

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 309

November 2002

FORTHCOMING SOCIETY MEETINGS

Friday 22 November 2002 - London

Annual General Meeting

J.T. Stuart (Presidential Address), J.D. Gibbon

Monday 25 November 2002

South West and South Wales Regional Meeting
Contemporary Aspects of Mathematical Physics

Friday 28 February 2003 - Edinburgh

Mary Cartwright Lecture

Tuesday 11 March 2003 - Manchester

Northern Regional Meeting
Geometric Representation Theory

Wednesday 14 May 2003 - Coventry

Midlands Regional Meeting
Uncertainty Modelling

NEW LOOK FOR NEWSLETTER

After nearly 30 years the *Newsletter* will soon be taking on a new look. Nothing too radical or shocking, we hope, for the many loyal readers whose heart regularly warms to the sight of the reassuring A5 brown envelope in the mail at the beginning of each month - but something a little more 21st century and (dare we say it?) professional in its design, layout and graphics. We hope too that the mention of colour in this context will not cause apoplexy in mathematics common rooms. We are clear, however, that we want to retain a handy pocket-sized format, and we do not aim to copy the fashion styles of any of our sister publications.

The new format will allow for more space and hence for more content. What might that content be? It will not include mathematical articles of any depth: there are other outlets for those, and we feel it is important

to keep a clear line between an essentially ephemeral publication like the *Newsletter* and an archived technical journal (notwithstanding the valuable series of photographs of past Presidents and Honorary Members that we have published since January 1988). Correspondence columns have been tried in the past and failed, perhaps because the turnaround time is too long. We expect to have more reviews of mathematics-related cultural events as well as books of wide interest. Any other ideas? As editors of newsletters of all organisations have intoned, doubtless since the first subscription papyrus was circulated in Nile-side wine bars, the *Newsletter* belongs to the members and will be what you make it. Edited, of course.

David Chillingworth
General Editor

INTERNATIONAL MATHEMATICAL OLYMPIAD Awards Meeting

The Awards Meeting at the Royal Society on 23 September was held to honour the UK team, which participated in the recent International Mathematical Olympiad in Glasgow. Professor Adam McBride (Strathclyde University), the Academic Director, presided and was ably supported in the meeting by the UK IMO Team Leader, Dr Geoff Smith (University of Bath).

The UK team members received two silver medals and two bronze medals, which were presented; moreover all the team members and reserves were honoured and thanked for their hard work, and dedication to Mathematics. A description of aspects of the Olympiad was then given by several members of the team, each of whom spoke well and with verve and enthusiasm. These contributions were much

appreciated by the audience.

As is customary, we were then entertained by a lecture, which was given this year by Dr David Acheson (Oxford University) who spoke wonderfully on 'Mathematics, Magic and the Electric Guitar', even to the extent of giving a short recital on his electric guitar. Needless to say there was tumultuous applause!

The London Mathematical Society is very pleased to have given substantial financial support to the Committee which organised the International Mathematical Olympiad in Glasgow 2002. The benefit to UK Mathematicians of our support for this International Gathering was clearly considerable.

J.T. Stuart
LMS President

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: Dr 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: lms@lms.ac.uk, web: <http://www.lms.ac.uk>)

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LONDON MATHEMATICAL SOCIETY

Friday 15 November 2002

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

**Professor Sandy Green will be awarded the
De Morgan Medal of the London Mathematical Society**

Professor Peter Sarnak
(Courant Institute of Mathematical Sciences, New York, USA)
will speak on
The Spectrum of modular surfaces

The meeting and talk will be in Lecture Room 2 (L2) with business commencing at 4.30 pm at which point Professor Sandy Green will be awarded the De Morgan Medal of the Society, followed by the colloquium by Professor Peter Sarnak. Colloquia are aimed towards a general mathematical audience.

The colloquium will be followed by an informal reception designed to give people the opportunity to have more informal contact with the speaker.

For further information contact Christine Webb, Mathematical Institute, 24-29 St Giles', Oxford OX1 3LB (webb@maths.ox.ac.uk, tel: 01865 273525) or Susan Oakes, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (oakes@lms.ac.uk, tel: 020 7323 3655).

30TH ANNIVERSARY OF DURHAM SYMPOSIA

2005 will be the 30th anniversary of the Durham Symposia. To mark this the LMS is planning various articles (ie in the *Newsletter* and other places) which draw out the success and achievements of this unique series. There is a website (<http://www.maths.dur.ac.uk/events/Meetings/LMS/>) which lists all the meetings, with details and, in many cases, photographs of the participants.

Many members will have attended Durham Symposia over the years. We are seeking your reminiscences and views. Which Symposia stand out as significant in the birth or development of a particular topic? What collaborations started through encounters and discussions at a Symposium? Have you recollections and anecdotes - amusing or poignant but not libellous - from participating in Symposia? We are also seeking photographs to fill the gaps on the Durham Symposia website. Please email your input to John Bolton, University of Durham (john.bolton@durham.ac.uk).

LMS DEADLINES REMINDER

- 1 November** Payment of annual subscription
- 14 November** Return of ballot papers for Council Elections and Nominating Committee
- 18 November** Booking for the Annual Dinner

NEIL BIBBY

Mr Neil L. Bibby, who was elected a member of the London Mathematical Society on 18 May 1984, died on 12 September 2002, aged 56. He was a member of the Council of the Mathematical Association.

SHEILA BRENNER

Dr Sheila Brenner, who was elected a member of the London Mathematical Society on 15 March 1985, died on 10 October 2002, aged 72. Dr Brenner served the London Mathematical Society as an Editor of the *LMS Proceedings* from 1992-98. She joined the staff at the University of Liverpool in 1957, having taught previously at Swansea and Royal Holloway College, and retired in 1997.

LESLIE PRIOR

Mr Leslie E. Prior, who was elected a member of the London Mathematical Society on 25 January 1945, died this year, aged 96. He was an undergraduate at University College Nottingham and joined the staff on graduating in 1924. He remained on the staff until retiring in 1972.

CLIVE KELLY

Dr J. Clive Kelly, who was elected a member of the London Mathematical Society on 15 December 1960, died on 15 October 2002, aged 68. He had been a lecturer at the University of Hull for more than 25 years. He was the founder of bitopological spaces, which have become a significant area in general topology.

BOB LAXTON

Dr R.R. Laxton, who was elected a member of the London Mathematical Society on 15 December 1960, died on 28 September 2002, aged 69. He joined the University of Nottingham in 1966, where he spent the major part of his career apart from brief spells at the Universities of Ife and Arizona.

LONDON MATHEMATICAL SOCIETY

ANNUAL GENERAL MEETING

Friday 22 November 2002

- 3.15 - 3.30 Annual General Meeting
- 3.30 - 4.30 **Professor J.D. Gibbon** (Imperial College)
Singularity Formation in the 3D Euler Equations
- 4.30 - 5.00 Tea
- 5.00 - 6.00 **Professor J.T. Stuart, FRS** (Imperial College)
Presidential Address
Hydrodynamic Stability and Singularities

The meeting will be held in the Chemistry Auditorium,
Christopher Ingold Building, University College London,
20 Gordon Street, London WC1.

All interested are very welcome

Please note the early start

Some funds are available to contribute in part to the expenses of members of the Society or research students who wish to attend the meeting. Requests for support should be addressed to the Programme Secretary, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS. Requests should include an estimate of expenses and a very brief *curriculum vitae*; research students should include brief letters of endorsement from their supervisors.

The meeting will be followed by the Annual Dinner. For further details see the announcement in this *Newsletter*. All enquiries may be addressed to Susan Oakes (tel: 020 7637 3686, email: oakes@lms.ac.uk).

RECORDS OF PROCEEDINGS AT MEETINGS

ORDINARY MEETING

held on *Friday 21 June 2002* at University College London. At least 46 members and visitors were present for all or part of the meeting.

The meeting began at 3.30 pm, with Professor J.T. STUART, FRS, in the Chair. Seven people were elected to Ordinary Membership: H. Khudaverdian, M. Lackenby, J.P. McSorley, S.B. Perkins, A.C. Pugh, C. Stroppel, N.O. Weiss; and one person was elected to Reciprocity Membership: G.O.S. Ekhaguere (Nigerian Math. Soc.).

A lecture was given by Dr J. Marklof on 'Mathematical Models of Quantum Chaos'.

After tea, a

GENERAL MEETING

was held with Professor, J.T. STUART, FRS in the Chair. On a motion proposed by Council, it was agreed to change existing By-Laws I,3, X,2 and XII,3. These had been circulated to members earlier.

On a recommendation from Council it was agreed to elect Dr A.R. Pears and Dr D.J. Collins to be appointed scrutineers in the forthcoming Council elections.

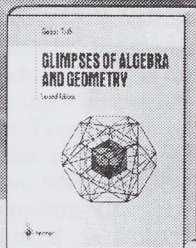
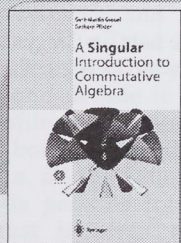
The Ordinary Meeting then resumed. Five members signed the book and were admitted to the Society.

The President, on Council's behalf, proposed that Professor Vaughan Jones, FRS be elected to Honorary Membership of the Society. This was approved by acclaim. The President read a short version of the citation to be published in the *Bulletin*.

The President announced the awards of the Polya Prize to Professor N.J. Hitchin, FRS of Oxford University, the Senior Berwick Prize to Professor J.C. Rickard of Bristol University, the Naylor Prize to Professor M.H.A. Davis of Imperial College, London, and Whitehead Prizes to Dr K.M. Buzzard of Imperial College, London, to Dr A. Corti of Cambridge University, to Dr M. Csörnyei of University College London and to Dr C. Teleman of Cambridge University. The President read short versions of the citations to be published in the *Bulletin*.

The Hardy Lecture was then given by Professor A. Its on 'Integrable Systems and Integrability'.

New textbooks from Springer



www.springer.de/math/

G.-M. Greuel, G. Pfister

A SINGULAR Introduction to Commutative Algebra

This book can be understood as a model for teaching commutative algebra, and takes into account modern developments such as algorithmic and computational aspects. It includes a CD containing SINGULAR as well as the examples and procedures explained in the book.

2002. XVIII, 588 p. With CD-ROM. Softcover
€ 39,95; £ 28,-; sFr 68,50 ISBN 3-540-42897-6

K. Fritzsche, H. Grauert

From Holomorphic Functions to Complex Manifolds

In a clear and understandable manner the authors' familiarize the reader with the most important branches and methods in complex analysis of several variables. The abstract concepts involving sheaves, coherence, and higher-dimensional cohomology have been completely avoided.

2002. XV, 392 pp. 27 figs. (Graduate Texts in Mathematics. Vol. 213) Hardcover € 64,95; £ 45,50; sFr 108,- ISBN 0-387-95395-7

J. Matousek

Lectures on Discrete Geometry

This book is primarily a textbook introduction to various areas of discrete geometry. In each area, it explains several key results and techniques, in an accessible and concrete manner.

2002. XVI, 481 pp. 206 figs. (Graduate Texts in Mathematics. Vol. 212) Softcover € 44,95; £ 31,50; sFr 77,- ISBN 0-387-95374-4

G. Toth

Glimpses of Algebra and Geometry

This book is intended for a "Bridge Course" that facilitates the transition between undergraduate and graduate studies. The new edition includes innumerable improvements throughout the text.

2nd ed. 2002. XXII, 450 pp. 183 figs., 18 in color. (Undergraduate Texts in Mathematics) Hardcover
€ 64,95; £ 45,50; sFr 108,- ISBN 0-387-95345-0

M. Aguilar, S. Gitler, C. Prieto

Algebraic Topology from a Homotopical Viewpoint

This carefully written book can be read by any student who knows some topology. It will be a useful place to quickly learn this novel homotopy-theoretic point of view of algebraic topology.

2002. XXIX, 478 p. (Universitext) Hardcover
€ 79,95; £ 56,-; sFr 133,- ISBN 0-387-95450-3

M. Rosen

Number Theory in Function Fields

This book studies the relationship between number theory in algebraic number fields and algebraic function fields. Because function fields are a bit different from number fields, even the experienced number theorist will learn from this book.

Algebraic geometers will like the book, since the geometry of curves over an algebraically closed field is both pretty and elementary.

2002. XII, 358 pp. (Graduate Texts in Mathematics. Vol. 210) Hardcover € 54,95; £ 38,50; sFr 94,50 ISBN 0-387-95335-3

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Springer

LONDON MATHEMATICAL SOCIETY REGIONAL MEETING
WALES 2002

CYFARFOD RHANBARTHOL CYMDEITHAS MATHEMATEGOL LLUNDAIN
CYMRU 2002

A workshop on Contemporary Aspects of Mathematical Physics will be held at Gregynog Hall from 11.30 am Friday 22 November and end at lunch time on Monday 25 November, and will be followed by a Society regional meeting, as follows:

- | | |
|-------------|--|
| 2.00 - 3.00 | Vaughan Jones (Berkeley)
<i>Skein theory in and out of knot theory</i> |
| 3.00 - 3.15 | LMS business |
| 3.15 - 4.15 | John Lewis (Dublin Institute of Technology)
<i>Large deviation theory in perspective</i> |
| 4.15 | Tea |

The workshop speakers preceding the regional meeting will include: Sir Michael Berry (Bristol), Robbert Dijkgraaf* (Amsterdam), Franco Flandoli (Pisa), Juerg Frohlich* (Zurich), Masatoshi Fukushima (Osaka), Gary Gibbons (Cambridge), Uffe Haagerup (Odense), Lou Kauffman (Chicago), Gus Lehrer (Sydney), Terry Lyons (Oxford), Tetsuji Miwa (Kyoto), Leonid Pastur (Paris), John Roberts* (Rome), Vladimir Turaev (Strasbourg), Wendelin Werner (Paris) and Jean-Bernard Zuber (Saclay). (*to be confirmed)

Part of the workshop will celebrate the 87th birthday of Emeritus Professor Neville Temperley and his contributions to Mathematical Physics. Professor Temperley was head of the Applied Mathematics Department at Swansea for 17 years until his retirement in 1982. He received the Rumford Medal of the Royal Society in 1992.

It is intended that participants will stay at Gregynog Hall for c. £49.50 per night including meals, c. £19.80 for students. The conference dinner will be on the Sunday evening, 24 November. The extra cost for this will be c. £10 for those staying at Gregynog and c. £22.50 for those staying elsewhere. If Gregynog becomes full, we expect that accommodation will be available in Newtown, which is about five miles from Gregynog. For further information regarding accommodation or to request a reservation for accommodation, contact immediately Dr Edwin Beggs, Swansea (E.J.Beggs@swansea.ac.uk). It will be possible for members of the Society to apply for help with their travel costs.

There will be the possibility of submitting short talks and posters. We welcome posters from graduate students and hope to award a prize to the best poster submitted by a student. More information about the programme can be obtained from the scientific organisers: Professor David E. Evans, Cardiff (EvansDE@cardiff.ac.uk) or Professor Aubrey Truman, Swansea (A.Truman@swansea.ac.uk) or visit <http://www.cf.ac.uk/math/opalg/lmsmeeting-e.html>

There are limited funds available to contribute in part to the expenses of members of the Society or research students attending the Society Meeting on Monday 25 November. Requests for support may be addressed to the Programme Secretary, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (email: grants@lms.ac.uk). Requests should include an estimate of expenses and a very brief *curriculum vitae*; research students should include brief letters of endorsement from their supervisors.

DAPHNE JACKSON TRUST

The Daphne Jackson Trust is ready and waiting for all mathematicians who are at home having had a career break and are wondering how best to get back in to research and the working environment. The Trust is celebrating its tenth anniversary this year and as it enters its second decade it is looking to raise its profile and expand. The Trust is aimed at both men and women although, to date, all the Fellows have been women. It is perhaps for this reason that the Trust is often represented at events aimed at encouraging women into science, engineering and technology, such as the launch of the women into science supplement in November's *Good Housekeeping* magazine. It was at this event that Baroness Greenfield, author of the confidential and yet to be published 'Greenfield Report' commissioned by Patricia Hewitt MP, announced some of the recommendations that will appear in her report. One of these was that "the Daphne Jackson Trust scheme should be made much bigger". Good news indeed for the Trust as it continues to try and encourage more potential Fellows to apply and more sponsorship from companies, Research Councils and the like.

The Trust arranges part-time, paid research fellowships in university and industrial research laboratories throughout the UK to return women and men to careers in industry and academia. It has an almost 100% success rate of returning scientists to their careers and it is very proud of the achievements of its Fellows. One such Fellow is Dr Alice Miller, who completed her Fellowship at the University of Glasgow in 2001.

Alice gained her PhD in Number Theory from the University of East Anglia in 1989. She then worked as a senior tutor in the Mathematics Department at the University of Western Australia before starting a family in 1991. Due to family commitments she spent five years in short term, part

time positions in Mathematics (both teaching and research) at the Universities of Western Australia, East Anglia, Stirling and Glasgow. In 1998, wishing to kick start her career, she approached the Department of Computing Science at Glasgow University and was offered a short Fellowship in which to adapt to a Computing Science environment and to complete her application for a Daphne Jackson Fellowship. This involved entering a very different field of research and required a great deal of retraining. Having successfully completed her Fellowship, Alice is now a postdoctoral research fellow in Computing Science at Glasgow University. Alice's supervisor Professor Muffy Calder is extremely supportive of the Daphne Jackson Trust and was very happy to have gained Alice as a valuable addition to her research team.

For further information visit the website www.daphnejackson.org, email: djmft@surrey.ac.uk or telephone: 01483 689166.

Katie Perry
Press Officer, Daphne Jackson Trust

ANNUAL JOURNAL REVIEW

Each year the publishers of British mathematical journals provide us with some data on publication times and other useful information concerning their journals. These are shown in the accompanying table. Some journals have recently chosen the official publication date of each article to be the date on which the electronic version of an article appears, which partly accounts for the shorter times from acceptance to publication. The pricing structures for journals have become increasingly complicated and this year we have simplified the information to show the standard library price of the journal in print plus electronic formats where both are available.

Susan Hezlet
LMS Publisher

ANNUAL JOURNAL REVIEW

Journal	Issues per year	Pages per year	Back log pages	Av time from sub to acceptance months	Av time from accept. to publication months	Library price Year p = print version e = electronic version	Web address
Algebraic and Geometric Topology	1	800	0	4	0	Free (e) 2003	http://www.maths.warwick.ac.uk/agt
Bulletin of the LMS	6	768 (864 in 2003)	0	7	8	£206 (p + e) 2003	http://uk.cambridge.org/journals/blm
Classical and Quantum Gravity	24	6500	0	4	1	£1785 (p + e) 2003	http://www.iop.org/journals/cqg
European Journal of Applied Mathematics	6	750	300	5	4	£218 (p + e) 2003	http://uk.cambridge.org/journals
Glasgow Mathematical Journal	3	600	30	5	15	£126 (p + e) 2003	http://uk.cambridge.org/journals/gmj
Geometry and Topology	1	900	0	5	0	Free (e) 2003	http://www.maths.warwick.ac.uk/gt
IMA Journal of Applied Mathematics	6	624	0	3	5	£375 (p + e) 2003	http://www.imamat.oupjournals.org
IMA Journal of Numerical Analysis	4	720	100	6-8	6	£265 (p + e) 2003	http://www.imanum.oupjournals.org
Inverse Problems	6	2000	0	4.5	1	£832 (p + e) 2003	http://www.iop.org/journals/ip
Journal of Fluid Mechanics	24	10000	400	10	6	£1196 (p + e) 2003	http://jfm-www.damtp.cam.ac.uk
Journal of the LMS	6	1536 (1632 in 2003)	146	7.5	7	£448 (p + e) 2003	http://uk.cambridge.org/journals/jlm

Journal of Natural Geometry	2	287	0	2	6	£100 (p) 2003	None
LMS Journal of Computation and Mathematics	1	210	0	7	1.3	Free (e) 2003	http://www.lms.ac.uk/jcm
Mathematical Proceedings of the Cambridge Phil Society	6	1200	1500	3-4	16	£354 (p + e) 2003	http://uk.cambridge.org/journals/psp
Mathematika	1	416	500 - 600	9	15	£55 (p) 2000	None
Nonlinearity	6	2100	0	8	1	£660 (p + e) 2003	http://www.iop.org/journals/non
Proceedings of the Edinburgh Math Society	3	672	50	6	12	£150 (p + e) 2003	http://uk.cambridge.org/journals/pem
Proceedings of the LMS	6	1536 (1632 in 2003)	250	9	12	£488 (p + e) 2002	http://www.lms.ac.uk/publications/proceedings
Proceedings of the Royal Society of Edinburgh A	6	1536	461	7	11	£250 (p + e) 2002	http://www.ma.hw.ac.uk/RSE/publications/volumes/proc_a.htm
Proceedings (A) of the Royal Society	12	3000	250	7	6	£680 (p + e) 2002	http://www.pubs.royalsoc.ac.uk/proc_maths/proc_maths.html
Quarterly Journal of Mathematics	4	512	20	7	6	£185 (p + e) 2003	http://www3.oup.co.uk/qmathj/
Quarterly Journal of Mechanics and Applied Mathematics	4	650	80	7	8	£260 (p + e) 2003	http://qjmam/oupjournals.org

MULTISCALE MODELLING, MULTIREOLUTION AND ADAPTIVITY EUROCONFERENCE

7 - 11 April 2003

in association with the Newton Institute programme entitled
Computational Challenges in Partial Differential Equations
(20 January - 4 July 2003)

Supported by the European Commission, Research DG, Human Potential Programme,
High-Level Scientific Conferences. Contract number HPCF-CT-2002-00106

Scientific committee: Mark Ainsworth (University of Strathclyde), Wolfgang Dahmen (RWTH Aachen), Christoph Schwab (ETH Zürich) and Endre Süli (University of Oxford).

Invited speakers: Mark Ainsworth (Strathclyde), Eberhard Bänsch (Berlin, Germany), Franco Brezzi (Pavia, Italy), Claudio Canuto (Torino, Italy), Carsten Carstensen (Vienna, Austria), Albert Cohen (Paris, France), Wolfgang Dahmen (Aachen, Germany), Ron DeVore (South Carolina, USA), Weinan E (Princeton, USA), Björn Engquist (Princeton, USA & Stockholm, Sweden), Tom Hou (Caltech, USA), Claes Johnson (Göteborg, Sweden), Rolf Rannacher (Heidelberg, Germany), Christoph Schwab (Zürich, Switzerland), Jinchao Xu (Pennsylvania, USA).

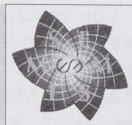
Programme content: Multiscale problems will remain computationally expensive or completely intractable for the foreseeable future unless new algorithmic paradigms of computation are developed which fundamentally embrace the multiscale nature of these problems. The meeting is devoted to addressing this question, with focus on recent developments, by bringing together leading experts from applied mathematics, material science, and various branches of scientific computation, who work on different aspects of multiscale modelling.

Location and cost: The conference will take place at the Newton Institute and accommodation for participants will be provided at New Hall. The workshop package, costing £420, includes accommodation, breakfast and dinner from dinner on Sunday 6 April until breakfast on Saturday 12 April 2003, and lunch and refreshments during the days that lectures take place. Numbers will be restricted to about 100 participants.

Support: The Euro-Conference is supported by the European Community and funding is available to support a limited number of young (under 35 years of age) researchers and overseas senior researchers who are nationals of EC Member States or of the Associated States (Iceland, Liechtenstein, Norway, Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Israel, Switzerland). Self-supporting participants of any age and nationality are welcome to apply.

Further information and applications forms are available from the web (<http://www.newton.cam.ac.uk/programs/CPD/cpdw03.html>). Completed application forms should be emailed to Tracey Andrew at the Isaac Newton Institute, 20 Clarkson Road, Cambridge CB3 0EH, or via e-mail (t.andrew@newton.cam.ac.uk). Closing date for the receipt of applications is **29 November 2002**.

THE EUROPEAN MATHEMATICAL SOCIETY



The European Mathematical Society (EMS) has been in existence for 12 years. Has it fulfilled the vision of its founders? The answer must be a resounding affirmative, except in one respect, which I shall come to at the end. That vision was to bring together the mathematicians of Europe, East and West, and to represent those mathematicians in international bodies, in particular, the European Union.

Since the inception of the Society, its officers have negotiated with the European Union, patiently and repeatedly pointing out where the EU's science policies neglect or harm mathematics. Though we don't get as much as we want, the Society has succeeded in preventing mathematics being effectively written out of the EU's funding programmes. What is more, one of the Society's suggestions; namely Marie Curie fellowships for returning scientists, has been adopted by the EU for the 6th Framework programme.

The Society has been successful in seeking European Union support for Zentralblatt MATH and the projects EULER and LIMES. These can all be accessed at EMIS, the European Mathematical Information Service (www.emis.de), itself an initiative of the Society. It has also been successful in getting EU funding for the reference levels projects and the project for raising public awareness of mathematics (see EMIS).

Support for the EMS has been forthcoming from UNESCO-Roste. This has taken the form of grants to enable mathematicians from Eastern Europe or developing countries to attend events such as the EMS Summer Schools and the European Congresses of Mathematics, for which the European Union has also provided support.

The first European Congress was held

in Paris in 1992. This was followed by Budapest (1996) and Barcelona (2000). The fourth, in Stockholm in June 2004, will emphasise the interaction between mathematics and its applications (though it won't neglect advances in fundamental mathematics).

This brings me to one of the themes close to the heart of Rolf Jeltsch, current President of the EMS. He sees the EMS as representing the community of applied mathematicians as much as those doing pure mathematics. In recent years the Society has raised the profile of applied mathematics in its activities. One part of doing that was to hold a meeting together with representatives of the applied mathematics community: this resulted in a better understanding of what the society needed to do (see the Berlingen Declaration on the EMIS website).

Another activity particularly associated with Rolf Jeltsch is the successful setting up of the EMS Publishing House, as part of a foundation linked to the Society. This has the generous support of the Eidgenössische Technische Hochschule in Zürich. As commercial publishing becomes concentrated into a few large firms, it is important that independent academic, not-for-profit, operations should thrive. The publishing house will start producing books and journals in the spring of 2003. A year later, it will take over responsibility for the *Journal of the European Mathematical Society*. This has established itself as a periodical for high-quality articles in both pure and applied mathematics.

The EMS will continue to run the Summer Schools (for graduate students), the EMS lectures and the Diderot Forums. These last are events held simultaneously in three centres, connected by audiovisual links. The proceedings of the forum on mathematics and music have just been published by Springer.

The meetings programme has already been expanded to include joint meetings with SIAM (in Berlin 2001 and with IPAM in May 2003). In February 2003 we start a series of meetings with European National Societies, at Nice with both French Societies (SMF and SMAI). In September 2003 we shall co-host a meeting in Lisbon with the Portuguese Mathematics Society.

I could go on to recount much more, for instance the role of the EMS as the European partner in the mathematics digitisation programme, its presence on the board of the Banach Centre, or its relationship with the Abel prize. But I referred at the beginning to one relative failure and that is where you could help. We have a fairly complete list of corporate members, who are, in the main, the national European mathematical societies. But we don't have enough individual members - at present there are about 2,300 of us. To be fully representative, we need more. For a modest fee (€20 from 2003) you can support the Society's activities and participate in its gover-

nance. (You can pay your EMS subscription at the same time as you pay your LMS subscription.) You will also receive the quarterly EMS Newsletter, an attractive and entertaining magazine containing interviews with mathematicians, short book reviews, news about the Society and much more. For further information visit the website (<http://www.emis.de/>)

David Salinger
EMS Publicity Officer

ANNUAL DINNER

The Annual Dinner will be held after the Annual General Meeting on Friday 22 November at 7.30 pm at the Court Restaurant, The British Museum, Great Russell Street, London WC1. The cost is £30.00 per person and members may book places for guests. The booking form, enclosed with the October *Newsletter*, should be returned together with payment to the London Mathematical Society office by **Monday 18 November**.



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Experimental Mathematics

Algorithms and Complexity

2nd edition

Herbert S. Wilf

2002; ISBN: 1-56881-178-0
Hardcover; 200 pp. \$35.00
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This classic text focuses on the fundamental aspects of algorithms and deals with:

- Design and analysis of algorithmic complexity
- The network flow algorithm and combinatorics
- Cryptanalysis, probabilistic primality testing, and public key encryption

Discrete Algorithmic Mathematics

2nd edition

Stephen B. Maurer,
Anthony Ralston

1998; ISBN: 1-56881-091-1
Hardcover; 910 pp. \$59.00

A classic text to be used for a half- or full-year course in discrete mathematics.

- Extensive and detailed study of algorithms
- Emphasis on the recursive and inductive paradigms
- Thorough coverage of difference equations, probability, and logic



Algebra and Discrete Mathematics

Symmetries and Ordered Structures under the Influence of Model Theory and Combinatorics

Hattingen (near Essen), Germany, 26 – 31 July 2003

Chair: John Kenneth Truss (University of Leeds, UK)

Vice-Chair: Christian Michaux (Université de Mons-Hainaut, B)

Speakers will include

Elisabeth Bouscaren (U. Paris VII, F)	Dietrich Kuske (Leicester U., UK)
Gregory Cherlin (Rutgers U., Piscataway, US)	Christian Michaux (UMH, Mons, B)
Thierry Coulbois (U. Paris VII, F)	Andrei Morozov (Novosibirsk U., RU)
Manfred Droste (TU Dresden, D)	Ludomir Newelski (Wroclaw U., PL)
Mirna Dzamonja (U. of East Anglia, Norwich, UK)	Akbar Rhemtulla (Alberta U., Edmonton, US)
David Evans (U. of East Anglia, Norwich, UK)	Matatyahu Rubin (Ben Gurion U., Beer Sheva, IL)
Rüdiger Göbel (U. Essen, D)	Vladimir Tolstikh (Kemerovo U., RU)
Gracinda Gomes (U. Lisbon, P)	Mikhael Volkov (Ekaterinburg U., RU)
Charles Holland (Bowling Green U., US)	Frank Wagner (Lyon U., F)

Scope of the conference

The main focus of the meeting will be the rich interaction between the theory of infinite permutation groups, specifically realized as automorphism groups of sufficiently homogeneous structures, and model theory. Themes which have been pursued with considerable success in this field include classification theory for homogeneous structures, reconstruction of the structures from their automorphism groups, including use of the 'small index property', and detailed analysis of homogeneous structures by means of their automorphism groups.

There will be a particular emphasis on graphs, digraphs, and ordered structures, which, although many of them are unstable, have nevertheless admitted some spectacular classifications in special cases. In addition the connections with parts of algebra will receive attention, principally group theory, but also rings and fields, and semigroups and automata. The specific body of techniques which will underpin this is mainly combinatorial, though use of the relevant formal languages used will also contribute model-theoretic input.

The conference is open to researchers world-wide, whether from industry or academia. Participation will be limited to 100. The emphasis will be on discussion about new developments. The conference fee covers registration, full board and lodging. Some grants will be available upon request.

Deadline for applications: 3-4 months prior to the conference

Scientific Programme and on-line application at: www.esf.org/euresco/03/pc03101

For printed copies, contact: Dr. J. Hendekovic, European Science Foundation,
EURESCO Unit, 1 quai Lezay-Mamésia, 67080 Strasbourg Cedex, France
Tel.+33 388 76 71 35 Fax.+33 388 36 69 87 E-mail: euresco@esf.org

INTERNATIONAL MATHEMATICA SYMPOSIUM 2003

The International *Mathematica* Symposium is an interdisciplinary conference for users of *Mathematica* in research, education, industry and commerce. Held every two years, it returns to England in 2003 for the first time since its inception in 1995. The Symposium is refereed, and a published Proceedings is produced for each conference. The Symposium will run from 7-11 July, with pre-conference training sessions organised by Wolfram Research. College accommodation is available, and special rates with local hotels have been agreed. Registration rates will be around £250. Grants and subsidies are available for participants in certain categories.

If you use *Mathematica* in research or with students, or if you have developed or are developing products based on *Mathematica*, then the Symposium is an opportunity to share your results with like-minded colleagues. IMS has also built up a deserved reputation as an exceptionally convivial and friendly gathering. In 2003 it will be held at Imperial College, London.

Confirmed plenary speakers at this stage include:

- Stephen Wolfram, creator of *Mathematica* and CEO of Wolfram Research, whose book *A New Kind of Science* has recently been published.
- Roman Maeder, author of *The Mathematica Programmer* and *Computer Science with Mathematica*, and one of the undisputed world experts on programming in *Mathematica*.
- Bruno Buchberger, creator of *Theorema*, and the leading authority on logic and proving using *Mathematica*.
- Carl McTague, young mathematician and composer of the *Mathematica*-based piece, *Six Integers*.

Colleagues are invited to submit one or more of the following: an abstract for a

paper, a proposal for a discussion panel, a poster presentation or a software demonstration.

The closing date for abstracts for LMS members is **1 December 2002**, and for other submissions it is *15 March 2003*. For further details visit the website (<http://metric.ma.ic.ac.uk/ims03/>).

BRINGING MATHS TO EVERYONE

The Millennium Mathematics Project (<http://mmp.maths.org>) is a long-term national initiative, based at Cambridge University, aimed at helping people of all ages and abilities to share in the excitement of mathematics and to understand the enormous range and importance of its applications to science and commerce.

One of our activities is *Plus* (<http://plus.maths.org>), an online magazine for older pupils (15+) and the general public, published 5 times a year. It contains articles explaining the diverse and fascinating applications of mathematics within the sciences, commerce, society at large and the arts. It provides stories about new developments in mathematics, and, to encourage the further study of mathematics, each issue features an interview with someone who uses mathematics in their work - from aerodynamicist to actuary, from sales forecaster to systems administrator. There is plenty for research mathematicians to enjoy, and we are always looking for contributors!

Our longest-established activity is NRICH (<http://nrich.maths.org>), an online maths club for children from 5 to 18, providing free teaching resources for schools and extra-curricular activities for maths clubs, masterclasses and children at home. The material is designed to take children beyond the confines of school syllabuses, to help them enjoy problem solving and appreciate the significance and range of applications of mathematics. The NRICH online magazine is published nine times a year. In 1998 NRICH developed a dedicated primary education version, NRICH Prime.

As well as our online activities, we run a 'Hands On Maths Fair' which visits schools and public spaces such as shopping centres, and MOTIVATE, a video-conferencing project to enrich mathematics teaching in primary and secondary schools.

The MMP is committed to keeping both Plus and NRICH completely free for individual users. However, we rely very heavily on donations and corporate sponsorship to continue all our activities, and we are currently urgently seeking further funding to secure our immediate future, as several generous past donations are now coming to an end.

If you'd like to know more, or to get involved, visit our websites or email me (hjj24@cam.ac.uk).

Helen Joyce
Plus Magazine Editor

THE ABEL PRIZE Call for nominations

The Niels Henrik Abel Memorial Fund was established on 1 January 2002, with the main object to award an international prize for outstanding scientific work in the field of mathematics. The prize which will be approximately NOK 6 million (€750,000) will be awarded for the first time in early June 2003, and the name of the Abel laureate will be announced two months earlier.

To nominate candidates for the Abel Prize and submit a recommendation to the Norwegian Academy of Science and Letters, an Abel Committee of five mathematicians has been appointed. The Norwegian Academy of Science and Letters will select the Abel laureate on the basis of the recommendation from the Abel Committee.

The first year every mathematician is eligible to nominate a candidate for the Abel Prize. The letter with the nomination should contain a CV and a bibliography of the candidates' work plus 2-3 letters of recommendations from distinguished specialists in the field of the nominee.

Nominations can be within the following fields of mathematics:

- Logic
- Algebra
- Number
- Differential Geometry
- Topology
- Algebraic and Complex Geometry
- Lie Groups and Representation Theory
- Real and Complex Analysis
- Probability and Statistics
- Partial Differential Equations and Dynamical Systems
- Mathematical Physics
- Combinatorics
- Mathematical Aspects of Computer Science
- Numerical Analysis and Scientific Computing
- Applications of Mathematics in the Sciences

The letter should be sent to: The Norwegian Academy of Science and Letters, Drammensveien 78, NO-0271 Oslo, Norway not later than **15 November 2002**. For further information visit the website (<http://www.math.uio.no/abel/english/index.html>).

FERMAT PRIZE

The Fermat Prize rewards research work in: Statements of Variational Principles, Foundations of Probability and Analytical Geometry, Number Theory.

The amount of the Fermat Prize is €15,000. It is organised with the support of Astrium and awarded once every two years in Toulouse; the eighth award will be announced in October 2003. Rules governing the award are available from the organising secretariat (Prix Fermat de Recherche en Mathématiques, Université Paul Sabatier, 118 route de Narbonne, 31062 Toulouse Cedex 4, France) or on the web (http://www.ups-tlse.fr/ACTUALITES/Sciences/Prix_Fermat_2003/index.html). The closing date for applications is **30 June 2003**.

MATHEMATICS RESEARCH CENTRE - UNIVERSITY OF WARWICK

Programme of Events

Symposium 2002/2003

GEOMETRIC & PROBABILISTIC ASPECTS OF DYNAMICAL SYSTEMS

Organisers: Sebastian van Strien & Peter Walters

Symposium Workshops

- 9-13 December 2002 *Real and Complex One-dimensional Dynamics*
Organisers: Oleg Kozlovski and Sebastian van Strien
- 7-12 April 2003 *Holomorphic Dynamics*
Organiser: Adam Epstein
- 7-18 July 2003 *Symbolic Dynamics and Ergodic Theory*
Organisers: Omri Sarig and Peter Walters
- 21-25 July 2003 *Geometric Aspects of Dynamical Systems*
Organisers: Oleg Kozlovski and Sebastian van Strien

Workshops 2002/2003

- 9-14 January 2003 *UK-Japan Winter School*
Principal lecturers : TJ Lyons (Oxford), JP Keating (Bristol)
Organisers: KD Elworthy (Warwick), J Eells (Cambridge), Y Ito (Keio), A Atsuji (Keio), Y Maeda (Keio)
- 15-17 May 2003 *Calculus of Variations: Analytical and topological aspects of critical point theory in multi-dimensional problems*
Organiser: A Taheri (Warwick)
- 2-6 June 2003 *Hayashibara Forum* (at Oxford and Warwick)
This meeting will discuss ergodic theory, integrable systems and mechanics, noncommutative geometry and mathematical physics.
Organisers: M Keane (Amsterdam), Y Maeda (Keio), H Nakada (Keio)
Locally Organisers: KD Elworthy (Warwick) TJ Lyons (Oxford)
- 4-15 August 2003 *Stochastic partial differential equations and related topics*
Organisers: KD Elworthy, A Stuart, R Tribe

Symposium 2003/2004

NON-COMMUTATIVE ALGEBRA

Organisers: Charudatta Hajarnavis and Dmitriy Rumynin

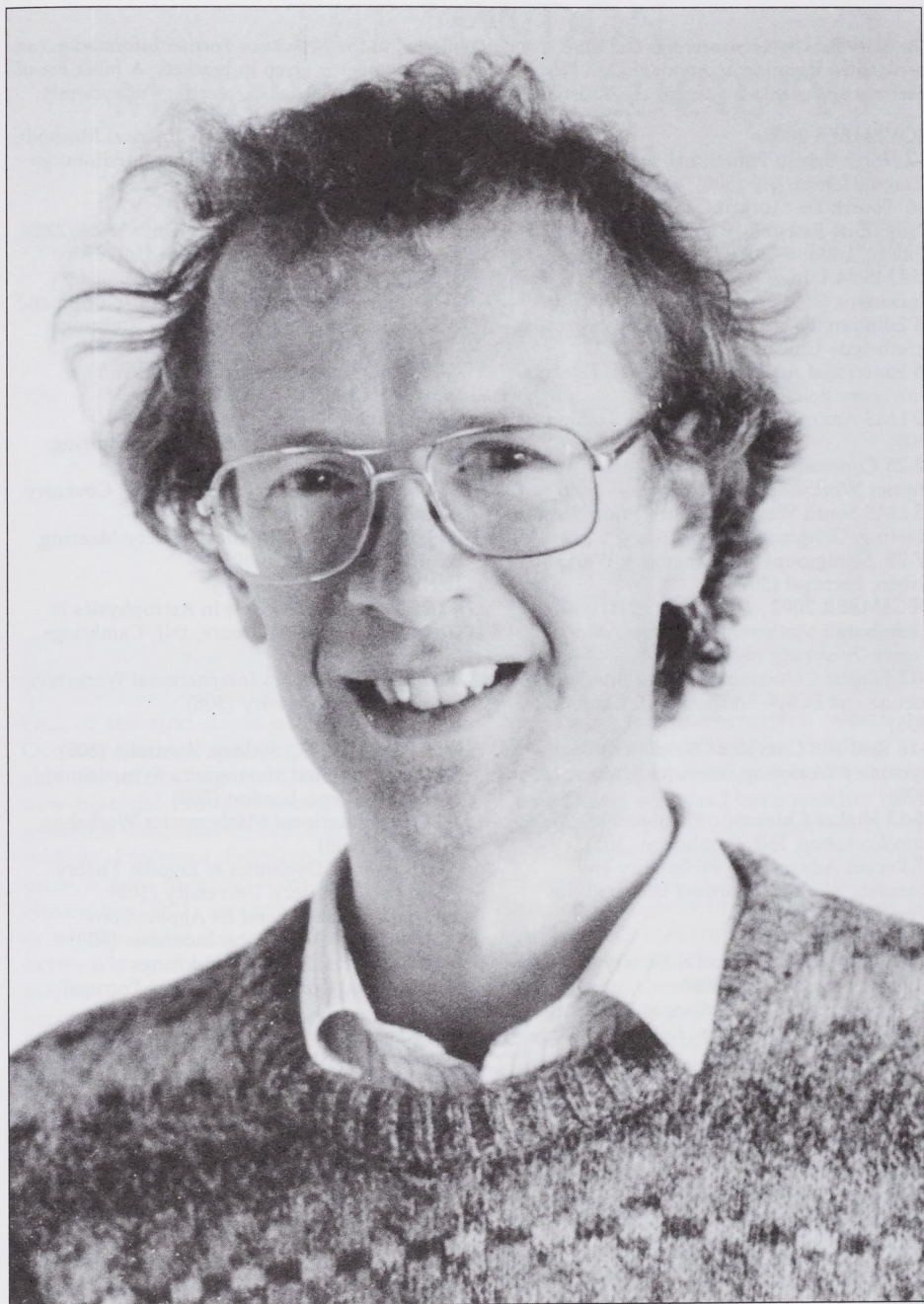
Symposium Workshops

- 1-5 September 2003 *Derived Categories in Algebra and Geometry*
LMS/EPSRC Instructional course (to be confirmed)
Organiser: D Rumynin
- 8-12 September 2003 *Ring Theory*
Organiser: CR Hajarnavis
- December 2003 (dates to be confirmed) *Representation of Finite Dimensional Algebras*
Organiser: D Rumynin

For further information contact: Mathematics Research Centre, University of Warwick, Coventry CV4 7AL.

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<http://www.maths.warwick.ac.uk/events.html>



A.J. WILES
HONORARY MEMBER 2001

DIARY

The diary lists Society meetings and other events publicized 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 in the Society's web site (<http://www.lms.ac.uk/meetings/diary.html>).

NOVEMBER 2002

1-2 North British Functional Analysis Seminar, Glasgow University (308)

4-6 Fourth De Morgan Conference: Combining Probability and Logic, King's College, London (307)

15 LMS Meeting/Oxford Colloquium, Oxford University (309)

15 Edinburgh Mathematical Society Meeting, Strathclyde University (308)

16 Functional Analysis Conference, Queen's University Belfast (305)

22 LMS Annual General Meeting, London (309)

22-25 Contemporary Aspects of Mathematical Physics Workshop, Gregynog Hall (309)

25 LMS South West and South Wales Regional Meeting, Gregynog Hall (309)

27-29 Semigroups and Languages Workshop, Lisbon, Portugal (307)

DECEMBER 2002

6 Edinburgh Mathematical Society Meeting, Napier University (308)

9-13 Elliptic Cohomology & Chromatic Phenomena EuroWorkshop, INI, Cambridge (305)

9-13 Real and Complex One-dimensional Dynamics Workshop, Warwick University (308)

16-12 Higher Chromatic Phenomena EuroWorkshop, INI, Cambridge (305)

17 Recent Advances in Probability and Statistics Workshop, Brunel University of West London (306)

JANUARY 2003

17 Edinburgh Mathematical Society Meeting, Edinburgh University (308)

20-24 Mathematical Challenges in Scientific & Engineering Computation, INI, Cambridge (306)

FEBRUARY 2003

10-14 Permutation Patterns Conference, Otago University, New Zealand (303)

13-14 Computational Challenges in Micromagnetics & Superconductivity, INI, Cambridge (306)

14 Edinburgh Mathematical Society Meeting, Stirling University (308)

28 LMS Mary Cartwright Lecture, Edinburgh

MARCH 2003

7 Edinburgh Mathematical Society Meeting, Abertay University of Dundee (308)

11 LMS Northern Regional Meeting, Manchester University

31-4 Apr SDEs and SPDEs: Numerical Methods and Applications ICMS Workshop, Edinburgh (308)

APRIL 2003

7-10 BMC 2003, Birmingham University (296)

7-10 BAMC 2003, Southampton University (296)

7-11 Multiscale Modelling, Multiresolution and Adaptivity Euroconference, INI, Cambridge (309)

7-12 Holomorphic Dynamics Workshop, Warwick University (308)

MAY 2003

2 Edinburgh Mathematical Society Meeting, Edinburgh University (308)

14 LMS Midlands Regional Meeting, Coventry University

30 Edinburgh Mathematical Society Meeting, Aberdeen University (308)

JUNE 2003

23-27 Hyperbolic Models in Astrophysics & Cosmology EuroConference, INI, Cambridge (308)

30-3 Jul Max-Algebra International Workshop, Birmingham University (308)

JULY 2003

7-11 ICIAM 2003, Sydney, Australia (308)

7-11 International *Mathematica* Symposium, Imperial College, London (309)

7-11 Computational Mathematics Workshop, Indonesia (308)

7-18 Symbolic Dynamics & Ergodic Theory Workshop, Warwick University (308)

14-17 Mathematics and its Applications International Conference, Indonesia (308)

14-18 Algebras, Modules and Rings International Conference, Lisbon, Portugal (308)

21-25 Geometric Aspects of Dynamical Systems Workshop, Warwick University (308)

27-9 Aug Banach Algebras & their Applications Conference, Edmonton, Alberta (302)

AUGUST 2003

28-5 Sept New Horizons in Arithmetic Geometry, Durham University (307)

APRIL 2004

5-8 British Mathematical Colloquium, Queen's University Belfast

JULY 2004

4-11 ICME10 - International Congress of Mathematical Education, Denmark (308)

SEPTEMBER 2004

1-6 Pan-African Congress of Mathematicians, Tunisia (308)