supporting and collaborating with other institutions. The Society is not convinced of the validity of this model in mathematics. It continues to hold that single honours courses in mathematics need departments that are research active, and that any university with a STEM presence must have an identifiable and accessible core of active mathematicians.

The Society is considering the report further.

*www.publications.parliament.uk/pa/cm/cmsctech.htm

LONDON MATHEMATICAL SOCIETY

Friday 17 June 2005

Chemistry Auditorium, Christopher Ingold Building,
University College London, 20 Gordon Street, London WC1.

3.00–3.10 Society Meeting

3.10–3.40 June Barrow-Green (Open University)

Launch of the new LMS book
'The Book of Presidents 1865-1965'
'An indulgent freedom':
100 years of presidential addresses

3.40–4.40 Richard Jozsa (Bristol University)

2004 Naylor Prize Lecture
*An invitation to quantum computation
and recent theoretical developments*

4.40–5.00 Tea

5.00–6.00 Roger Penrose (Oxford University)

Quanglement, spin-networks, and twistor theory


A reception at De Morgan House follows the Book Launch and Society Meeting at which the Society is showcasing the *Faces of Mathematics* exhibition, a display of the photographs and research of twenty of the most successful and influential mathematicians in the UK by Marc Atkins and Nick Gilbert. Professor Frances Kirwan will be welcoming guests to the reception at 6.30 pm.

A dinner will be held at 7.30 pm. Those wishing to attend should contact Susan Oakes (oakes@lms.ac.uk) for further information.


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

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ROYAL SOCIETY OF EDINBURGH

President

Sir Michael Atiyah, former President of the LMS, has agreed to become President-elect of the Royal Society of Edinburgh and will take office this October. Sir Michael will be only the second person to have been President of both The Royal Society of Edinburgh and The Royal Society of London - the first being Lord Kelvin.

NEWS FROM THE INTERNATIONAL MATHEMATICAL UNION

In recent years the International Mathematical Union has been paying special attention to the promotion of mathematics in developing countries. That there is abundant mathematical talent in the developing countries is seen from the success of some of these countries in the International Mathematical Olympiad competitions as well as from the presence of a large number of students from these countries in the graduate schools in the West. To transform this talent into excellence in mathematicians in these countries needs a lot of exposure to deep mathematics at the frontiers of current research. Individual mathematicians working in advanced nations can contribute very meaningfully to this by visiting mathematical centres in third world countries for extended periods of time giving courses of lectures and otherwise interacting with students and researchers (such visits are taking place but they are far and few between). Short visits are also of course useful but are of limited value. One hopes that IMU's increased interest in promoting mathematics in the third world will act as a catalyst for increasing this kind of interaction.

Madabusi S. Raghunathan
Member of the IMU Executive Committee

IMU and ICMI nominating committees

These Nominating Committees have been formed by the procedures described at www.mathunion.org/Organization/NomComms.html and will work to propose nomination slates for officers and members of the IMU and ICMI Executive Committees, of CDE (Commission on Development and Exchanges) and ICHM (International Commission on the History of Mathematics). A formal call for nominations will be sent to the Adhering Organizations of IMU in August 2005.

The members of the IMU Nominating Committee are:

- Ludwig Faddeev (Chair, Russia)
- John Ball (President IMU, UK)
- Christian Berg (Denmark)
- Jennifer Chayes (USA)
- Gil Kalai (Israel)
- Shigefumi Mori (Japan)
- Wieslaw Plesniak (Poland)

The members of the ICMI Nominating Committee are:

- Mogens Niss, Chair (Denmark)
- John Ball, (IMU President, UK)
- Hyman Bass (ICMI President, USA)
- Victor Vassiliev (Russia)
- Tomas Recio (Spain)
- Günter Toerner (Germany)
- Lim-Teo Suat Khoh (Singapore)

The Developing Countries Strategy Group

The Developing Countries Strategy Group (DCSG) was established by IMU in order to augment in kind and duration IMU's support of mathematics and the study of mathematics in developing countries. In particular, DCSG will be available as a 'clearinghouse' for the activities of individual countries and mathematics societies in this direction, in order to enhance the effects of those individual initiatives, and ensure that they complement and reinforce each other. Enthusiastically responding to IMU President

John Ball's New Year appeal, committees, member societies and their affiliated bodies have been coming forward with information on their initiatives in developing countries and have been listing opportunities for participation in these efforts. All this is now being publicized on DCSG's website (www.ictp.it/~dcsg). (The website is still 'under construction', so please excuse any anomalies or omissions.)

Suggestions from readers in the international mathematical community as to opportunities to support mathematicians in the developing world, such as programs of sponsorship of attendance at conferences, research collaborations, visiting lectureship programs, joint degree programs, etc., will be gratefully received, and posted on the website. They may be e-mailed to DCSG's Administrative Secretary at cde@ictp.it.

Another 'clearinghouse' website, the Clearinghouse for African Mathematicians (CAM), whose purpose – as its name suggests – is to act as a clearinghouse for activities specifically in support of mathematicians and mathematics educators in Africa, is also in the initial stages of its development under the direction of Professor Le Dung Trang, Head of Mathematics at the Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy, and may be viewed at www.ictp.it/~cam.

Among its recent initiatives, DCSG has been active in support of the African Mathematics Millennium Science Initiative, a consortium of centers of advanced mathematics education and research institutes in sub-Saharan Africa. DCSG has also assisted ICTP in the establishment of ICTP's newly announced Ramanujan Prize for mathematics done in the developing world. The latest initiative to which DCSG has offered support is the First African Regional Congress of the International Council of Mathematics Instruction (ICMI), which will take place at the University of the Witwatersrand in

Johannesburg, South Africa, in June this year. Finally, DCSG is about to begin work on the IMU's travel grant program which funds mathematicians working in developing countries to participate in ICM2006 in Madrid, Spain.

IMU/DCSG gratefully acknowledges major support in 2004 by the Niels Henrik Abel Memorial Fund.

Herb Clemens
Chair of DCSG

ICM 2006

A list of the new satellite conferences approved at the IMU meeting in Madrid (4 March 2005):

- *Associative and non-associative algebraic structures and applications* Oviedo (Asturias), 18-20 August.
- *Geometric and Topological Combinatorics Workshop* Alcalá de Henares, 31 August – 5 September.
- *Noncommutative Algebra* Granada, 31 August – 6 September.
- *Mathematical neuroscience* Sant Julià de Lòria (Andorra), 1 – 4 September.
- *Barcelona Analysis Conference* Barcelona, 4 – 8 September.

EPSRC SENIOR MEDIA FELLOWSHIP

Marcus du Sautoy has been awarded a Senior Media Fellowship from the EPSRC. The fellowship will start in October 2005 and will run for three years. Marcus aims to build on the media contacts he has established to date to communicate the excitement of doing mathematics to a wide audience. This will include continuing to write feature articles for the broadsheets but also targeting specialised publications with a large readership. For example, he recently wrote an article 'Insects in the Prime of Life'

about the prime number cicadas for the Friends of the Earth magazine *Earthmatters*. Following on from the success of his series for Radio 4 'Five Shapes' (archived at <http://db.bbc.co.uk/radio4/science/five-shapes.shtml>), Marcus will also aim to develop more ideas for radio series incorporating mathematical themes. Getting mathematics on to television is of course the toughest nut to crack. Marcus hopes to continue his collaboration with BBC4 after his experience of presenting 'Mindgames', the mathematical and logical game show on BBC4. Marcus plans to combine these proactive projects with a more responsive mode, being available for comment on TV, radio and in print media on mathematical stories as they arise. If LMS members have stories that they think might make good news then Marcus will be happy to hear from you.

ICMI AWARDS

The Executive Committee of the International Commission on Mathematical Instruction (ICMI) has recently created two awards in mathematics education research:

- the Hans Freudenthal Award, for a major program of research on mathematics education;
- the Felix Klein Award, for lifelong achievement in mathematics education research.

The first recipients of these two awards, Professor Guy Brousseau for the Felix Klein Award and Professor Celia Hoyles for the Hans Freudenthal Award, formally received them at the opening ceremony of ICME 10, in July 2004.

The ICMI Awards Committee is now open to suggestions from the mathematics educational community for nominations for the 2005 awards. Nominations should be accompanied by a statement of support, and the details of two or three referees who can be

contacted for further information. All nominations should be sent via post or email to Michèle Artigue, Chair of the ICMI Awards Committee, IREM, Case 7018, Université Paris 7, 2 place Jussieu, 75251 Paris Cedex 05 France, email: artigue@math.jussieu.fr by **31 July 2005**.

ADVISORY COMMITTEE ON MATHEMATICS EDUCATION

The Advisory Committee on Mathematics Education (ACME) was established by the Joint Mathematical Council and the Royal Society in 2002 to provide an independent body able to speak authoritatively to Government on matters of mathematics education. The LMS was, and remains, a strong supporter of ACME.

Recent news from ACME:

ACME Projects: ACME's feasibility study ensuring a high quality 'local offer' in Continuing Professional Development in mathematics, as part of the planned establishment of the National Centre for Excellence in the Teaching of Mathematics, continues to progress well with three local soundings meetings held in Greater Manchester, Cambridgeshire and Cornwall, and data gathered from a wide range of stakeholders. For further information visit: www.royalsoc.ac.uk/acme/maths-teaching.htm.

Post14 Mathematics: QCA and ACME jointly organised a workshop on 'functional mathematics' on 3 March in London. It is expected that a summary of the discussion will be available on both QCA and ACME websites in April. ACME is also representing the views of the mathematics community on a QCA Post14 Mathematics Advisory Group which met again on 14 March and was attended by the contractors for post-14 mathematics pathways development. It will meet again in May. For further information visit: www.royalsoc.ac.uk/acme/post14.htm.

LONDON MATHEMATICAL SOCIETY

Friday 10 June 2005

The Mathematical Institute at the University of Oxford announces the following colloquium in conjunction with an Ordinary Meeting of the London Mathematical Society.

4.25 pm Professor Isadore Singer will be admitted as an Honorary Member of the London Mathematical Society


4.30 pm Professor Isadore Singer (MIT)
The Projective Dirac Operator and its Fractional Analytic Index

The meeting and talk will be in Lecture Room 2 (L2).


The colloquium will be followed by an informal reception in the Mathematical Institute Common Room and those attending the ceremony and talk are cordially invited.

The Oxford Mathematics Colloquia are partly supported by Oxford University Press.

For further information contact:
Nims Damney, Mathematical Institute, 24-29 St Giles', Oxford OX1 3LB (nims@maths.ox.ac.uk, tel: 01865 273546) or Susan Oakes, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (oakes@lms.ac.uk, tel: 020 7291 9977).



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History of Mathematics, Volume 24; 2003; 422 pages; Hardcover; ISBN 0-8218-2623-9; List \$89; All AMS and LMS members \$71; Order code HMATH24

Essays in the History of Lie Groups and Algebraic Groups
Armand Borel, *Institute for Advanced Study, Princeton, NJ*

Professor Borel brings a unique perspective to this study. As an important developer of some of the modern elements of both the differential geometric and the algebraic geometric sides of the theory, he has a particularly deep understanding of the underlying mathematics.

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Amann, H., Universität Zürich, Switzerland /
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FRANK HARARY

Professor Frank Harary, who was elected a member of the London Mathematical Society on 20 December 1962, died on 4 January 2005.

JACK E. MCLAUGHLIN

Professor Jack McLaughlin who was elected a member of the London Mathematical Society on 18 January 1962, died in January 2005, aged 81.

ZORAN REUT

Dr Zoran Reut, who was elected a member of the London Mathematical Society on 18 January 1991, died in January 2005, aged 60.

THE EUROPEAN RESEARCH COUNCIL

Plans to set up a European Research Council are well advanced. The proposal has the backing of the European Commission as well as of the Council of Ministers and looks certain to be part of the Framework 7 programme though, as ever, the amount of funding is yet to be decided. It is unlike other support through the European Union in that, as things stand, there will be no thematic constraints and no social constraints on projects: only the science, as judged by peer review, will be taken into account.

The European Research Council will have an independent governing council, whose members are expected to reflect the broad disciplinary scope of research, while not acting as representatives of a particular discipline. Indeed, with only twenty members and covering the social sciences and humanities as well as science and engineering, it will be impossible to represent all disciplines effectively.

The European Mathematical Society is one of a very few European organisations which have been asked to suggest names for the

governing council (and will have responded by the time this article appears). This is one small success in the continuing struggle to get mathematics adequately recognised and represented in decision-making bodies in Europe.

David Salinger
EMS Publicity Officer

ISAAC NEWTON INSTITUTE

The Isaac Newton Institute for Mathematical Sciences is a national research institute in Cambridge. It aims to bring together mathematical scientists from UK universities and leading experts from overseas for concentrated research on specialised topics in all branches of the mathematical sciences from pure mathematics, applied mathematics, and statistics, to engineering, computer science, theoretical physics and mathematical biology.

At any time there are two visitor programmes in progress, each with about twenty scientists in residence. Included within these programmes are periods of more expanded activity including instructional courses and workshops. Fifty-nine programmes have now been completed the most recent being *Magnetohydrodynamics of Stellar Interiors* and *Quantum Information Science*. The programmes currently taking place are *Model Theory and Applications to Algebra and Analysis* and *Developments in Quantitative Finance*.

Call for Proposals

The Institute now invites new proposals for programmes for 2007 onwards. A choice of six-month or four-month programme is available and short programmes of four weeks duration are invited for July/August each year. These short programmes are intended for more narrowly focused topics or for subjects that may be at an embryonic stage of development, and for which a longer programme might not be as yet justified.

Proposals should be addressed to the

Director, Sir John Kingman (Isaac Newton Institute for Mathematical Sciences, 20 Clarkson Road, Cambridge CB3 0EH). Proposers should state whether they would prefer a four-month, six-month or four-week programme. The Institute is pleased to receive proposals at any time. Proposals for consideration at the next meeting of the Scientific Steering Committee (October 2005) should be received by **31 July 2005**.

If you have any queries regarding submission of proposals please do not hesitate to contact the Director. Information is also available at www.newton.cam.ac.uk/callprop.html.

VISIT OF PROFESSOR G.B. SHABAT

Professor George Shabat (Moscow University of Humanities, Moscow State University and the Independent University) will be visiting the UK from 29 April to 14 May, supported by an LMS Scheme 2 grant. Professor Shabat is one of the leading experts in algebraic geometry. He will give two lectures at Leeds on 3 and 6 May (contact A. Mikhailov), a lecture at Loughborough on 11 May (contact A.P. Veselov) and at Southampton on 13 May (contact G.A. Jones). For further details contact Alexander Mikhailov (A.V.Mikhailov@leeds.ac.uk).

VISIT OF DR R.J. LOY

Dr Richard J. Loy (Australian National University, Canberra, Australia) will visit the UK in June 2005. His visit is supported by an LMS Scheme 2 grant. Dr Loy will visit the following universities:

- University of Newcastle-upon-Tyne, where he will give a talk entitled *Projections on Banach algebra* on Wednesday 8 June at 4 pm in Room L401, Merz Court (for further details see www.mas.ncl.ac.uk/~nmad1/analysis.html or contact Z.A. Lykova at Z.A.Lykova@newcastle.ac.uk).
- Lancaster University, where he will speak

on *Approximate amenability of sequence algebras* on Friday 17 June at 4 pm in Room B67, Fylde College (for further details contact N.J. Laustsen at n.laustsen@lancaster.ac.uk).

- University of Leeds, where he will present a seminar on *Projections on Banach algebras* on Tuesday 21 June at 3.30 pm in Room G, School of Mathematics (for further details, contact H.G. Dales at garth@maths.leeds.ac.uk).

VISIT OF DR V. ADLER

Dr Vsevolod Adler (Landau Institute for Theoretical Physics, Moscow) will be visiting Loughborough University between April 25 and May 25. Dr Adler is one of the leading experts in discrete integrable systems. He will be giving lectures at Imperial College, Leeds and Loughborough Universities on the following topics: Incidence theorems and integrable discrete equations, Yang-Baxter mappings and soliton equations, Discrete integrable equations related to elliptic curves. His visit is supported by an LMS Scheme 2 grant. For more information contact Professor A.P. Veselov (A.P.Veselov@lboro.ac.uk).

VISIT OF PROFESSOR YU. BAHTURIN

Professor Yuri Bahturin (Memorial University of Newfoundland and Moscow State University) is visiting the UK from 10-31 May. Professor Bahturin is a well-known algebraist with interests in Lie theory, Hopf algebras, and identities in algebras and groups. During his visit he will lecture at Manchester (10-15 May), Leicester (15-20 May), Oxford (20-26 May) and attend a conference at the University of Warwick. His visit is supported by an LMS Scheme 2 grant. For more information contact Alexander Piemet (sashap@ma.man.ac.uk).

VISIT OF DR R. EL-HARTI

Dr Rachid El-Harti (University Hassan I, Morocco) is visiting the Department of Mathematics and Statistics from 18 April – 30 May supported by an LMS International Short Visit grant. Dr El-Harti's research interests concern amenable Banach algebras and contractible Fréchet algebras. For further information contact Professor Stephen Power (email: s.power@lancaster.ac.uk, tel: 01524 593958).

VISIT OF PROFESSOR F. GHAHRAMANI

Professor F. Ghahramani (University of Manitoba, Winnipeg, Canada) is visiting the UK from March to May. His visit is partially supported by LMS Scheme 2 grants. During May Professor Ghahramani will give lectures the following universities:

- Newcastle, Wednesday 11 May at 4.00 pm on *Derivations from Beurling and Segal algebras*, contact Z.A. Lykova (Z.A.Lykova@newcastle.ac.uk).
- Fylde College, Lancaster University, Friday 13 May at 4.00 pm on *Approximately amenable Banach algebras*, contact N.J. Lausten (n.laustsen@lancaster.ac.uk).
- Oxford, Tuesday 17 May at 5.00 pm on *Approximately amenable Banach algebras*, contact C.J.K. Batty (charles.batty@sjc.ox.ac.uk).

VISIT OF PROFESSOR A. HELEMSKII

Professor A. Ya. Helemskii (Moscow State University, Moscow, Russia) is visiting the UK from March to May. His visit is partially supported by an LMS Scheme 2 grant. During May Professor Helemskii will talk on *Some questions of quantum functional analysis approached without matrices* at the following universities:

- Oxford, 3 May at 5.00 pm, contact

G. Vincent-Smith (gvs@maths.ox.ac.uk)

- Southampton, 6 May at 2.15 pm, contact J. Brodzki (j.brodzki@soton.ac.uk)
- University College, London, 10 May at 4.00 pm, contact L. Parnovski (leonid@math.ucl.ac.uk).

VISIT OF PROFESSOR I.V. KOMAROV

Professor I.V. Komarov (St. Petersburg University) will visit the University of Leeds from 2-14 May, partially supported by an LMS scheme 2 grant. He will give lectures at the following universities:

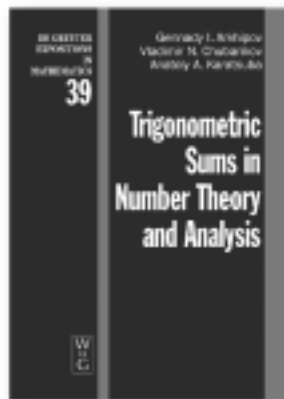
- Leeds, 4 May on *Quantum Goryachev-Chaplygin top. A brief review* (contact V.B. Kuznetsov),
- York, 9 May on *Poisson maps and Lax pairs for the so(4) Kowalevski top* (contact E.K. Sklyanin)
- Loughborough, 12 May on *A mapping between the Kowalevski gyrostat and the Clebsch top* (contact A.P. Veselov).
For further details contact V.B. Kuznetsov (V.B.Kuznetsov@leeds.ac.uk).

VISIT OF PROFESSOR DA-JUN ZHANG

Professor Da-jun Zhang (Shanghai University) will visit the University of Leeds from 1-15 June partially supported by an LMS scheme 2 grant. He will give lectures at the following universities:

- Leeds, 3 June on *Symmetries, conservation laws and Hamiltonian structures for Lax integrable systems* (contact V.B. Kuznetsov)
- York, 6 June on *Solutions in Wronskian form to soliton equations* (contact E.K. Sklyanin)
- Loughborough, 13 June on *Dynamics of some nonisospectral systems* (contact A.P. Veselov).
For further details contact V.B. Kuznetsov (V.B.Kuznetsov@leeds.ac.uk).

NEW RELEASE



Gennady I. Arkipov /
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ISBN 3-11-016266-0

WWW.DEGRUYTER.DE

The book presents the theory of multiple trigonometric sums constructed by the authors.

Following a unified approach, the authors obtain estimates for these sums similar to the classical I. M. Vinogradov's estimates and use them to solve several problems in analytic number theory. They investigate trigonometric integrals, which are often encountered in physics, mathematical statistics, and analysis, and present purely arithmetic results concerning the solvability of equations in integers.

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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 are:

- Darryl Holm (LANL, Imperial) *Euler-Poincaré geometry and the ideal dynamics of perfect complex fluids, including liquid crystals*
- Maurice Kléman (Paris) *Liquids with confocal conic domains*
- Maxim Zyskin (Bristol) *Topology and elastic energy of nematic liquid crystals in polyhedral cells*
- Colin Cotter (Imperial) *Discretisations that preserve the Euler-Poincaré structure of fluids.*
- Liz Mansfield (Kent) *Moving frames and fluids*
- Tim Sluckin (Southampton) *Exotic phase diagram topologies for liquid crystal Frederiks cells*

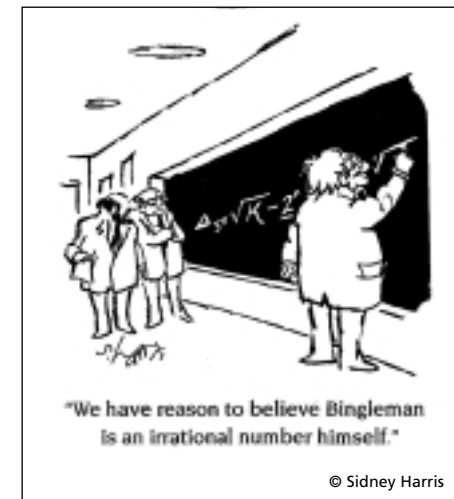
PANDA and hence NGMA are supported by the LMS under Scheme 3. For further details visit the website www.maths.soton.ac.uk/ngma or contact David Chillingworth (drjc@maths.soton.ac.uk) or Mark Roberts (M.Roberts@surrey.ac.uk).

READING ONE-DAY COMBINATORICS COLLOQUIUM

There will be a one day Combinatorics Colloquium at Reading University on Wednesday 25 May. The talks will be in the Mathematics Building (Rooms 113 and 314) in the morning and in the Physics Building in the afternoon. The first talk will be at 10.30 am and the last will finish around 5.30 pm. Everyone who is interested is invited to attend. The speakers and the titles of their talks are:

- H. Broersma (Durham) *Tutte sets in graphs: structural and algorithmic aspects*
- T.S. Griggs (Open) *Configurations and colourings in triple systems*
- S.A. Huggett (Plymouth) *Tutte polynomials of links, graphs, and matroids*
- M. Jerrum (Edinburgh) *Balanced matroids revisited*
- M. Johnson (Durham) *The source location problem*
- A. de Mier (Oxford) *On the lattice of cyclic flats of a matroid*
- J. Oxley (Louisiana) *The structure of the 3-separations of 3-connected graphs and matroids*
- D.J.A. Welsh (Oxford) *Graph polynomials: some questions*
- J. Wojciechowski (West Virginia University) *Induced cycles in powers of complete graphs*

Financial support is gratefully acknowledged from the British Combinatorics Committee, the London Mathematical Society and the Department of Mathematics at Reading University. For further details contact A.J.W. Hilton or visit the website at www.rdg.ac.uk/math/.



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MATHS MILLENNIUM PROJECT EVENT

On Thursday 19 May, 5.00 - 6.00 pm, at the Centre for Mathematical Sciences, Cambridge, Professor John Barrow will be speaking on 'Maths is Everywhere'.

What is mathematics and why does it 'work'? We will look at some of the ways in which mathematics can tell you things about the world that you can't learn in any other way. We will see how computers have extended the reach of human mathematicians, discover the simple nature of many 'hard' problems that no computer can solve, learn how to win at dice, understand how to coach some Olympic sports champions, and even discover whether the Premier Football League is just a random process. We meet the modern concepts of chaos and fractals, and see how they shed light on Abstract Expressionist art and art fraud. The talk is suitable for those aged 16 and over.

For free tickets please email Alison Boyle (mmp@maths.cam.ac.uk).

MATHS EVENT AT THE ROYAL INSTITUTION

On Thursday 19 May, 6.30 - 8.00 pm, at the Royal Institution, London, Dr Andrew Green will be speaking on 'The new renaissance in mathematical science'.

The Renaissance was a special time in the history of intellectual thought; a time when individuals could expect to understand the full range of current ideas from art to science and from engineering to philosophy. The story of science since this time has, however, been one of ever-increasing specialisation. This is an exciting time for mathematical scientists. A new subtlety in the way in which mathematics is applied to the world has emerged that has opened up new disciplines to mathematical analysis. Once again, it is possible for mathematical scientists to be renaissance men and women with careers

spanning areas as diverse as cellular biology, information theory, finance and economics, theoretical physics and ecology. Join Andrew as he discusses these ideas from the perspective of a theoretical physicist, using examples from a range of disciplines to illustrate the nature of this new connectivity in science.

To book visit www.rigb.org/rremain/calendar/detail.jsp?&id=175.

BELFAST FUNCTIONAL ANALYSIS DAY

This year's Belfast Functional Analysis Day (BFAD) will feature Professor Vladimir Müller from the Czech Academy of Science as the main speaker. He will deliver two one-hour lectures on *Orbits of Operators*. As usual there will be contributed talks by the participants.

The meeting will be held in the Department of Pure Mathematics at Queen's University Belfast on Saturday 19 November. It is organised by Drs Martin Mathieu and Ivan Todorov and Professor Anthony Wickstead. It is supported by an LMS conference grant and post-graduate students studying at a UK or RoI university can be supported. Full details and further updates can be found at www.qub.ac.uk/bfad or email m.m@qub.ac.uk.

SCOTTISH ALGEBRA DAY

Scottish Algebra Day will be held at the University of Edinburgh on Friday 6 May. The speakers are:

- John Truss (Leeds) *On representing words in automorphism groups*
- Patrick Dehornoy (Caen) *The geometry monoid of an algebraic law*
- Dmitriy Rumynin (Warwick) *Localization theorems in modern algebra*
- Jan Okninski (Warsaw) *Algebras defined by homogeneous semigroup relations*

Scottish Algebra Day is supported by an LMS conference grant and a Glasgow Mathematical Journal Trust Fund grant. For more information, including more details of the programme and

venue for the meeting, see www.maths.gla.ac.uk/~ig/sad2005.html or contact the organisers Nick Gilbert (N.D.Gilbert@ma.hw.ac.uk), Iain Gordon (ig@maths.gla.ac.uk), James Mitchell (jamesm@mcs.st-and.ac.uk).

ERGODIC THEORY MEETING

A one day Ergodic Theory Meeting will be held on Monday 16 May from 12.00 to 17.00 in the Department of Mathematics, University of Surrey. This is part of a series of collaborative meetings between Liverpool University, Manchester University, Queen Mary, Surrey University, and Warwick University, supported by a Scheme 3 grant from the London Mathematical Society. The invited speakers are:

- Xavier Bressaud (Marseilles) *Coupling and speed of decay of correlations*
- Mark Demers (Georgia Tech) *Markov extensions for some dynamical systems with holes*
- Bassam Fayad (Paris) *Toral translations and smooth ergodic theory*

Further details can be found on the webpage at www.maths.surrey.ac.uk/personal/st/l.Melbourne/Meetings/one_daydynamics.html or contact Henk Bruin (H.Bruin@surrey.ac.uk, 01483 689253) or Ian Melbourne (I.Melbourne@surrey.ac.uk, 01483 689643).

PURE AND APPLIED ALGEBRAIC TOPOLOGY

A conference on Pure and Applied Algebraic Topology will be held on the Isle of Skye from 21-25 June. The emphasis will be on the emerging role of algebraic topology in physics and finite group theory, but the scope of the conference is broad, welcoming any new work in algebraic topology. Invited speakers are:

- Alejandro Adem (Wisconsin)
- Greg Arone (Virginia)
- Nils Baas (Trondheim)
- Dave Benson (Georgia)
- Ralph Cohen (Stanford)

- Kathryn Hess (EPFL)
- Nitu Kitchloo (UC San Diego)
- Peter Kropholler (Glasgow)
- Andrey Lazarev (Bristol)
- Markus Linckelmann (Ohio State)

Several shorter talks will also be scheduled. Participants are invited to indicate when they register if they are willing to give a talk.

The conference will take place at Sabhal Mór Ostaig College, near Sleat, on the Isle of Skye. The cost to register is £120, or £60 for postgraduate students. Accommodation at the venue is currently fully booked; for information on alternative accommodation and other costs please visit the conference website (details below). Further information and registration forms are available on-line at www.abdn.ac.uk/~wpe006/conference/index.php.

A tentative closing date for registration was given as 15 April, but late registration is possible. To do so, contact one of the members of the organizing committee: John Hubbuck (Aberdeen), Nick Kuhn (Virginia), Ran Levi (Aberdeen), Assaf Libman (Aberdeen), Stephen Theriault (Aberdeen), Michael Weiss (Aberdeen). The conference is supported by an LMS conference grant.

FOURIER ANALYSIS AND HYPERBOLIC PDES

The Fourier Analysis and Hyperbolic PDEs conference will be held at Imperial College London from 10-12 May. The topics are:

- Symbolic and other parametric constructions
- Energy estimates in various function spaces
- Strichartz estimates and long-term behaviour of solutions to the Cauchy problem.

The main speakers include:

- S. Alinhac (Paris)
- N. Bournaveas (Edinburgh)
- M. Cicognani (Bologna)
- V. Georgiev (Pisa)
- I. Kamotski (Bath)
- E. Radkevich (Moscow)

- M. Reissig (Freiberg)
- L. Rodino (Torino)
- L. Volevich (Moscow)
- J. Wirth (Freiberg)

For further information contact the organisers: Michael Ruzhansky (ruz@imperial.ac.uk) or Ingo Witt, London (ifw@imperial.ac.uk) of the Department of Mathematics, Imperial College London or visit the website www.ma.imperial.ac.uk/~ifw/fourier_analysis.html. This conference is supported by an LMS conference grant.

BOUNDARY ELEMENTS WORKSHOP

The Brunel Institute of Computational Mathematics at Brunel University is hosting a workshop on Boundary Elements from 16-17 June. This event is intended as a forum to discuss recent developments and forge relationships. Main topics are Numerical Analysis of Boundary Element Methods, Coupling with Finite Elements, A Posteriori Error Control, Adaptive Methods, p- and hp-Version, Fast Solvers, and Applications. Confirmed invited speakers are:

- C. Carstensen (HU-Berlin, Germany)
- S. Chandler-Wilde (Reading)
- P. Davis (Strathclyde)
- D. Duncan (Heriot-Watt)
- G.N. Gatica (Concepcion, Chile)
- M. Maischak (Hannover, Germany)
- S. Meddahi (Oviedo, Spain)
- D. Praetorius (TU-Vienna, Austria)
- F.-J. Sayas (Zaragoza, Spain)
- S. Shaw (Brunel)
- E.P. Stephan (Hannover, Germany)
- L. Wrobel (Brunel).

This workshop is open for other participants. Anyone intending to give a talk should submit an abstract before 6 May. In particular, PhD students are encouraged to participate. There are limited funds to support UK-based graduate students.

For more information on registration, accommodation and financial aid see <http://people.brunel.ac.uk/~mastsaf/workshop2005> or contact Miss Carolyn Sellers, BICOM, Department of Mathematical Sciences, Brunel University, Uxbridge, Middlesex UB8 3PH, email: Carolyn.Sellers@brunel.ac.uk. The Workshop is supported by an LMS conference grant.



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University
of Southampton School of Mathematics

The University of Southampton invites applications for four appointments in the fields of Applied Mathematics and Pure Mathematics. The University is in the top ten of research-led universities in the UK for both research quality and research income. In the 2001 Research Assessment Exercise, all four units of assessment within the school were rated 5.

Lectureships in Pure Mathematics Ref. No. 04F0674

Applications are invited for two Lectureships in Pure Mathematics starting in October 2005. The Pure Mathematics Group has an international reputation in Geometric Group Theory and in K-theory. We seek applicants with an outstanding record of research in an area which will enhance our strengths. Preference will be given to applicants specialising in algebra, geometry or topology.

Informal enquiries concerning this post are welcome and may be made to Professor G A Jones, email: G.A.Jones@maths.soton.ac.uk
Tel. +44 (0)23 80593654, Fax. +44(0)23 80595147

Lectureships in Applied Mathematics Ref. No. 04F0675

Applications are invited for two Lectureships in Applied Mathematics starting in October 2005. The Applied Mathematics group has an international reputation in General Relativity, Optics and Biomathematics. We seek applicants with an outstanding record of research in an area which will enhance the strengths of the group. Preference may be given to someone with a strong track record of research in General Relativity or the mathematics of optical phenomena and devices.

Informal enquiries concerning this post are welcome and may be made to Professor J A Vickers, email: J.A.Vickers@maths.soton.ac.uk
Tel. +44 (0)23 80595113, Fax. +44(0)23 80595147

Salary will be in the range of £24,161 to £28,009 per annum (Level 4), although an appointment may be made at a higher level for a suitably qualified candidate. Closing date for applications for these positions is **31 May 2005**.

Application forms and further particulars for these posts are available from www.maths.soton.ac.uk or from the Human Resources Department, University of Southampton, Highfield, Southampton, SO17 1BJ UK, Tel: +44 (0)23 8059 2750, email: recruit@soton.ac.uk or minicom 023 8059 5595.

Please quote the appropriate reference number.

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)

Every moment brings a treasure:

Random matrix theory and the Riemann zeta function

11.40 Professor Marian Scott (Glasgow)

What can a career in Statistics offer?

12.20 Dr Helen Joyce (Science Communicator)

Communicating mathematics

12.45–13.45 Lunch

13.45–15.45 Afternoon Session

Postgraduate speakers

15.45–16.00 Tea

16.00–16.30 Mentoring (Professor Ursula Martin, Dr Cathy Hobbs)

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 students and £5 for all others – payable on the day. There are limited funds available to help with travel costs.

Followed by an early supper for those able to stay.

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.

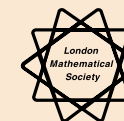
EPSRC

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.

THE INSTITUTE OF MATHEMATICS AND ITS APPLICATIONS



FORTHCOMING CONFERENCES

Vision, Video and Graphics II	Heriot Watt University, 7-8 July 2005
Recent Advances in Non-Linear Mechanics	Aberdeen University, 30 August –1 September 2005
Mathematics of Surfaces XI	Loughborough University, 5-7 September 2005
Mathematics in Transport IV	University College London, 7-9 September 2005
Schools and Industry	Manchester University, October 2005
Cryptography and Coding X	Royal Agricultural College, Cirencester, 19-21 December 2005
Mathematics of Complexity	Warwick University, 5-7 July, 2006

CO-SPONSORED CONFERENCES

12th International Conference on the Teaching of Mathematical Modelling and Applications (ICTMA 12)	City University, London, 10-14 July 2005
The 7th Hellenic European Research on Computer Mathematics and Its Applications Conference (HERCMA 2005)	Athens, Greece 22-24 September 2005

For further details of all these conferences visit our website on www.ima.org.uk or contact: Lucy Nye, Conference Officer, The Institute of Mathematics and its Applications, Catherine Richards House, 16 Nelson Street, Southend-on-Sea, Essex SS1 1EF.

Direct line: (01702) 356104 Switchboard: (01702) 354020
Email: conferences@ima.org.uk Fax: (01702) 354111

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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).

MAY 2005

- 6** Scottish Algebra Day, Edinburgh University (337)
- 10-12** Fourier Analysis & Hyperbolic PDEs Conference, Imperial College London (337)
- 11** Geometric Approaches to Fluids & Liquid Crystals Meeting, Southampton University (337)
- 12-14** Groups in Galway Conference, National University of Ireland, Galway (336)
- 13-14** Algebra & Representation Theory in the North Meeting, York University (336)
- 16** Ergodic Theory Meeting, Surrey University (337)
- 18** LMS Midlands Regional Meeting, Birmingham University (337)
- 19** Maths Millennium Project Event, Cambridge University (337)
- 19** Royal Institution Maths Event, London (337)
- 19-21** Fusion Systems, Representation Theory and Groups LMS Workshop, Birmingham University
- 20** Edinburgh Mathematical Society Meeting, St Andrews University (330)
- 23-28** Algebras & Representation Theory Conference, Beijing, China (336)
- 25** Women in Mathematics Day, De Morgan House, London (337)
- 25** Combinatorics Colloquium, Reading University (337)
- 29-30** Homology, Geometry & Combinatorics of Representations Workshop, Beijing, China (336)
- 29-4 Jun** Topics on Stochastic Processes LMS/EPSC 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 (337)
- 16-17** Boundary Elements Workshop, Brunel University (337)
- 17** LMS Meeting, London (337)
- 21-25** Pure & Applied Algebraic Topology Conference, Isle of Skye (337)
- 27-1 Jul** Algebraic K- and L-Theory of Infinite Groups Meeting, ICMS, Edinburgh (335)

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/EPSC Short Course, Reading University (337)
- 8** LMS Northern Regional Meeting, York
- 7-9** International Colloquium, Monst-Hainaut University, Belgium
- 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/EPSC Short Course, University of Wales, Swansea (337)
- 11-15** Inverse Problems in Engineering Conference: Theory & Practice, Cambridge University (320)
- 11-15** Model Theory, Algebraic & Analytic Geometry Euro Conference, INI, Cambridge (332)
- 11-22** Equidistribution in Number Theory NATO ASI Summer School, Montréal, Canada (334)
- 17-14 Aug** Atlantic Association for Research in the Mathematical Sciences Summer School, Dalhousie University, Canada (333)

MAXWELL HERMAN ALEXANDER NEWMAN
DE MORGAN MEDALLIST
1962



Professor Newman received the De Morgan Medal on 15 November 1962. Extract from the President's address: 'Newman's early work on combinatory topology has exercised a decisive influence on the development of the subject. At a time when the study of manifolds was based on a number of different combinatory concepts, he estab-

lished a simple combinatory system of simplicial complexes with an equivalence relation based on elementary moves. Much of the rest of his work on geometric topology has been concerned with manifolds and with extensions to n dimensions of Schoenflies' Theorem about the separation of a 2-sphere by a 1-sphere.'