THE LONDON MATHEMATICAL SOCIETY

NEWSLETTER

No. 335 March 2005

Forthcoming Society Meetings

2005

Wednesday 18 May
Birmingham
Midlands Regional Meeting
[*page 9*]

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

Friday 8 July
York
Northern Regional Meeting

Monday 5 September
Bristol
South West & South Wales Regional Meeting

Friday 18 November
London
Annual General Meeting

COUNCIL DIARY

21 January 2005

Members will be aware of the Society's major activities such as publishing journals, providing grants and supporting meetings. However, a recurring theme of the January Council meeting was the enormous effort that Council and Society members and staff devote to the well-being of the mathematics community in less obvious ways, such as presenting evidence to public bodies, informing and influencing politicians and civil servants, and responding to consultations.

The Society is making the most of the current high profile of mathematics in the political arena following the Roberts and Smith reports. Hopefully the rapport established with Charles Clarke will continue with Ruth Kelly, his sudden replacement as Secretary of State for Education and Skills. Two days before the Council meeting there was a debate in the House of Lords on Teaching of Mathematics, for which Council members had provided input; see the weblink* for a transcript of the interesting discussion. The Society has compiled a written response to the Select Committee on Science and Technology's Inquiry into Strategic Science Provision and will be presenting oral evidence in early March. The Inquiry concerns safeguarding the level of science teaching and research in universities following the recent closure of several departments. The Society's response emphasises the special needs of mathematics, including its central importance to science and the need for mathematics provision in all regions and all types of institutions. The response highlights the need for adequate government resourcing of mathematics research and teaching, including high-quality school-teaching, and the unfortunate effects of current funding formulae.

As partners in the Council for the Mathematical Sciences (CMS), the Society was strongly represented at a meeting with the Chief Executive and members of the Mathematics Programme of EPSRC to discuss the action plan produced by EPSRC in response to the International Review of UK Mathematics. Whilst the Review had been generally very positive, it was felt that the EPSRC response had addressed the concerns of the Review within the broad science framework rather than concentrating on the special nature of mathe-

* www.publications.parliament.uk/pa/ld199900/ldhansrd/pdvn/lds05/text/50119-04.htm

matics. The CMS bodies are continuing to press for two main priorities to address the weaknesses identified by the Review: a 4-year norm for PhD mathematics training with no reduction in numbers, and introduction of Fellowships of relatively short duration to provide quality research time to many more mathematicians. Council and CMS believe the case for these is extremely strong, and will continue to argue with the various agencies for the extra resources that are undoubtedly required.

Council is responsible for appropriate investment of the Society's assets, and the Treasurer reported that management of the Society's investments had been transferred to Morgan Stanley with a real-terms 4% annual income target. A major asset is, of course, our Headquarters, De Morgan House, and plans were displayed for improvements to the lower ground floor. Relatively modest alterations, including an enlarged Hardy Room, will provide accommodation much better suited to small meetings, as well as providing disabled access.

A novel project coming to fruition is the *Presidents' Book* which will be launched at the Society meeting on 17 June 2005. The book will include photographs and short biographies of all LMS Presidents, along with a wealth of other information on the Society's history. This hardback volume will be available at £19, with a 20% discount for LMS members.

Kenneth Falconer

RAE 2008 SUB-PANEL CHAIRS ANNOUNCED

The chairs of the 67 sub-panels for Research Assessment Exercise (RAE) 2008 were announced by the four UK higher education bodies in January. Within the Mathematics Panel (Panel F) Professor Ken Brown of the University of Glasgow has been appointed chair of Pure Mathematics and Professor Tim Pedley of the University of Cambridge has been appointed chair of Applied Mathematics. Professor Bernard Silverman of the University of Oxford is the chair of Statistics & Operational Research and Professor Keith Van Rijsbergen, also of the University of Glasgow, is the chair of Computer Science & Informatics. The LMS welcomes these appointments.

LMS Newsletter

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The sub-panels are part of a new two-tier panel structure for the 2008 RAE and are responsible for the core work of assessing submissions and making recommendations to main panels. There are 15 main panels which together cover the full range of research in the related subject areas. Professor Nigel Hitchin of the University of Oxford was appointed Chair of the Mathematics Panel (Panel F) for RAE 2008 last September.

LMS CONGRATULATES SUCCESSFUL CETL BIDS

The LMS congratulates the four university mathematics and statistics departments that were announced as 'Centres for Excellence in Teaching and Learning' by the Higher Education Funding Council for England (HEFCE) in January. HEFCE awarded departments at Lancaster, Loughborough, Coventry and The Open University £4.5M each for bids to continue and extend their excellent teaching practice.

Lancaster University will use its award to fund the TEMPUS Centre for teaching excellence and mentoring of postgraduate users of statistics. The centre has been created to enhance postgraduate teaching in statistics, both to statistics specialists and postgraduates in other disciplines. It aims to become a regional, national and international centre of excellence in the postgraduate training of statisticians, producing highly employable students from a variety of disciplines. TEMPUS plans to improve upon its existing excellence by improving facilities and increasing time available for course and professional development.

Professor Amanda Chetwynd, director of the Centre for Excellence at Lancaster said 'We are delighted to have the postgraduate training provided by the Lancaster Statistics group recognised. The group already has a reputation for world class statistical research (RAE 6*) at the interface between theory and applications and this funding will allow us to develop a substantial training programme to complement this'.

Loughborough and Coventry Universities have together been awarded for their development of high-quality mathematics and statistics support services, offered to all students regardless of their programme of study. They have independently and collaboratively worked to provide local and national mathematics support in academia. They plan to build on this achievement by creating a student-focused environment which responds to student needs and establishing innovative learning approaches such as e-learning.

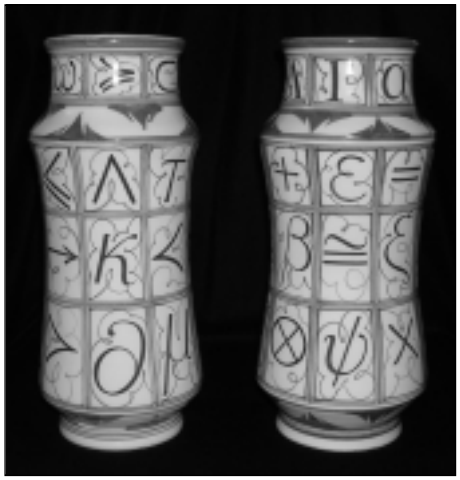
Dr Tony Croft, director of the Centre for Excellence at Loughborough, said 'Students in a very wide range of disciplines are increasingly called upon to understand and use mathematical and statistical techniques. Consequently the enhanced provision offered through the Centre for Excellence will impact upon many large and diverse groups. In addition, a key focus of the Centre will be to support students with special needs arising because of disabilities such as blindness or learning difficulties like dyslexia. Students in many other universities will also benefit from this investment as there are plans to share experience and resources beyond the two principal institutions.'

The Open University's Institute for the Distance Teaching of Mathematics, Science and Technology has been recognised for the excellent practice in distance teaching and learning demonstrated by staff in the Mathematics & Computing, Science and Technology faculties. The Institute will use its award to provide new learning materials, improved support and enhanced use of new technologies such as e-learning for the 85,000 undergraduates and 7,000 postgraduates currently studying mathematics, science and technology courses at The Open University.

The Centres for Excellence in Teaching and Learning (CETL) initiative has awarded over £300 million to a total of 74 successful bids, to reward excellent teaching practice, and to further invest in such practice for the benefit of students, teachers and institutions. The initiative is part of HEFCE's strategy to ensure that all higher education students benefit from a high-quality learning experience, which will distribute funding of £3,825 million in 2004-2005 as recurrent grants to support learning and teaching in universities and colleges. For further information on the CETL awards, visit www.hefce.ac.uk/learning/TInits/ cetl/.

30 YEARS EDITING PROCEEDINGS

Some of your readers might be interested to see this photograph of two albarellos decorated with a total of 62 Greek letters and mathematical symbols. They were made by the Wiltshire potter Laurence McGowan (www.laurencemcgowan.co.uk) and were a gift to me from the LMS to celebrate the fact that I have been Executive Editor of the *Proceedings* for thirty years. The vases are approximately 27cm tall and, appropriately but coincidentally, the decorations are painted in different shades of green.



I should like to thank the Council, the Executive Secretary Peter Cooper, and, in particular, the Publisher Susan Hezlet, for marking the anniversary in this generous way. I was very flattered when Susan told me that they wished to buy me a present and asked me what I would like. I felt that no special recognition was necessary as I consider myself fortunate to have been able to work for so long in a job that I find enjoyable and convenient. However, it is lovely to be appreciated. The albarellos will give me a lot of pleasure, especially when, in a few years' time, I lay down my red and blue proof-correcting pens and cease to be in regular contact with $\in$, ∞ and the rest.

Alice Sharp,Executive Editor
Proc. London Math. Soc.

EPSRC WORKSHOP SUMMARY

Algorithms Research at the Mathematics/Computer Science Interface

The International Reviews of Computer Science and Mathematical Sciences observed that the UK did not have a sufficient volume of activity in algorithms research at the Computer Science/Mathematical Sciences interface. A one day workshop was held in November 2004 at Leeds University to discuss the options available to address these concerns. The day-long event consisted of a series of short talks and breakout sessions to probe the key problems in the area, with special attention paid to issues of Research, Training and Knowledge Transfer.

The report can be accessed through the EPSRC website www.epsrc.ac.uk. The document contains a summary of the event along with recommendations to address key issues. Feedback from interested colleagues is welcomed.

EUROPEAN MATHEMATICAL SOCIETY

The President has received a letter from Sir John Kingman, the President of the European Mathematical Society. Sir John sends New Year greetings to all the national mathematical societies which are corporate members of the EMS; his letter continues as follows:

It will certainly be an active year for the EMS, and by the time our Council meets in Torino in July 2006 there will be plenty to report. The Executive Committee meets next on 16 April 2005, and if there are any issues you would like us to address, please let me know.

We shall spend some time discussing the evolving scene in the European Union. Will there be a new European Research Council, and if so will it be structured to the advantage of mathematics? Alternatively, if the decision is against a new body, how will future Framework Programmes be developed to take account of the pressures from the scientific community? The EMS, under the leadership of Luc Lemaire, has been taking an active stance with the Commission, and with other bodies such as the European Science Foundation, but it is all too easy for mathematics to be taken for granted.

In the wake of the success of last year's European Congress in Stockholm, the Executive Committee will be reviewing arrangements for the ICM in Madrid in 2006, and the next ECM in Amsterdam in 2008. I hope that you can draw the attention of your members to both of these important congresses, which can do much to bring European mathematicians into closer contact. The EMS Publishing House, run by Thomas Hintermann, has now produced its first books and journals, and will make an increasing impact on the world of mathematical publication. We see the Publishing House as being complementary to the publishing activities of national societies, and will seek to avoid any damaging competition with them, but it is important that we provide an alternative to the commercial publishers who have to be more mindful of their shareholders than of the health of mathematics.

We remain concerned about the status of applied mathematics, both of the traditional sort and in relation to newer applications. The EMS, in its scientific meetings and summer schools, has given a high priority to applications, but we need to sustain the momentum of that aspect of the Society's activities. It was a great joy at the Council last year to welcome four national statistical societies to membership, and that is an important area of the application of mathematics which should be nurtured at the European level. All suggestions will be gratefully received.

When Council meets next year, it will have to elect a new President to take over from me in January 2007. I am grateful to those who responded to my invitation, at the Uppsala Council, to send suggestions of possible candidates, and that invitation remains open. However, the Executive Committee will in April decide who it will nominate, and it would be helpful to have your ideas during the next month or so. We shall also be looking for a new Secretary to succeed Helge Holden, and any ideas would be welcome.

I look forward to hearing from you about these or any other matters, and I send you and your members my very best wishes.

NEWS FROM IMU

The Executive Committee of IMU sent five postal ballots to its Adhering Organisations for voting. All five postal ballots were passed by a majority vote. Brazil and Spain have changed from Group III to Group IV as of 1 January 2005. Indonesia and Pakistan have been admitted to the union in Group I as of 1 January 2005, and Victor Vassiliev is officially a member of the EC through December 2006.

East Asia Regional Conference on Mathematics Education (EARCOME) is part of a series of international conferences, usually designated as ICMI regional conferences, hosted in East Asian countries. The first and second EARCOME were held in Korea (1998) and Singapore (2002). The Third East Asia Regional Conference on Mathematics Education (EARCOME 3) will be held in Shanghai, Nanjing and Hangzhou in China on 5 – 12 August 2005. See http://euler.math.ecnu.edu.cn/earcome3/accouncements.htm.

ICM 2006

A session on Mathematical Software will be organised to attract a broad audience – researchers, students, teachers etc. – with a special interest in software topics. The general aim is to present mathematical software systems and their applications, including implementations of specially designed algorithms. The topics will fit the description of the scientific sections of the Congress (see www.icm2006.org).

Submission of abstracts will start on 1 January 2006 with a deadline of **30 March 2006**. The Local Program Committee will notify authors of acceptance/rejection of their contribution before 30 May 2006. Further information, as well as the precise interactions on how to prepare a contribution, will be posted at the home page of the ICM by the end of 2005. Each registered participant will have the opportunity to present a unique contribution in the form of a short communication, a poster or mathematical software.

Preliminary list of accepted satellite conferences:

- *XV Fall Workshop on Geometry and Physics*, Tenerife, 11 – 15 September
- *Geometry Conference in Honour of N. Hitchin*, Madrid, 4 – 9 September
- *Singularities and Differential Equations Conference*, Tordesillas (Valladolid), 4 – 8 September
- *VII Workshop on Symplectic and Contact Topology, GESTA-2006*, Madrid, 16 – 19 August
- *International Seminar on Applied Geometry in Andalucia*, Granada, 5 – 9 September
- *Trends and Topics in The Future Of Combinatorial and Computational Geometry*, Alcalá de Henares (Madrid), 31 August – 5 September
- *Geometry and Topology of Low Dimensional Manifolds*, Burgo de Osma (Soria), 31 August – 2 September.

academici

Mathematicians around the world will soon have the opportunity to network with their peers and across disciplines with academic colleagues. The UK start-up company *academici.com* is providing a revolutionary, secure platform which is not simply a mega-website, but operates on a number of levels, for example, as a social networking tool, accurately ensuring you are connected with people you choose to make contact with.

Academici can, for example, operate as a search data base for fellow mathematicians working in similar areas, thereby establishing contacts which transcend national boundaries. Professor Dr Vinzent, one of the founders of *academici,* believes that such software 'can function as a form of intranet for local or national societies by linking all members of the society with one another on an interactive platform'.

The second level on which *academici* functions is as a discussion base. Specialist forums are moderated by peer-reviewed experts and can be open to other users or closed – both in order to maintain academic rigour and prevent unwanted visitors. This means that moderators play an important role in structuring the forums. Only members of the forum – vetted by moderators – may contribute to the

discussion. Forums are large categories below academic disciplines themselves, in this case, *Mathematics*, and are in turn sub-divided into boards. Boards could be anything ranging from a specific branch of mathematics, for example, *mathematical biology*, to a special area of study, for example *geometric analysis*.

A third level on which *academici* functions is as a central reservation for publications (with links to relevant libraries and society web pages), grants, awards, prizes, jobs and links with and between international mathematical societies. For example one board could be named *grants* within which societies around the world can advertise their own grants and coming events and place links to their own web sites. Equally, this could apply to jobs and international links. In this way *academici* can bring to the attention of a potential global audience the activities of regional universities, societies and clubs.

Finally, *academici* offers the unprecedented opportunity for cross-fertilisation between disciplines. All three levels discussed above could be contained within the field of Mathematics. However, the added value of the virtual academy is that members will be able to search for academics in other, cognizant disciplines or simply inform themselves of what is going on in disciplines other than their own. The possibilities of synergies and cross-disciplinary collaboration are endless.

If anyone would like to discuss *academici* or would like a demonstration of the software used, please contact me at: J.Grix@bham.ac.uk.

Jonathan Grix
University of Birmingham

SIR EDWARD MAITLAND WRIGHT

Sir Edward Wright, who has died eleven days short of his 99th birthday, will be remembered by mathematicians for many things. First and foremost, he was Wright of Hardy and Wright – the classic textbook *An Introduction to the Theory of Numbers*, which from its first edition in 1938 to its fifth in 1979 has been, and remains today, an essential working tool of number theorists and mathematicians generally. Wright also wrote some 140 papers, on number theory, on asymptotics, and on the enumerative combinatorics of graphs, including random graphs.

Wright was self-taught to a remarkable degree, and also conspicuously precocious. He supported himself as a teacher (initially of French) from the age of 14, fell in love with mathematics, took a first-class honours degree in mathematics as an external candidate at the University of London, and followed this with undergraduate studies at Oxford. Here he became a research student of Hardy, and met his future wife Phyllis. He became Professor of Mathematics – unusually early – at Aberdeen in 1936, a post he held, apart from secondment to war work, till 1962.

Wright's second career began on his appointment as Principal and Vice-Chancellor of Aberdeen from 1962 to his retirement in 1976. He was knighted in 1977. He led the university with distinction through the hectic expansion period of the sixties, but retired before the cuts of the eighties. Wright thus shared with a number of other mathematical knights – Sir Harry Pitt, Sir William Hodge, Sir Michael Atiyah, Sir Christopher Zeeman and Sir John Kingman among others – a career beginning with distinction in mathematics and leading on to distinction in academic administration and leadership.

Wright will be remembered also by the LMS membership as having been for many years its senior member (elected 12 December 1929). Sir Edward lost his wife Phyllis in 1987; his son John (Professor of Mathematics at the University of Reading) survives him.

N.H. Bingham

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 the 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 COMMITTES 2005

COUNCIL COMMITTEES

Finance & General Purposes Committee: President (Chair), Vice-Presidents, General Secretary, Treasurer, Programme Secretary, Publications Secretary, Education Secretary.
Investment Subcommittee: Treasurer (Chair), Members of Finance & General Purposes Committee, M. Davis, S. Howison, L. Hughston, M. Penington, 1 vacancy.
Programme Committee: Programme Secretary (Chair), President, H.G. Dales, P. Davies, A.M. Etheridge, K.J. Falconer, N.C. Snaith.
Meetings Committee: Members of Programme Committee, J. Marklof, J. Chuang, M. Prest, T. Voronov, C. Parker.
Personnel and Office Management Committee: I.D. Abrahams (Chair), Publications Secretary, P. Davies, J.F.C. Kingman.
2005 Prizes Committee: President (Chair), I.D. Abrahams, F.P. Kelly, M.A.H. MacCallum, A.J. Macintyre, D. Preiss, D.A. Rand, D.M. Sloan.
Publications Committee: Publications Secretary (Convenor), M.R. Bridson (Vice-President), F.E. Burstall, R.D. Camina, J. Greenlees, F.C. Kirwan, Publisher.
Editorial Committee: Publications Secretary (Convenor), Joint Editors of the *Bulletin*, *Journal*, *Proceedings* and *JCM*, Book Reviews Editor, Publisher.
Research Meetings Committee: A.J. Scholl (Chair), Vice-President (M.R. Bridson) I.D. Abrahams, M. Ainsworth, J. Bolton (Durham representative), A.M. Etheridge, D.J. Needham, G.R. Robinson, A. Sudbery, R. Woolley (EPSRC observer).
Education Committee: Education Secretary (Chair), A.G. Chetwynd (Vice-President), C.J. Budd, J.F.C. Kingman, N. Mackay, P.J. Rippon, J.C. Robson, E. Winstanley.
Computer Science Committee: R.M. Thomas (Chair), N.L. Biggs (Council), R.J. Gibbens, L. Goldberg, R. Leese, Vacancy (IMA) , T. Melham, N. Smart, M. Stannett (BACS, FACS), J.R. Whiteman (IMA).
Women in Mathematics Committee: F.A. Rogers (Chair), H. Byrne (IMA), R.D. Camina, P.J. Davies, C. Goldie, C.A. Hobbs, M. Luczak, G. Stallard, K. Wendland.
Library Committee: Librarian (Chair), J. Barrow-Green, N.H. Bingham, M. Reid.
Nominating Committee: E.G. Rees (Chair), R.A. Bailey, K.A. Brown, H.G. Dales (Council), C.A. Hobbs, D. Rand, D.M. Sloan, S.E. Rees.
International Affairs Committee: Programme Secretary (Chair), Publications Secretary, J. Ball (IMU), S.J. Hogan (IMA), J.F.C. Kingman, P.J. Green (RSS), S.E. Saunders (ICMI), M.J. Taylor, S.T. Tsou, President of the Edinburgh Mathematical Society.

AD HOC COUNCIL COMMITTEES

CICIAM: R.J. Knops (Convenor), J. Carr, A.B. Olde Daalhuis, L. Thomas.
Computer Systems Executive Secretary, Publications Secretary, F.E. Burstall, P. Kemp, S.A. Linton, 1 vacancy.
LMS–IMA Joint Working Group: President (Chair), General Secretary, Executive Secretary, ad hoc member.
Mathematics Promotion Unit Steering Group: A.G. Chetwynd (Vice-President, Chair), General Secretary, Education Secretary, Executive Secretary.
Newsletter Editorial Board: D.R.J. Chillingworth (General Editor), M. du Sautoy, S.A. Huggett, The Administrator, vacancies.
Diarist: K.J. Falconer
Obituaries Editor: A.R. Pears.
Scrutineers (2004): D.J. Collins, P.T. Saunders.

LMS PROGRAMME AND CONFERENCE FUND

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

Date/Venue	Title	Organiser/email
21-22 April 2005 Isaac Newton Institute, Cambridge	Turbulence, Twist and Treacle: A meeting in celebration of the 70th birthday of H.K. Moffatt	M.R.E. Proctor mrep@damtp.cam.ac.uk
25 May 2005 Reading	Reading One-Day Combinatorics Colloquium	A.J.W. Hilton a.j.w.hilton@reading.ac.uk
10-15 July 2005 Durham	20th British Combinatorial Conference	M.J. Grannell m.j.grannell@open.ac.uk
12-14 September 2005 Bristol	20th British Topology Meeting	A.Y. Lazarev a.lazarev@bristol.ac.uk
19-23 September 2005 Surrey	Theoretical Aspects of Pattern Formation (INI Satellite Meeting)	A. Rucklidge a.m.rucklidge@leeds.ac.uk
10-13 April 2006 Newcastle	British Mathematical Colloquium 2006	N.J. Young n.j.young@ncl.ac.uk Z.A. Lykova z.a.lykova@ncl.ac.uk

CELLULAR AND DIAGRAM ALGEBRAS IN MATHEMATICS AND PHYSICS

A workshop on Cellular and Diagram Algebras in Mathematics and Physics will be held at the University of Oxford from 3-9 April.
The speakers are:
- Georgia Benkart (Wisconsin)
- Philippe DiFrancesco (Saclay)
- Karin Erdmann (Oxford)
- Richard M. Green (Boulder)
- Phil Hanlon (Michigan)
- Vaughan Jones (Berkeley)
- Sofia Lambropolou (Athens)
- Bernard Leclerc (Caen)
- Gus Lehrer (Sydney)
- Paul Martin (London)
- Arun Ram (Wisconsin)
- Anatoly Vershik (St Petersburg)
- Changchang Xi (Beijing)

The organizers are: Karin Erdmann, Steffen Koenig, Paul Martin and Changchang Xi. For further information contact Steffen Koenig (sck5@mcs.le.ac.uk) or visit the website www.mcs.le.ac.uk/research/pure/arepa/workshop2005.html.

ALGEBRAIC K- AND L-THEORY OF INFINITE GROUPS

An *Algebraic K- and L-Theory of Infinite Groups* meeting will be held at ICMS, Edinburgh, from 27 June – 1 July. The oganisers are Andrew Ranicki and Ian Hambleton. Main speakers are: M. Bridson, J.F. Davis, F.T. Farrell, W. Lueck, E.K. Pedersen, F. Quinn. The programme will start on the morning of Monday 27 June and finish on the afternoon of Friday 1 July. Attendance is by invitation only, as space is limited. Anyone interested in an invitation should contact Andrew Ranicki (a.ranicki@ed.ac.uk). Some financial support is available for certain categories of participant – see the website for details (www.ma.hw.ac.uk/icms/meetings/2005/klig). The meeting is supported by the London Mathematical Society and by the Edinburgh node of the EU RTN Network HPRN-CT-2002-00287.

MATHEMATICS FOR NETWORKS

The EPSRC NETCA network will be holding a workshop and discussion meeting on Mathematics for Networks on Wednesday 23 March at Queen Mary University of London.

The purpose will be to introduce some of the mathematical challenges arising in the design of future computer networks, and stimulate discussion as to directions for future research, especially in the light of the recent DTI/Smith Institute report on mathematics for industry. Talks will range from the complexity of information transmission to the statistics of large-scale networks. Speakers will include:

- Sverrir Olafsson (British Telecom)
- Timothy Griffin (Intel/University of Cambridge)
- Jonathan Pitts (QMUL)
- Raoul Mondragon (QMUL)
- Soren Riis (QMUL)

Discrete and continuous mathematics, logic and statistics underpin every aspect of the design and development of fast, reliable, secure communication networks. For example, random graph theory is used to understand network connectivity, dynamical systems and statistical analysis to model network traffic flow, advanced logic to model network protocols, and Bayesian methods to identify suspicious traffic patterns. Future developments in technology, for example programmable networks of thousands of resource-constrained mobile devices that sense and compute locally, and communicate wirelessly, bring enormous increases in complexity. This places increasing demand on the mathematics needed to understand, model and predict behaviour and ensure performance, dependability, security and availability of resources such as data, bandwidth and power when and where they are needed. In this workshop and ensuing discussion we hope to identify some priorities for future research.

The workshop lasts from 2 pm - 5 pm, followed by a reception in Room CS/446 at Queen Mary University of London, Mile End Road, London E1 4NS. Registration is not necessary. For directions and further details see www.dcs.qmul.ac.uk or contact Sue White (suew@dcs.qmul.ac.uk).

PROBLEMS AND PERSPECTIVES

A Problems and Perspectives Symposium will be held the Université Cadi Ayad, Marrakech from 4 – 8 July. The goal of the symposium is to bring together mathematicians, physicists and engineers who are concerned with Finite Volume Techniques in a wider context. Examples from the broad field of applications are fluid dynamics, magnetohydrodynamics, structural analysis and nuclear physics. A closer look reveals many interesting phenomena and mathematical or numerical difficulties, such as true error analysis and adaptivity, modelling of multi-phase phenomena or fitting problems, stiff terms in convection/diffusion equations and sources. To overcome existing problems and to find solution methods for future applications requires many efforts and always new developments.

The main issue of the symposium is thus a critical look at the subject. New ideas may be presented, even if they have not yet shown full success. The demonstration of limits or drawbacks of methods is explicitly welcome. Contributions may put a main emphasis on theoretical as well as applied topics; particularly welcome are contributions concerned with unsolved or not yet fully solved problems and possible new attempts. The topics are:

- New schemes and methods
- Convergence and stability analysis
- Global error analysis
- Limits of methods
- Complex geometries and adaptivity
- Complexity, efficiency and large computations
- Distributive computation
- Multi-phase problems and fitting
- Combustion problems
- Climate and Ocean modelling, atmospheric pollution
- Kinetic equations
- Water waves
- Chaotic problems (turbulence, ignition, mixing)
- Stiff systems of equations
- Systems with source terms
- New fields of application
- Comparisons with experimental results

For further information contact: Département de Mathématiques et d'Informatique, Faculté des Sciences et Techniques Guéliz, B.P. 549, Marrakech, Maroc (tel: (212) 44 43 34 04, fax: (212) 44 43 31 70; email:fvca@fstg-marrakech.ac.ma; web: www.fstg-marrakech.ac.ma/fvca4).

SECANTS

The South of England Computational and Algorithmic Number Theory Seminars (SECANTS) will hold its 26th meeting on Saturday 5 March at Royal Holloway University of London. The speakers will be Lloyd Kilford (Oxford), Tom Ward (UEA) and one or more talks given by PhD students.

SECANTS is funded by an LMS Scheme 3 grant. For more details of the programme and venue, as well as general information about SECANTS, and how to be put on the email mailing list, see www.isg.rhul.ac.uk/~sdg/secants/index.html.

VISIT OF DR C. LAING

Dr Carlo Laing (Institute of Information & Mathematical Sciences, Massey University, New Zealand) will be visiting the UK from 15 March – 5 April and will give a series of talks on spiral waves in neural field equations. He will lecture at Bristol on 18 March (Professor Alan Champneys: a.r.champneys@bristol.ac.uk), Nottingham on 29 March (Dr Stephen Coombes: stephen.coombes@nottingham.ac.uk) and Manchester on 4 April (Professor Paul Glendinning: Paul.A.Glendinning@umist.ac.uk). His visit is supported by an LMS Scheme 2 grant. For more information contact Dr S. Coombes (email: stephen.coombes@nottingham.ac.uk tel: 0115 846 7836; fax: 0115 951 3837).

VISIT OF PROFESSOR P. ZALESSKII

Professor Pavel Zalesskii (University of Brasilia) is visiting the UK from 1 February to 16 March. Professor Zalesskii is a leading expert on profinite groups and is interested in both their group theoretic and number theoretic applications. During March he will lecture at Manchester (2-8 March) and Queen Mary University of London (9-16 March). His visit is supported by an LMS Scheme 2 grant. For more information contact Alec Mason (awm@maths.gla.ac.uk).

Topics on Stochastic Processes

LMS/EPSRC Short Course

Department of Mathematics, University of Wales Swansea
29 May–4 June 2005

Organiser: Professor Niels Jacob

For some years we have observed in many applications of stochastic processes a shift from models based on diffusions to models based on jump processes. This is partly due to a deeper understanding we now have of jump processes, and two of the lecture series on this course will address this theory. D. Stroock will discuss Markov processes from Ito's point of view (stochastic integration, stochastic differential equations) and W. Hoh will emphasise a more analytic approach by discussing generators. Both approaches are complementary but in many applications one still relies on diffusion models, and the lecture of J. Norris will treat recent progress in modelling coagulation problems – a hot topic in current research in probability theory.

The Course Lecturers are:

- D.W. Stroock (MIT) *Markov Processes from K. Ito's Perspective*
- W. Hoh (Bielefeld) *Pseudo-Differential Operators and Markov Processes*
- J. Norris (Cambridge) *Smoluchowski Coagulation*

For more information contact Niels Jacob (n.jacob@swansea.ac.uk). 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.

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/24_poster.html.

Numbers will be limited and those interested are advised to make an early application. The closing date for applications is **Friday 8 April 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.

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.

INTERNATIONAL COLLOQUIUM ON LEARNING MATHEMATICS

An international colloquium organized by the Centre de Recherche sur l'Enseignement des Mathématiques with the collaboration of the Institut de Mathématique de l'Université de Mons-Hainaut will be held from 7-9 July 2005 at the University of Mons-Hainaut, Belgium. The colloquium aims at confronting research results on the processes involved in learning mathematics. The emphasis will be on synthetic views, guidelines and a structured view of continuous learning throughout school time. Some possible further questions are:

- How do the notions learned at elementary school influence later learning?
- What are the respective roles in the learning process of procedures and concepts? What is the meaning of the expressions 'mental representation', 'mental object', 'mental image' and 'mental model'? How do these mental entities unfold and relate to each other?
- On which basis and following which criteria should one organize mathematical matters to induce a kind of natural learning? How to elaborate guidelines? How to determine necessary passage points?
- What are the respective roles of intuition and rigor? How could the requirements concerning both aspects be modulated?
- What are the respective roles of problem solving and theoretical structuring?
- What is the role of logic?
- What about past attempts to grasp mathematical learning globally, in terms of matters and methods? How did they deal with the above questions? How did these attempts affect school practice?

The members of the international scientific committee are: Bernard Hodgson (Université Laval, Québec, Canada), Jean-Pierre Kahane (Université de Paris Sud, Orsay, France), Nicolas Rouche (Université Catholique de Louvain, Louvain-la-Neuve, Belgium), Alan Schoenfeld (University of California, Berkeley, USA), David Tall (Warwick University, UK), Erich Wittmann (Universität Dortmund, Germany).

There will be seven plenary addresses and about twenty contributed lectures.

- Michèle Artigue *Learning mathematics at university level: what is offered by recent research in that area?*
- Jean-Pierre Kahane *Small problems coming from elsewhere*
- Nicolas Rouche *Mathematics from early childhood to adulthood: looking for guidelines*
- Alan Schoenfeld *Teachers as adult learners of mathematics*
- Anna Sierpinska *Sources of frustration in mathematics courses for adults*
- David Tall *A theory of mathematical growth through embodiment, symbolism and proof*
- Erich Wittmann *Mathematics as the science of patterns – a guideline for developing mathematics education from early childhood to adulthood*

On arrival, every participant will receive a CD-ROM with the abstracts or full (provisional) texts of the plenaries, communications and workshops. This CD-ROM will also contain the summaries or texts of communications that were submitted to the organizing committee, but that could not be incorporated in the programme. The proceedings of the colloquium will appear as a special issue of the *Annales de Didactique et des Sciences cognitives* published by the IREM of Strasbourg. The papers received for insertion in the proceedings will as usual be refereed.

Deadline for registration is **15 March 2005**. All information and the registration form are on the web www.profor.be/crem.

ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES

TRAINING COURSE: PATTERN FORMATION

(1 – 5 August 2005)

Supported by the European Commission, Sixth Framework Programme – Marie Curie Conferences and Training Courses – MSCF-CT-2004-516558

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

Organiser: Jonathan Dawes (Cambridge).

Theme of course: Pattern forming systems are widely found in nature and the laboratory: for example in sand dunes, lasers, flame fronts, surface catalysis and the visual cortex, as well as a whole host of fluid mechanical processes. The best known examples are thermal convection and traveling waves and spirals in chemical reactions. Experimental work and the theoretical study of nonlinear differential equations continue to reveal a wealth of unexpected phenomena in the behaviour of these nonlinear systems. This training course will introduce the appropriate mathematical techniques necessary to understand and describe the behaviour of mathematical models for such phenomena, and will illustrate their use (and successes and failures) in a variety of contexts.

Structure: There will be three series of lectures:

1. Pattern formation in spatially extended systems	Mike Cross (Caltech), Rebecca Hoyle (Surrey)
2. Symmetric bifurcation theory	Jonathan Dawes (Cambridge)
3. Numerical methods	Dwight Barkley (Warwick), Laurette Tuckerman (LIMSI-CNRS, Orsay)

Lectures will be complemented by problem-solving classes. In addition to the lecture courses three distinguished senior scientists will give Guest Lectures: Guenter Ahlers (UC Santa Barbara), Robert Ecke (Los Alamos) and Martin Golubitsky (Houston).

The course is aimed at research students and post-docs working in applied mathematics, particularly those working on nonlinear systems or continuum mechanics.

Location and cost: The Training Course 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 £440, includes accommodation, breakfast and dinner from dinner on Sunday 31 July to breakfast on Saturday 6 August, and lunch and refreshments during the days that lectures take place. Substantial financial support is available for EU research students and post doctoral researchers with fewer than ten years research experience. 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.

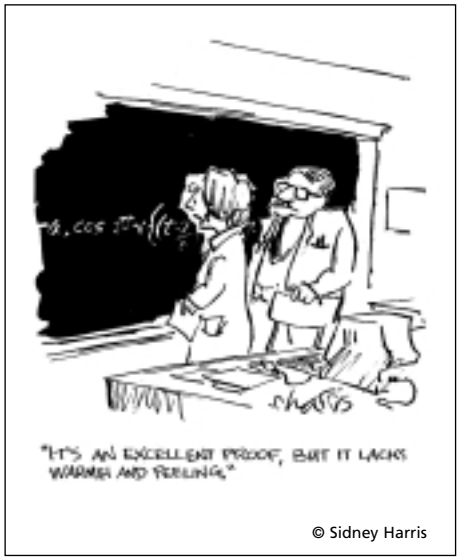
Further information and application forms are available from the web at: www.newton.cam.ac.uk/programmes/PFD/pfdw01.html. Completed application forms should be sent to Tracey Andrew, Programme & Conference Secretary, Isaac Newton Institute, 20 Clarkson Road, Cambridge CB3 0EH or via email to: t.andrew@newton.cam.ac.uk.

Closing date for the receipt of applications is **31 March 2005**.

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 of coffee, and 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/post-doc 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.



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 post-graduate talk should contact Cathy Hobbs (cahobbs@brookes.ac.uk).

Limited funds are available for travel costs. For further information contact Isabelle Robinson at the Society (tel: 020 7929 9979, email: robinson@lms.ac.uk). The organisers of this event are very grateful for the support provided for these meetings by the London Mathematical Society.

SCALAR MIXING IN FLUID FLOWS AND MAPPINGS

The fifth of a series of LMS-supported meetings on Scalar Mixing in Fluid Flows and Mappings, now in its second year, will take place at the Department of Applied Mathematics and Theoretical Physics of the University of Cambridge on 20 April, organised by Peter Haynes. The sixth meeting will take place at University of Exeter on 4 July, organised by Andrew Gilbert.

The aim of these meetings is bring together mathematicians and physicists interested in dynamical systems, fluid mechanics and stochastic processes, both from a mathematical and a practical viewpoint. (See www.ma.ic.ac.uk/~jeanluc/lms-mixing.html for more details.)

The organisers now seek further speakers for the Cambridge and Exeter meetings. If anyone, especially a research student or post-doctoral fellow, would like to give a talk at

either meeting, they should contact Peter Haynes (phh@damtp.cam.ac.uk) and/or Andrew Gilbert (A.D.Gilbert@exeter.ac.uk), preferably by 21 February. There is some financial support for the attendance of research students at the meeting, and also support for invited speakers.

A focus of the fifth meeting will be on so-called 'strange eigenfunctions', which dominate the asymptotic behaviour of the mixing process and have their analogue in ergodic theory as Ruelle-Pollicott resonances for the decay of correlations. The following have already agreed to speak:

- Andrew Gilbert (Exeter) *Eigenfunctions, correlations and diffusion in baker's maps*
- Alex Schekochihin (Cambridge) *Diffusion of passive scalar in a finite-scale random flow: the spectrum of the strange mode*
- Jacques Vanneste (Edinburgh) *Passive scalar decay in smooth random flows*

A focus of the sixth meeting will be applications of mixing to problems in geophysical fluid dynamics. Although the meetings have these general themes, we welcome contributions from mathematicians/scientists working in any areas of mixing in fluid flows or mappings.

JÁNOS BOLYAI MATHEMATICAL SOCIETY

Fejér-Riesz Conference

The János Bolyai Mathematical Society, in cooperation with the Eszterházy Károly College of Eger (Institute of Mathematics and Informatics) is organizing a conference to commemorate the 125th anniversary of the birth of two Hungarian mathematicians: Lipót Fejér and Frigyes Riesz. The scientific activity of this conference will be centred on the main areas of their fields: classical, harmonic and functional analysis. The conference will be in Eger from 8 – 15 June. Plenary speakers are:

- Ákos Császár (Eötvös Loránd University, Hungary)
- János Horváth (University of Maryland, USA)
- Jean-Pierre Kahane (Université de Paris-Sud, France)
- Allan Pinkus (Technion, Israel)
- Barry Simon (California Institute of Technology, USA)

For further information contact the János Bolyai Mathematical Society, Fõ u. 68, Budapest 1027, Hungary (Tel/Fax: (+36) (1) 201-6974, email: bjmt@renyi.hu, web: www.math.u-szeged.hu/confer/fejerriesz/friesz.htm).

Mathematical Logic

The János Bolyai Mathematical Society is organising a conference on mathematical logic to commemorate the 100th anniversary of the birth of two Hungarian logicians, L. Kalmár and R. Péter. The conference will take place on 5 – 11 August. There will be lectures on the following topics:

- Set theory
- Foundations of space-time
- Algebraic logic

For further information contact Gábor Sági, Rényi Institute, Reáltanoda u. 13-15, H-1053 Budapest, Hungary (email: lh05@renyi.hu, fax: (+36) (1) 483-8333, web: www.renyi.hu/~lh05/).

ISAAC NEWTON INSTITUTE

Scientific programme reports

Final scientific reports on the following past programmes at the Newton Institute are now available:

- Random matrix approaches in number theory (January to July 2004)
- Statistical mechanics of molecular and cellular biological systems (January to July 2004)
- Granular and particle-laden flows (September to December 2003)
- Interaction and growth in complex stochastic systems (July to December 2003)
- Spaces of Kleinian groups and hyperbolic 3-manifolds (July to August 2003)

Annual Report

The Institute's Annual Report for 2003-4 is available on the INI website.

Junior Membership

The Newton Institute Junior Membership scheme has now been extended to those working in appropriate research environments in UK commerce and industry. Up to now Junior Membership has only been open to those in Universities or similar research establishments.

2005 events

Model Theory and Applications to Algebra and Analysis (January to July)

- Groups of finite Morley rank - Spitalfields Day (16 March)
- An introduction to recent applications of model theory (29 March - 8 April)
- Pure model theory - a satellite meeting at the University of East Anglia (4 - 8 July)
- Model theory, algebraic and analytic geometry (11 - 15 July)

Developments in Quantitative Finance (January to July)

- Risk management of hedge funds - Spitalfields Day (10 March)
- Insurance mathematics - a satellite meeting at ICMS, Edinburgh (4 - 8 April)
- Quantitative finance: developments, applications and problems (4 - 8 July)

Pattern Formation in Large Domains (August to December)

- Training course: Pattern formation in large domains (1 - 5 August)
- Development in experimental pattern Formation (8 - 12 August)
- Theoretical aspects of pattern formation - a satellite meeting at the University of Surrey (19 - 23 September)
- Theory and applications of coupled cell networks (26 - 30 September)
- Pattern formation in fluid mechanics (12 - 16 December)

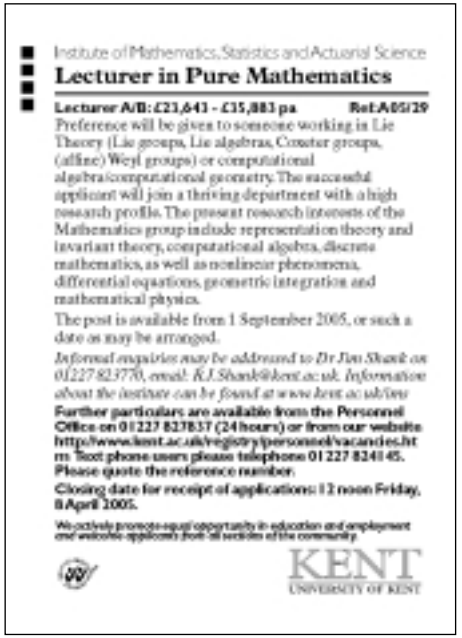
Global Problems in Mathematical Relativity (August to December)

- New directions in numerical relativity – a satellite meeting at Southampton (18 - 19 August)
- Global general relativity (22 - 26 August)
- Einstein constraint equations (12 - 16 December)

Applications to participate in Newton Institute workshops and other events are welcome.

Information

Information on all the above reports and activities is available at www.newton.cam.ac.uk.


Institute of Mathematics, Statistics and Actuarial Science

Lecturer in Pure Mathematics

Lecturer A/B: £21,643 - £35,883 pa **Ref: A05/29**

Preference will be given to someone working in Lie Theory (Lie groups, Lie algebras, Coxeter groups, (affine) Weyl groups) or computational algebra/computational geometry. The successful applicant will join a thriving department with a high research profile. The present research interests of the Mathematics group include representation theory and invariant theory, computational algebra, discrete mathematics, as well as nonlinear phenomena, differential equations, geometric integration and mathematical physics.

The post is available from 1 September 2005, or such a date as may be arranged.

Informal enquiries may be addressed to Dr Jan Shank on 01227 823770, email: K.J.Shank@kent.ac.uk. Information about the institute can be found at www.kent.ac.uk/ims

Further particulars are available from the Personnel Office on 01227 827817 (24 hours) or from our website http://www.kent.ac.uk/registry/personnel/vacancies.htm. Text phone users please telephone 01227 824145. Please quote the reference number.

Closing date for receipt of applications: 12 noon Friday, 8 April 2005.

We actively promote equal opportunity in education and employment and welcome applicants from all sections of the community.

KENT
UNIVERSITY OF KENT

ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES

DEVELOPMENT IN EXPERIMENTAL PATTERN FORMATION

(8 – 12 August 2005)

Supported by the European Commission, Sixth Framework Programme – Marie Curie Conferences and Training Courses – MSCF-CT-2004-516558

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

Organisers: Robert Ecke (Los Alamos), Alastair Rucklidge (Leeds), Harry Swinney (Austin, Texas).

Theme of conference: Patterns are observed in a wide variety of natural systems, including animal coat markings, cloud formations and sand dune ripples. They can also be studied in laboratory experiments, such as thermal convection in a layer of fluid heated from below, nonlinear optics, chemical reactions, surface catalysis, and the Faraday experiment of a vertically vibrating layer of fluid or sand. Remarkably, it turns out that these different systems generate very similar patterns. Advances in experimental techniques and computing power have enabled attention to be focussed on larger domains. Unexpectedly, this has led to the identification of new kinds of spatially extended structures (for example 'spiral defect chaos' and 'quasipatterns') for which theoretical understanding is very much lacking. The aim of this workshop is to bring together experimentalists and theoreticians working on pattern formation, particularly on patterns formed in large domains, with an emphasis on examining key experimental results and discussing the interesting and challenging unsolved problems.

Invited speakers: Guenter Ahlers (UCSB), Eberhard Bodenschatz* (Gottingen/Cornell), Yves Couder (ENS, Paris), Stephan Fauve (ENS, Paris), Jay Fineberg (Jerusalem), William Firth* (Strathclyde), Jerry Gollub (Haverford), Sascha Hilgenfeldt (Northwestern), Lorenz Kramer (Bayreuth), Herbert Levine (UCSD), Tom Mullin (Manchester), Stephen Morris (Toronto), Hans-Georg Purwins (Muenster), Stefania Residori (INLN, Nice), Michael Schatz (Atlanta, Georgia), Victor Steinberg (Weizmann Institute), Paul Umbanhower (Northwestern)
* 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 £440, includes accommodation, breakfast and dinner from dinner on Sunday 7 August to breakfast on Saturday 13 August, and lunch and refreshments during the days that lectures take place. Substantial financial support is available for EU research students and post doctoral researchers with fewer than ten years research experience. 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/pfdw02.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 **29 April 2005**.

ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES
SATELLITE WORKSHOP – UNIVERSITY OF SOUTHAMPTON

NEW DIRECTIONS IN NUMERICAL RELATIVITY

(18 – 19 August 2005)

Supported by the European Commission, Sixth Framework Programme – Marie Curie Conferences and Training Courses – MSCF-CT-2004-516558

in association with the Newton Institute programme entitled *Global Problems in Mathematical Relativity* (8 August to 23 December 2005)

Organisers: Professor H. Friedrich (MPI, Golm), Dr C. Gundlach (Southampton).

Theme of conference: Numerical relativity is still on the road towards reliable simulations of astrophysical scenarios such as binary black hole mergers, binary neutron star mergers, and supernova core collapse, and the mathematically intriguing problem of critical collapse of rotating systems. Key problems are achieving long-term stability of evolutions. In the last few years significant progress has been made in clarifying the underlying mathematical (continuum) problem, and various efforts are under way to transfer these insights to the numerical (discretised) problem.

The meeting will focus on two areas: mathematical aspect of the continuum and discrete problems (well-posedness, gauge, boundary conditions, discretisation methods), and simulations at the edge of what is currently possible.

Invited speakers: Thomas Baumgarte (Bowdoin); Gioel Calabrese (Southampton); Matthew Choptuik (Vancouver); Joerg Frauendiener (Tuebingen); John Friedmann (Milwaukee); David Garfinkle (Oakland); Ian Hawke (Southampton); Heinz-Otto Kreiss* (UCLA); Luis Lehner (Baton Rouge); Oscar Reula (Cordoba); Olivier Sarbach (Caltech); Masaru Shibata* (Tokyo); John Stewart (Cambridge).
* To be confirmed

Location and cost: The Conference will take place on the main campus of the University of Southampton and participants will be housed in Glen Eyre Hall, 10 minutes walk from the conference venue. The conference package, costing £180, comprises 3 nights accommodation in en-suite rooms, breakfast, buffet lunch, cafeteria style dinner and refreshments, from a buffet dinner on 17 August to breakfast on 20 August. Participants who wish to attend but do not require the conference package will be charged a registration fee of £57. Self-supporting participants are very welcome to apply. The conference is supported by the European Commission. Funding for eligible participants is available.

Further information and applications forms are available from the web at: www.newton.cam.ac.uk/programmes/GMR/gmrw01.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**.

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).

MARCH 2005

4 North British Functional Analysis Seminar, Leeds University (334)
5 SECANTS, Royal Holloway University of London (335)
7-9 Research Trends in Science and Technology Conference, American University, Lebanon (330)
10 Risk Management Spitalfields Day, INI, Cambridge (333)
15 Postgraduate Open Day, Loughborough University (334)
16 Groups of Finite Morley Rank Spitalfields Day, INI, Cambridge (334)
18 Edinburgh Mathematical Society Meeting, Aberdeen University (330)
21-23 Postgraduate Combinatorial Conference, Oxford University (333)
21-23 Mathematical Neuroscience Meeting, Royal Society of Edinburgh (333)
23 Mathematics for Networks Workshop, Queen Mary University of London (335)
29-8 Apr Introduction to Recent Applications of Model Theory Conference, INI, Cambridge (330)

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/EPSRC Short Course, Edinburgh University (334)
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

18 LMS Midlands Regional Meeting, Birmingham (335)
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)
25 Women in Mathematics Day, De Morgan House, London (335)
29-4 June Topics on Stochastic Processes LMS/EPSRC 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)
17 LMS Meeting, London
27-1 July 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)
4-9 Nonlinear Wave Phenomena LMS/EPSRC Short Course, Reading University (335)
7-9 International Colloquium, Monst-Hainaut University, Belgium (335)
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)
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)
18-20 Albert Einstein Century International Conference, Paris, France (332)
22-28 International Mathematics Competition for University Students, American University, Bulgaria (334)
22-1 Aug Geometry, Conformal Field Theory and String Theory Durham Symposium, Durham University (333)
25–29 Gregynog Workshop on Computational Techniques in Spectral Theory & Related Topics, Gregynog Hall, Powys (320)
30-6 Aug Groups St Andrews 2005 Conference, St Andrews University (332)

AUGUST 2005

1-5 Pattern Formation Training Course, INI, Cambridge (335)
2-12 Operator Theory and Spectral Analysis Durham Symposium, Durham University (333)
5-11 Mathematical Logic Conference, Budapest, Hungary (335)
8-12 Developments in Experimental Pattern Formation Conference, INI, Cambridge (335)
17-21 Pacific Rim Conference on Mathematics, Fudan University, China (334)
18-19 New Directions in Numerical Relativity INI Satellite Workshop, Southampton Univeristy (335)
21-27 Global General Relativity Conference, INI, Cambridge (334)
30-1 Sep Recent Advances in Non-linear Mechanics, IMA Conference, Aberdeen University (330)

SEPTEMBER 2005

5 LMS South West & South Wales Regional Meeting, Bristol
5-6 Heat Transfer Conference, Manchester University (334)
5-7 Mathematics of Surfaces XI, IMA Conference, Loughborough University (330)
12-14 British Topology Meeting, Bristol University (335)
19-23 Theoretical Aspects of Pattern Formation INI Satellite Meeting, Surrey University (335)
26-30 Annual Meeting of the Australian Mathematical Society, University of Western Australia, Perth (331)

NOVEMBER 2005

18 LMS Annual General Meeting, London
22-26 Kingfisher DELTA 05, Fraser Island, Australia (334)

DECEMBER 2005

19-21 Cryptography and Coding IMA Conference, Royal Agricultural College, Cirencester (334)

APRIL 2006

10-13 BMC, Newcastle University (335)

AUGUST 2006

22-30 International Congress of Mathematicians 2006, Madrid, Spain (323)

GEOFFREY INGRAM TAYLOR
DE MORGAN MEDALLIST
1956

Sir Geoffrey Taylor received the De Morgan Medal on 15 November 1956. Extract from the President's address: 'For nearly fifty years he has been producing fundamental work on an extraordinary variety of problems in applied mathematics, problems which he has not only solved but – invariably – illuminated. A very important part of his work has been concerned with turbulent flow; and here he was the initiator of the modern statistical theory. Another subject where he has been the pioneer is the theory of dislocations in crystals. His work shows throughout a happy interplay of mathematical with experimental skill.'