

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 296

September 2001

FORTHCOMING SOCIETY MEETINGS

Wednesday 12 September - Bristol

South West and South Wales Regional Meeting

Friday 23 November - London

Annual General Meeting

Professor J.F. Toland FRs

Professor A.S. Fokas (Naylor Lecture)

COUNCIL DIARY June 2001

The June Council meeting was another short one. The most substantial part of the business was the Treasurer's report, which contained the Annual Budget for approval. The Budget represents a forecast of income and expenditure rather than setting strict limits on individual items, and it is understood that flexibility is needed. The Society's invested wealth increases (or decreases) both through interest payments and through capital appreciation. A model is needed to set spending levels in relation to each of these. It was decided to adopt a simplified version of the Yale model, which bases each year's spending X_n on a combination of the previous year's spending X_{n-1} and the value of assets other than property Y_{n-1} . More precisely, $X_n = \alpha X_{n-1} + (1-\alpha) \beta Y_{n-1}$ where currently α equals 0.7 and β equals 0.04. A feature of this model is that it smooths spending year by year, and parameters within it can easily be adjusted in response to changing financial circumstances. This flexibility was felt to be a definite advantage to a society whose primary aim is not to amass capital but to support mathematics.

A budget of £5,000 has now been established for the new Scheme (6) of Connectivity Grants. Up to £500 will be awarded towards the cost of exploring potential new collaborations between mathematicians and non-mathematicians on new applications of mathematics. The use of grants is not restricted but might include the costs of a small-scale meeting to identify problems or travel costs to bring in external experts. The intention is basically to help the applicants do preparatory work prior to submitting a larger scale application elsewhere. More details are given below.

The International Olympiad for Mathematics is planned to take place in Glasgow in July 2002. Council agreed to support the event with a pump-priming grant.

The LMS continues to make progress with the partnership agreement for the production of *Compositio Mathematica*. Council was presented with a draft of a contract with the *Compositio Mathematica* Foundation, and approved it.

Helen Robinson attended this Council

meeting in her capacity as a non-Council member chairing the Women in Mathematics committee. This year the first LMS sponsored Daphne Jackson fellowship was advertised, a fellowship to fund scientists returning after a career break part-time to reorient their skills in a discipline different from their original one, but was not in fact filled. Both the two leading (and very high quality) applicants had ultimately withdrawn, with one taking up another research post. This is a rather typical outcome for a scheme of this nature; it is definitely considered to be worthwhile, and will be continued next year.

Sarah Rees

MATHEMATICAL WHO'S WHERE - UNITED KINGDOM 2001 Edition

This directory contains information about mathematicians and mathematics departments in universities in the UK. A copy is enclosed with this mailing of the *Newsletter* to each member with an address in the area covered by the directory. Copies are available for purchase at a price of £6.00 or US\$12.00 per copy inclusive of postage, from the London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS. Cheques should be made payable to the 'London Mathematical Society'.

FRANK GERRISH

Mr Frank Gerrish, who was elected a member of the London Mathematical Society on 21 October 1954, died on 18 May 2001, aged 75.

PHILLIPPA J. SURGEY

Ms Phillipa J. Survey, who was elected a member of the London Mathematical Society on 16 February 1990, died on 4 July 2001, aged 56.

LMS CONNECTIVITY GRANTS SCHEME 6

Up to £500 may be awarded towards the cost of exploring potential new collaborations between mathematicians and non-mathematicians on new applications of mathematics. The use of the grants is not restricted but might include the costs of a small-scale meeting to identify problems or travel costs to bring in external experts. The intention is to help the applicants do the preparatory work prior to a larger scale application to EPSRC. The application should be by short letter giving:

- (a) the names of at least two co-applicants, one a member of a mathematical science department and one a member of a non-mathematical department;
- (b) outline CVs of the two applicants;
- (c) a description of how the grant would be used.

If none of the applicants is a member of the Society then the application must be countersigned by a member. Preference will be given to novel areas of application. Support for existing collaborations is not eligible. For further information contact Sylvia Daly, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (tel: 020 7291 9971, fax: 020 7323 3655, e-mail: daly@lms.ac.uk).

FREDERICK J. YEADON

Dr Frederick J. Yeadon, who was elected a member of the London Mathematical Society on 18 November 1994, died on 9 June 2001, aged 59.

EILEEN SIMPSON

Mrs Eileen Simpson, who was part-time Administrative Assistant of the London Mathematical Society from 1 March 1977 - 31 January 1981, died in July 2001.

LONDON MATHEMATICAL SOCIETY

LMS SOUTH WEST AND SOUTH WALES REGIONAL MEETING

SCHOOL OF MATHEMATICS UNIVERSITY OF BRISTOL

12 September 2001

- 3.00 - 4.00 Kurt Johansson (KTH, Stockholm)
From Szegő's theorem to random matrices and more
- 4.00 - 4.45 Tea and Poster Session I
- 4.45 - 5.45 Peter Sarnak (Princeton University)
Families of zeta functions, applications and conjectures
- 5.45 - 7.00 Poster Session II
- 7.00 Reception and Buffet Dinner in Royal Fort House

A registration form and further details are on the web
<http://www.maths.bris.ac.uk>

The meeting will be held at the School of Mathematics, University of Bristol. For further details contact Dr Jens Marklof, School of Mathematics, University of Bristol, University Walk, Bristol BS8 1TW (tel: 0117 928 7980, fax: 0117 928 7999, e-mail: j.marklof@bristol.ac.uk).

There are limited funds available to contribute in part to the expenses of members of the Society or research students attend the meeting. Requests for support may be addressed to the Meetings & Membership Secretary, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS (e-mail: 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.

The meeting will be followed by a workshop on **Zeta Functions, Random Matrices and Quantum Chaos** from 13 - 14 September.

LEVERHULME TRUST AWARDS

The Leverhulme Trust 2001 Awards to individuals have been announced. The trustees have approved the awards to individuals under schemes administered by their Research Awards Advisory Committee. They include the following LMS members: C.M. Goldie (Sussex), D.J. Higham (Strathclyde), J.R. Hunton (Leicester), M.J. Nicol (Surrey), G.P. Parry (Nottingham), A.A. Ranicki, FRSE (Edinburgh), A.J. Scholl (Durham), J. Sivaloganathan (Bath) and V.P. Snaith (Southampton).

TEACHING AND LEARNING GEOMETRY

The report prepared by the Royal Society and the Joint Mathematical Council on the teaching and learning of geometry in schools and colleges has now appeared. A summary can be found on the web (www.royalsoc.ac.uk).

VISIT OF DR D. LENZ

Dr Daniel Lenz (TU Chemnitz), supported by an LMS Scheme 2 grant, will give the following lectures during his visit to Leicester, Bangor and Cardiff:

- 25 September, Department of Mathematics and Computer Science, University of Leicester, "Aperiodic subshifts and Schrödinger operators associated to quasicrystals"
- 28 September, School of Informatics, University of Wales, Bangor, "An order based construction of groupoids from inverse semigroups"
- 3 October, School of Mathematics, Cardiff University, "Inverse semigroups and graph groupoids"

For further information contact the local organizers John Hunton in Leicester (e-mail: jrh7@mcs.le.ac.uk), Mark Lawson in Bangor (e-mail: m.v.lawson@bangor.ac.uk), and Johannes Kellendonk in Cardiff (e-mail: kellendonkj@cardiff.ac.uk).

ZETA FUNCTIONS, RANDOM MATRICES AND QUANTUM CHAOS WORKSHOP

13 - 14 September 2001, Bristol

Workshop Speakers:

- Brian Conrey, American Institute of Mathematics, Palo Alto
- Yan Fyodorov, Department of Mathematics, Brunel University
- Kurt Johansson, Institutionen för Matematik, KTH, Stockholm
- Andrew Odlyzko, AT&T Labs
- Leonid Pastur, Centre de Physique Théorique de CNRS, Marseille
- Zeev Rudnick, Mathematics Department, Tel Aviv University
- Peter Sarnak, Department of Mathematics, Princeton University
- Nina Snaith, American Institute of Mathematics, Palo Alto
- Andreas Strombergsson, Matematiska Institutionen, Uppsala University
- Martin Zirnbauer, Institut für Theoretische Physik, University of Cologne

The workshop venue is to be confirmed. For further information contact Dr Jens Marklof, School of Mathematics, University of Bristol, University Walk, Bristol BS8 1TW (tel: 0117 928 8247, fax: 0117 928 7999, e-mail: j.marklof@bristol.ac.uk).

CONNECTIVITY BETWEEN MATHEMATICS AND ENGINEERING

UMIST, Manchester

Thursday 20 September 2001

This one-day meeting is intended to stimulate discussion and new interactive research between mathematicians and engineers, and in particular to investigate how new areas of mathematics can be used in engineering, and how problems in engineering can lead to new mathematical ideas.

- Professor John Ball FRS (Mathematics, University of Oxford)
Is rigorous mathematics relevant to engineering in the age of computing or a distraction?
- Dr Richard Craster (Mathematics, Imperial College)
The role of exact and asymptotic solutions in applications
- Professor Norman Fleck (Engineering, University of Cambridge)
Size effects in plasticity
- Professor Gero Friesecke (Mathematics, University of Warwick)
Bending of plates
- Professor Sergio Pellegrino (Engineering, University of Cambridge)
Closed-loop kinematics: applications to deployable radar structures
- Dr Jey Sivaloganathan (Mathematics, University of Bath)
Challenges in nonlinear elasticity
- Professor Michael Thompson FRS (Engineering, University College London)
From mathematical dynamics to engineering structures: the static-dynamic analogy
- Professor Gordon Williams FRS FREng (Engineering, Imperial College)
The vital role of analytical results
- Professor John Willis FRS (Mathematics, University of Cambridge)
Problems in the dynamics of fracture
- Professor Phil Withers (Materials Science Centre, UMIST)
New tools for empowering crack growth and lifting models

The event is organised by EPSRC (Mathematics and Engineering Programmes), the Institute of Mathematics and its Applications and the London Mathematical Society. The organisers are pleased to acknowledge additional financial support from The Royal Academy of Engineering and UMIST.

The audience is limited to approximately 120 and preference will be given to younger applicants. Those wishing to receive an invitation to the event should contact Professor S.R. Reid (tel: 0161 200 3848; e-mail: steve.reid@umist.ac.uk) at the Department of Mechanical, Aerospace and Manufacturing Engineering, UMIST, PO Box 88, Sackville Street, Manchester M60 1 QD.

MEETING TO MARK THE SIXTY-FIFTH BIRTHDAY OF PROFESSOR M.S.P. EASTHAM

A meeting on 26-27 July 2002 will be held at Gregynog Hall to mark Professor Eastham's sixty-fifth birthday. The meeting is supported by an LMS conference grant and the Department of Computer Science at Cardiff University and organised by Dr Malcolm Brown and Professor W. D. Evans (Cardiff). The invited speakers are:

- E.B. Davies, FRS (Kings College, London)
- W.D. Evans (Cardiff)
- W.N. Everitt (Birmingham)
- H. Kalf (Munich Germany)
- J.B. McLeod, FRS (Pittsburgh, USA)

The conference package, consisting of afternoon tea, dinner, overnight accommodation at Gregynog Hall (on 26 July), breakfast and lunch on 27 July is £60. For further information contact Dr Malcolm Brown or visit the website (<http://www.cs.cf.ac.uk/Gregynog02/birthdaymeet.html>).

BELFAST FUNCTIONAL ANALYSIS DAY 2001

The fourth annual Belfast Functional Analysis Day (BFAD) will be held on Saturday, 24 November 2001 in the Department of Pure Mathematics of Queen's University Belfast (David Bates Building, Room 1022). It is organised by Dr Martin Mathieu and Professor Anthony W. Wickstead as in the previous years.

The main speaker will be Professor Christian Skau (Trondheim) who will deliver two one-hour lectures on 'C*-Algebras and Dynamical Systems'. There also will be about seven contributed 30-minute talks by the participants. The meeting is supported by an LMS conference grant, in particular to support graduate students in their attendance. Therefore we strongly encourage research students who may be interested in participating to contact the organisers as early as possible. For further information contact Dr Mathieu (e-mail: m.m@qub.ac.uk).

LMS PROGRAMME AND CONFERENCE FUND

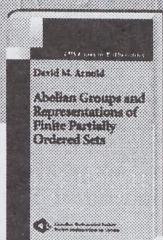
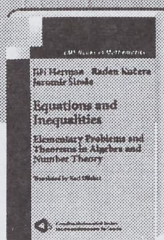
Programme Committee has recently awarded grants to support the following conferences and meetings. These are open to members. If you wish to attend, or would like more information, please contact the organiser.

Date/Venue	Title	Organiser/e-mail
17-21 Sept 2001 Leicester	Algebra and Topology Workshop	N.J. Snashall njs5@mcs.le.ac.uk
21 Sept 2001 Royal Society of Edinburgh	Scottish Computational Mathematics Symposium 2001	D.B. Duncan d.b.duncan@ma.hw.ac.uk
21-22 Sept 2001 Sussex	Partial Differential Equations and Function Spaces Conference	A.V. Sobolev a.v.sobolev@sussex.ac.uk
9 Nov 2001 Leicester	Leicester-Loughborough Spectral Day	M. Marletta mm7@mcs.le.ac.uk
24 Nov 2001 Queen's University Belfast	Belfast Functional Analysis Day 2001	M. Mathieu m.m@qub.ac.uk

CMS Books in Mathematics

Edited by Jonathan M. Borwein and Peter Borwein

New Series



J. Herman, R. Kučera, J. Šimša

Equations and Inequalities

Elementary Problems and Theorems
in Algebra and Number Theory

While it emphasizes some methods that are not usually covered in beginning university courses, the book nevertheless teaches techniques and skills which are useful beyond the specific topics covered here. With approximately 330 examples and 760 exercises.

„I have nothing but praise for this book, and I can't imagine a mathematician who wouldn't want to own it.“

J. Wimp, Mathematical Intelligence, Vol. 23/1, 2001

2000. XII, 344 pp. Hardcover **DM 149,90**; £ 55,50; FF 605,-;
sFr 129,-; Lit. 177.140 ISBN 0-387-98942-0

J.M. Borwein, A.S. Lewis

Convex Analysis and Nonlinear Optimization

Theory and Examples

This book provides a concise, accessible account of convex analysis and its applications and extensions, for a broad audience. It can serve as a teaching text, at roughly the level of first year graduate students, since the main body of the text is self-contained, with each section rounded off by an often extensive set of optional exercises.

2000. X, 273 pp. Hardcover **DM 149,90**; £ 55,50; FF 605,-;
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D. Arnold

Abelian Groups and Representations of Finite Partially Ordered Sets

An exposition of connections between representations of finite partially ordered sets and abelian groups. Emphasis is placed throughout on classification, a description of the objects up to isomorphism, and computation of representation type, a measure of when classification is feasible.

2000. XII, 244 pp. Hardcover **DM 169,90**; £ 62,50; FF 685,-;
sFr 146,50; Lit. 200.780 ISBN 0-387-98982-X

F.R. Deutsch

Best Approximation in Inner Product Spaces

2001. XV, 338 pp. Hardcover **DM 149,90**; £ 55,50; FF 605,-;
sFr 129,-; Lit. 177.140 ISBN 0-387-95156-3

M. Fabian, P. Habala, P. Hajek, V. Montesinos
Santalucia, J. Pelant, V. Zizler

Functional Analysis and Infinite-Dimensional Geometry

2001. IX, 451 pp. Hardcover **DM 169,90**; £ 62,50; FF 685,-;
sFr 146,50; Lit. 200.780 ISBN 0-387-95219-5

G.M. Phillips

Two Millennia of Mathematics

From Archimedes to Gauss

2000. XII, 223 pp. Hardcover **DM 109,90**; £ 40,50; FF 443,-;
sFr 95,-; Lit. 129.880 ISBN 0-387-95022-2



Canadian Mathematical Society
Société mathématique du Canada

www.springer.de/math/



Springer

BAMC 2003

The British Applied Mathematical Colloquium (BAMC) 2003 will be held at the University of Southampton on 7 - 10 April 2003. The invited speakers are:

- M.E Cates (Edinburgh)
- P. Clavin (CNRS, Marseille)
- O.E. Jensen (Nottingham)
- B. Keyfitz (Houston, Texas)
- J. Keller (Stanford)
- J. Sethian (Berkeley)
- J-M. Vanden-Broeck (UEA)

The organising committee are Professor A.A. Wheeler (Chair), Professor A.D. Fitt (Secretary) and Dr C.J. Howls (Treasurer). For further information e-mail (bamc@maths.soton.ac.uk) or visit the web (<http://www.maths.soton.ac.uk/bamc>). Details of minisymposia will be announced in due course on this website; suggestions for minisymposia topics are also welcome.

ANALYTIC NUMBER THEORY MEETING

A one-day meeting in honour of Richard Hall, who retired at Easter this year, will be held to celebrate his mathematical work at the University of York on Friday 5 October. The speakers will be: Heini Halberstam, Walter Hayman FRS, Roger Heath-Brown FRS, Christopher Hooley FRS, Gerald Tenenbaum and Bob Vaughan FRS.

The meeting will start at 11.30 and continue until 6.00. There will be a dinner in the evening. If you wish to attend, please contact Tony Sudbery at the Department of Mathematics, University of York, Heslington, York YO10 5DD (e-mail: as2@york.ac.uk).

ROYAL SOCIETY RESEARCH PROFESSORSHIP

Professor Simon K. Donaldson, FRS, of Imperial College, London has been awarded a Royal Society Research Professorship.

JOINT BRITISH MATHEMATICAL COLLOQUIUM AND BRITISH APPLIED MATHEMATICAL COLLOQUIUM 2002

The joint British Mathematical Colloquium and British Applied Mathematical Colloquium 2002 will be held at the University of Warwick on 7-12 April 2002. The plenary speakers are:

- J. Birman (Cumbria)
- J. Chapman (Oxford)
- I. Daubechies (Princeton)
- P. Diaconis (Stanford)
- R. Karp (UC Berkeley & International Computer Science Institute, Berkeley)
- D. Mumford (Brown)
- G.C. Papanicolaou (Stanford University)
- P. Sarnak (Princeton)
- N. Trefethen (Oxford)
- V. Zakharov (Landau Institute Moscow & Arizona)

The organising committee are David Mond, Robert McKay, Colin Rourke and Andrew Stuart. For further information contact Peta McAllister, Business Manager, Mathematics Research Centre, University of Warwick, Coventry CV4 7AL (tel: 024 7652 4403, fax: 024 7652 3548, e-mail: peta@maths.warwick.ac.uk) or visit the website (<http://www.maths.warwick.ac.uk/>).

DAPHNE JACKSON FELLOWSHIP FOR RETURNING MATHEMATICIANS

Mathematicians taking a career break now have a chance to return to an appropriate career through a Daphne Jackson Fellowship sponsored by the London Mathematical Society.

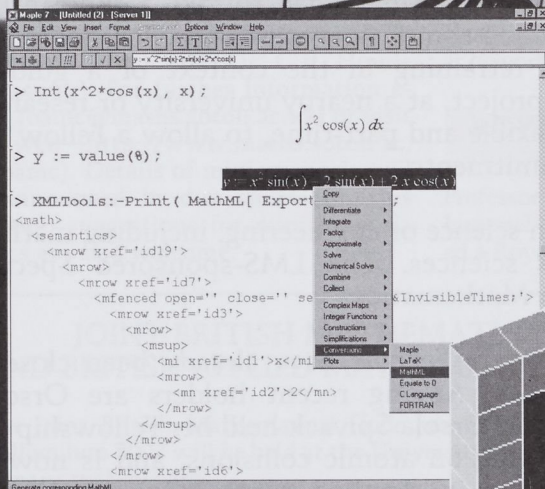
Daphne Jackson Fellowships are awarded to well-qualified and highly motivated women or men who have had to take a substantial career break because of family commitments. A Fellow carries out a two-year programme of retraining in the context of a guided research or development project, at a nearby university or research centre. Fellowships are flexible and part-time, to allow a Fellow to meet ongoing family commitments.

All Fellowships are held in science or engineering, including mathematics and information sciences. The LMS-sponsored Special Fellowship will be held in Mathematics.

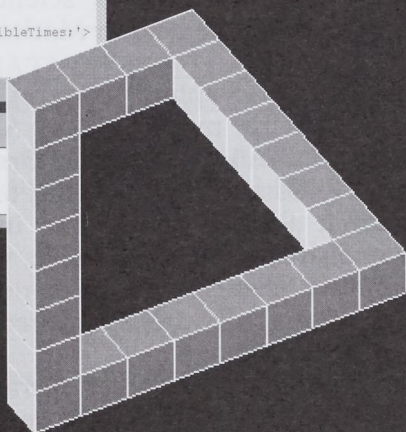
A number of Daphne Jackson Fellows have already been closely involved with mathematics. Among recent holders are Orsola Spivack and Alice Miller. Dr Orsola Spivack held her Fellowship in DAMTP, Cambridge, working on atomic collisions, and is now a Research Fellow and Tutor in Applied Mathematics at Lucy Cavendish College, Cambridge, while Dr Alice Miller is working in Computer Science at Glasgow on modelling and analysing telecommunications software, sponsored by the EPSRC.

The Daphne Jackson Trust operates a rolling programme of awards, without specific deadlines: if you wish to apply, the sooner, the better! Further information about Daphne Jackson Fellowships can be found on the web (<http://www.DaphneJackson.org>). If you are interested in applying, contact Mrs Jennifer Woolley, Trust Manager, The Daphne Jackson Trust, Department of Physics, University of Surrey, Guildford GU2 7XH (tel: 01483 879166, fax: 01485 876781, e-mail: DJMFT@surrey.ac.uk).

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MATHEMATICAL BIOLOGY

LMS/EPSRC Short Course

University of Manchester, 6 - 11 January 2002

Organiser: Matthias Heil

Over the past decades, mathematics has increasingly (and successfully) been used for the modelling and analysis of biological and physiological problems. Mathematical Biology has thus developed into an active, varied and inherently interdisciplinary field of research. Major advances have been made, for example, in the modelling of disease spreading and tumour growth, in the analysis of biological pattern formation and in physiological fluid mechanics. The complexity of biological and physiological systems makes them a rich source of challenging problems whose analysis often stimulates the development of novel mathematical techniques.

This short course is aimed at postgraduate students in Mathematics and will provide an introduction to four main research areas in Mathematical Biology.

- Opening Lecture: **Bioconvection**
Professor T.J. Pedley, FRS (University of Cambridge)
- Course I: **Modelling biological pattern formation**
Professor Philip Maini (University of Oxford)
- Course II: **Biological fluid mechanics**
Dr Matthias Heil (University of Manchester)
- Course III: **Modelling solid tumour growth**
Dr Helen Byrne (University of Nottingham)

The material presented will be accessible to first year research students. All courses will be supplemented by tutorials and discussions.

The registration fee is £60, which for all UK-based research students includes the cost of course accommodation and meals. 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 Research Training and Support Grant that is paid to universities with each studentship award (or from the Doctoral Training Account in the case of first-year students).

Application forms may be obtained from Frances Spoor, London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS
(e-mail: spoor@lms.ac.uk) or from the LMS website
http://www.lms.ac.uk/activities/research_meet_com/short_course/08_app.html.

Numbers will be limited and those interested are advised to make an early application. The closing date for applications will be **26 October 2001**.

PARTIAL DIFFERENTIAL EQUATIONS AND FUNCTION SPACES CONFERENCE

The University of Sussex is holding a conference on Partial Differential Equations and Function Spaces on 21-22 September 2001. The conference supported by an LMS conference grant, is organised in honour of the 70th birthday of David Edmunds. The invited speakers are:

- J.M. Ball, FRS (Oxford)
- E.B. Davies, FRS (King's College, London)
- W.D. Evans (Cardiff)
- L.E. Fraenkel (Bath)
- L.I. Hedberg (Linköping)
- V. Maz'ya (Linköping)
- Yu. Netrusov (Bristol)
- J.F. Toland, FRS (Bath)
- H. Triebel (Jena).

For further information visit the website (<http://www.maths.susx.ac.uk/Staff/AVS/conference.html>) or contact the organisers; E. Shargorodsky and A.V. Sobolev (e-mails: e.shargorodsky@sussex.ac.uk, a.v.sobolev@sussex.ac.uk). There are funds available to contribute to the expenses of research students who wish to attend the meeting. Please contact the organisers for details.

EDINBURGH MATHEMATICAL SOCIETY MEETINGS

The following meetings have been arranged for the Edinburgh Mathematical Society in Session 2001-2002:

2001

- | | |
|-------------------------|--|
| 19 Oct (Edinburgh, AGM) | Presidential Address, Professor J. Howie |
| 16 Nov (Glasgow) | Dr W.W. Crawley-Boevey |
| 7 Dec (Heriot-Watt) | Professor M.A.J. Chaplain |

2002

- | | |
|---------------------|----------------------|
| 18 Jan (Edinburgh) | Dr I.B. Leader |
| 15 Feb (Edinburgh) | Professor S. Wiggins |
| 8 March (Dundee) | Professor E. Suli |
| 3 May (Aberdeen) | Dr D. Notbohm |
| 7 June (St Andrews) | Dr G.M. Stallard |

For further information contact Philip Heywood, Honorary Meetings Secretary, Edinburgh Mathematical Society, Department of Mathematics and Statistics, Edinburgh University, James Clerk Maxwell Building, The King's Buildings, Mayfield Road, Edinburgh EH9 3JZ (e-mail: philip@maths.ed.ac.uk).

FUTURE BMCs

BMC 2003 is to be held in Birmingham from 7 - 10 April. For further details contact Professor R.A. Wilson, School of Mathematics and Statistics, The University of Birmingham, Edgbaston, Birmingham B15 2TT (e-mail: r.a.wilson@bham.ac.uk).

BMC 2004 is to be held at Queen University Belfast. For further details contact Professor D.H. Armitage (e-mail: d.armitage@qub.ac.uk).

VISIT OF PROFESSOR J-P. KAHANE

Professor Jean-Pierre Kahane (Orsay) will give the following lectures in Oxford:

- Tuesday, 16 October, at 5.00 pm in the Mathematical Institute, "The Birth and Posterity of the Lebesgue Integral"
- Wednesday, 17 October, at 5.15 pm in the Maison Française, "The Evolution and Future of Mathematics Teaching in France"

Professor Kahane's visit is jointly funded by the Mathematical Institute and the Maison Française. For further information contact David Edwards at the Oxford Mathematical Institute (e-mail: edwardsd@maths.ox.ac.uk).



THE UNIVERSITY
of LIVERPOOL

DEPARTMENT OF MATHEMATICAL SCIENCES
LECTURESHIP IN PURE MATHEMATICS

Initial salary within the range £20,267 - £32,215 pa

Applications are invited for this post, which is tenable from 1 January 2002 or a date to be arranged. Candidates should have research strengths in some branch of Pure Mathematics and be committed to high-quality teaching. The Division of Pure Mathematics has been given the highest numerical grade in every Research Assessment Exercise to date.

Informal enquiries to Professor P J Giblin, Head of Department of Mathematical Sciences, on 0151-794-4053, email: pjgiblin@liv.ac.uk, or Dr E V Flynn, Head of Pure Mathematics, email: evflynn@liv.ac.uk The Division's website is at <http://www.liv.ac.uk/maths/PURE>

Quote Ref: B/636

Closing Date: 26 October 2001

Further particulars and details of the application procedure should be requested from the Director of Personnel, The University of Liverpool, Liverpool L69 3BX on 0151 794 2210 (24 hr answerphone) or via email: jobs@liv.ac.uk
Web site at <http://www.liv.ac.uk>

THE GLASGOW MATHEMATICAL JOURNAL
TRUST FUND

Grants in support of Scottish Mathematics

The fund aims to support mathematical projects which have demonstrable benefit to mathematics in Scotland. This includes conferences, workshops and summer schools in Scotland, lecture tours in Scottish universities and the publication of lecture notes or other monographs associated with such activities.

Grants of up to £1,000 are available.

There will be two rounds of awards each year. Closing dates for application are the last days of October and January. It is hoped that confirmation of awards will be made within about three months from these dates. Further information and application forms are available from the address below or at the URL (<http://www.maths.gla.ac.uk/>).

Applications should be made to: Dr C. Athorne, Secretary G.M.J. Trust Fund, Department of Mathematics, University of Glasgow, University Gardens, Glasgow G12 8QW (tel: 0141 330 5176, e-mail: gmj@maths.gla.ac.uk).

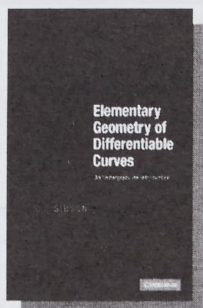
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Isaac Chavel

This advanced introduction discusses inequalities in Euclidean and Riemannian geometry, methods of classical differential geometry and elementary modern geometric measure theory, discretization of smooth spaces, and the influence of isoperimetric inequalities on heat diffusion on Riemannian manifolds. The result is an introduction to the rich tapestry of ideas and techniques of isoperimetric inequalities, a subject that has its beginnings in classical antiquity and which continues to inspire fresh ideas in geometry and analysis.

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Cambridge Tracts in Mathematics, 145

Surveys in Combinatorics, 2001

J.W. P. Hirschfeld

This valuable reference contains the proceedings of the 18th British Combinatorial Conference. The papers contained here are from the invited speakers and are thus of a quality befitting the event. There is also a tribute to Crispin Nash-Williams, past chairman of the British Combinatorial Committee. The diversity of the subjects covered means that this will be a valuable reference for researchers in combinatorics. However, graduate students will also find much here that could be of use for stimulating future research.

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|---------------|---|
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<i>Symplectic reflection algebras and Calogero-Moser systems</i> |
| 14.30 - 15.20 | G. Wilson (Imperial)
<i>Integrable systems and noncommutative projective geometry</i> |
| 15.30 - 16.10 | Tea |
| 16.10 - 17.00 | A. Nakayashiki (Kyushu)
<i>Affine Jacobians and integrable systems</i> |
| 17.10 - 18.00 | O. Chalykh (Loughborough)
<i>Algebraic integrability, bispectrality and Macdonald conjectures</i> |
| 18.15 | Reception |

Anyone interested is welcome to attend. Please let Tracey Andrew at the Institute know by 20 November 2001 if you intend to come, to help us plan for lunch (tel: (01223) 335984; fax: (01223) 330508; e-mail t.andrew@newton.cam.ac.uk). There are limited funds available to assist research students to attend, please apply by **20 November 2001** to Tracey Andrew at the Institute. Scientific enquiries may be addressed to Professor A.P. Veselov (e-mail: A.P.Veselov@lboro.ac.uk). For further information visit the website (<http://www.lboro.ac.uk/about/map/map1.html>).

THE SMITH INSTITUTE AND THE FARADAY PARTNERSHIP IN MATHEMATICS

The Faraday Partnerships were proposed by the Government in order to strengthen two-way links between academia and a particular industrial sector. The Mathematics Partnership (unusual in that it covers the whole subject) is administered by the Smith Institute using £1.2M from DTI, £1.0M from EPSRC and a planned £2.5M from other sources over the 4-year period 2000-2004. The Smith Institute is an independent, not-for-profit company founded in 1993 to nurture long-term scientific research, initially working with large companies and government organisations; for example, one early research programme in wave scattering by stealthy objects opened up new areas of exponential asymptotics. The Faraday Partnership has allowed the Institute to reach a wide range of companies, including small and medium-sized enterprises (SMEs), and to offer a broad range of services, particularly in education and training. The Director, Robert Leese, is advised by a Scientific Committee chaired by John Ockendon (OCIAM) and an Advisory Board chaired by Keith Winters (AEA Technology) - the author is a member of the latter. Dr Leese has a team of three Technology Translators who oversee the collaboration between academic departments and industry and help steer research so that the results are potentially exploitable.

The July 2000 Newton Institute programme "Free Boundary Problems in Industry" revealed a vast number of potential research problems. This prompted the Faraday Partnership to identify other generic themes and, so far, most of the potential projects have come from a series of two-day workshops held during the last year, which brought together industrialists and academics working in relevant areas. These have covered Applications in the Food Industry, Weather Forecasting for Risk Management, Resource Management in

Distributed Environments, Guided Wave Photonics, Electromagnetic Compatibility and Tissue Engineering.

Four CASE studentships began in the year ending March 2001: Modelling Confectionery Manufacture, Sorting Food using Targeted Jets, Random Dynamical Systems in Digital Communication and Radio Channel Assignment. Two postdoctoral research positions have been established at LSE on market-based resource allocation and at Cardiff on the design of dynamic networks. This year, in addition to the three earmarked Faraday CASE studentships, EPSRC has made a further six available to first-time collaborating companies and there is ring-fenced funding for up to ten two-year postdoctoral positions. All proposals are subject to the normal EPSRC peer review. Potential problems include "the mathematics of mooing" (measuring milk flow), homogenisation in electromagnetic compatibility (ranging from wiring harnesses to cars and aircraft), violent mechanics (e.g. shaped charge stabilisation and shrapnel modelling), downscaling of weather forecasts (e.g. prediction of electricity output from wind farms) and the baking of bread crusts and crumpets. As an example, the Electro-magnetic Compatibility project will involve the physical modelling of wave propagation through tangles of circuit boards, capacitors and wires and offers the opportunity to apply topological concepts.

The Teaching Companies Scheme places a graduate in a company for two years under academic supervision in order to bring new technical expertise into the company. For an SME, the company pays 40% of the costs and the Teaching Companies Directorate 60%; academic supervision should amount to half a day per week. Two TCS programmes (both with SMEs) are in place on Distributed Simulation and on Financial Engineering and a third is

planned on creating an optimisation environment for financial applications.

Another Faraday activity is postgraduate training, and it is intended to establish up to five pilot schemes over the next year, each with about £10K of funding. Any MSc which could involve industrially-driven projects is a potential candidate for Faraday resources. Three schemes are currently in preparation: industrial participation in the Bath MSc in Modern Applications of Mathematics, the development of industrial case studies in forecasting and time series at LSE and the development of course material on numerically intensive computing for finance to be included in the Oxford Masters-level programmes in either Finance or Software Engineering.

The Faraday Partnership has generated a very diverse mix of projects involving industrial partners of all sizes. The process is ongoing, and it is hoped that it will lead to yet more widespread collaboration between mathematics departments and industry. Further details may be obtained from the website (www.smithinst.ac.uk).

Peter Covey-Crump

ALGEBRA AND TOPOLOGY WORKSHOP

An Algebra and Topology Workshop will be held at the University of Leicester from 17-21 September 2001. The aim of the meeting is to bring together researchers in a variety of algebraic and topological fields to pool knowledge, encourage interaction and disseminate methods, techniques and problems, and will in part focus on polynomial functors. All those interested, including research students, are encouraged to come. For more details visit the website (<http://www.mcs.le.ac.uk/research/pure/AT2.html>) or contact one of the organisers Nicole Snashall, Steffen Koenig, John Hunton via e-mail (algtop@mcs.le.ac.uk). This meeting is supported by an LMS conference grant.

LEICESTER - LOUGHBOROUGH SPECTRAL DAY

A one-day meeting on spectral problems and related topics will be held at the Department of Mathematics and Computer Science, University of Leicester on Friday 9 November 2001. The speakers are:

- Dr Malcolm Brown (Cardiff University)
- Professor Slava Kurylev (Loughborough University)
- Dr Michael Levitin (Heriot-Watt University)
- Professor Tony Pritchard (Warwick University)
- Dr Sasha Pushnitski (Loughborough University)
- Professor Andrei Shkalikov (Moscow State University)
- Dr Christine Tretter (University of Leicester)

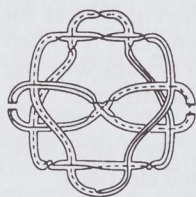
There are funds available to contribute part to the expenses of research students attending the meeting. Requests for funding should include an estimate of expenses and the e-mail addresses of the student and of the student's supervisor. For further details contact Marco Marletta (e-mail: mm7@mcs.le.ac.uk). The meeting is supported by an LMS conference grant.

ARF LECTURES

Members of the Department of Mathematics at Middle East Technical University, Ankara and Turkish Mathematics Foundation have founded an annual lecture series to commemorate Cahit Arf's memory. The first of these lectures will take place in Ankara, Middle East Technical University on 6 October. An International Advisory Board consisting of M.G. Ikeda, R. Langlands and P. Roquette have decided that this year's Arf speaker should be Professor Gerhard Frey of Essen University. The title of this year's Arf Lecture is "Bauer Groups and Data Security". For further information contact Safak Alpay (e-mail: safak@metu.edu.fr).



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RECORDS OF PROCEEDINGS AT MEETINGS

GENERAL MEETING

held on *Friday 22 June 2001* at Birkbeck College, London. About 100 members and visitors were present for all or part of the meeting. The meeting began at 5.00 pm, with Professor J.T. STUART, FRS, in the Chair. On a motion proposed by Council, it was agreed to replace the current By-Law 1.4 with the following text:

'Officers of the Society shall be elected for one-year terms in accordance with Statute 24. If an Office becomes vacant during a year, Council shall take the advice of Nominating Committee before filling it in accordance with Statute 31 and By-Law II.4. No President shall hold that office for more than two years consecutively. None of the other Officers shall hold any Office or combination of Offices for more than ten years consecutively unless the extension beyond ten years is to permit the tenure of the Presidency. However, after a gap of one year anyone who has completed such a period of consecutive service may again stand for election.'

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

After the General Meeting an

ORDINARY MEETING

of the Society was held with Professor J.T. STUART, FRS in the Chair. Fifteen people were elected to Ordinary Membership: A. Baranov, M.V. Bartuccelli, A. Daletskii, C. Gundlach, P.J. Harris, R. Illsley, A.Y. Lazarev, S. Mohseni Rajaei, V. Moroz, E. Nardi, R.S. Rehal, G.A. Rogerson, N.S. Skantzos, C. Soteriou, B.J. Totaro; one person was elected to Associate Membership: T.W. Dawson; and two people were elected to Reciprocity Membership: M. Leok (Amer. Math. Soc.), G. van der Geer (Amer. Math. Soc.).

Four members signed the book and were admitted to the Society. The minutes of the Proceedings at the Society Meetings held in March, May and June 2000 were signed as correct records.

The President, on Council's behalf, proposed that Sir Andrew Wiles and Professor Cathleen Synge Morawetz be elected to Honorary Membership of the Society. This was approved by acclaim. The President read short versions of the citations to be published in the *Bulletin*.

The President announced the awards of the De Morgan Medal to Professor J.A. Green, the Senior Whitehead Prize to Professor D.W. Moore, of Imperial College, London, the Berwick Prize to Dr M. du Sautoy, of Oxford University, and Whitehead Prizes to Dr M.L. McQuillan of Oxford University, to Dr N. Skorobogatov of Imperial College, London, to Dr V. Smyshlyaev of Bath University and to Professor J.R. King of Nottingham University. The President read short versions of the citations to be published in the *Bulletin*.

The Hardy Lecture was then given by Professor P. Diaconis on 'G.H. Hardy and Probability???'

MATHEMATICS IN MEDICINE STUDY GROUP

The second Mathematics in Medicine Study Group will be held on 10-14 September 2001 at the University of Nottingham. This study group aims to find new ways of solving medical problems through the use of mathematical models. At the start of the week, clinicians and biomedical scientists will present five medical problems to the group. The mathematicians, along with the scientists, will then spend the week developing mathematical models of the problems. Solutions will be presented at the end of the week and written reports will be prepared after the meeting.

For further information contact Professor Oliver Jensen, Division of Theoretical Mechanics, Office: Pope-B14, School of Mathematical Sciences, University of Nottingham, University Park, Nottingham NG7 2RD (tel: 0115 951 3866, fax: 0115 951 3837, e-mail: Oliver.Jensen@nottingham.ac.uk) or visit the website (<http://www.maths.nottingham.ac.uk/Cmm/MMSG2001>).

HOUSEHOLDER SYMPOSIUM XV

The Householder Symposium on Numerical Linear Algebra will be held 17-21 June 2002 at the Peebles Hydro Hotel, Scotland, about 22 miles southwest of Edinburgh. This meeting is the fifteenth in a series, previously called the Gatlinburg Symposia. The name honours Alston S. Householder, one of the pioneers in numerical linear algebra and organizer of the first four meetings. The meeting has traditionally been held in an isolated location and is very informal in style. Each attendee is given the opportunity to present a talk, but a talk is not mandatory. The format of the meeting includes scheduled presentations during the day and more informal evening sessions that are organized electronically shortly before the meeting. Spirited discussion is encouraged.

The Programme Committee consists of: Angelika Bunse-Gerstner (Bremen), Tony Chan (Los Angeles), Chandler Davis (Toronto), Nick Higham (Manchester, Chair), Dianne O'Leary (Maryland), Michael Overton (Courant Institute), Pete Stewart (Maryland), Henk van der Vorst (Utrecht), Paul Van Dooren (Louvain-la-Neuve), Charles Van Loan (Cornell).

At the meeting, the eleventh Householder prize will be awarded for the best thesis in numerical algebra written since 1 January 1999. It is hoped that the meeting will be attended by recent entrants into numerical linear algebra as well as more experienced researchers. We encourage attendance by core numerical linear algebra researchers, matrix theoreticians, and people in applications such as optimization, signal processing, control, etc.

The Programme Committee welcomes your contribution. The meeting facility holds only 125 people, however, so attendance may need to be limited. The organisers are seeking funding to provide financial assistance to recent PhDs and others who might need it.

For full consideration, the committee must receive your abstract by **11 December 2001**. Information concerning the application process may be found at the URL (<http://www.maths.strath.ac.uk/~matrix/>). Please use the format provided at the website. The committee expects to complete the list of attendees and scheduled presentations by 1 February 2002.

For further information about local arrangement contact Philip Knight (e-mail: p.a.knight@strath.ac.uk), Alison Ramage (e-mail: A.Ramage@strath.ac.uk), or Andy Wathen (e-mail: Andy.Wathen@comlab.ox.ac.uk). Other questions can be directed to a general e-mail (e-mail: house-request@ma.man.ac.uk). The meeting is financially supported by the Edinburgh Mathematical Society, the Glasgow Mathematical Journal Trust Fund, the London Mathematical Society, the Royal Society of Edinburgh and the Scottish Borders Council.

HOUSEHOLDER AWARD XI

Nominations are solicited for the Alston S. Householder Award XI (2002). The award will be presented to the author of the best dissertation in numerical algebra submitted by the recipient of a PhD earned between 1 January 1999 and 31 December 2001.

The term numerical algebra is intended to describe those parts of mathematical research that have both algebraic aspects and numerical content or implications. Thus, for example, the term covers linear algebra that has numerical applications and the algebraic aspects of ordinary differential, partial differential, integral, and nonlinear equations. To qualify, the dissertation must have been submitted to fulfill requirements for a degree at the level of a United States PhD. Candidates from countries in which a formal dissertation is not normally written at that level may submit an equivalent piece of work.

The Householder Award, given every three years, was established at the 1969 Gatlinburg Symposium (now renamed the Householder Symposium) to recognize the outstanding contributions of Alston S. Householder, 1904-1993, to numerical analysis and linear algebra.

Entries will be assessed by an international committee consisting of James Demmel (University of California, Berkeley), Ludwig Elsner (University of Bielefeld), Volker Mehrmann (TU Berlin), Charles Van Loan (Cornell University) and Olof Widlund (Courant Institute, New York University).

The candidate's sponsor (the supervisor of the candidate's research) should submit five copies of the dissertation (or qualifying work), together with an appraisal by the sponsor and at least one additional letter of recommendation supporting the nomination, by **15 February 2002**, to Professor Ludwig Elsner, Fakultät für Mathematik, Universität Bielefeld, Postfach 10 01 31, 33501 Bielefeld, Germany (e-mail: elsner@Mathematik.Uni-Bielefeld.DE).

The award will be presented at the Householder Symposium XV, to be held 17-21 June 2002 at the Peebles Hydro Hotel, Scotland. For further information visit the website (<http://www.maths.strath.ac.uk/~matrix/>). Candidates on the short list will receive invitations to the meeting.

VISIT OF PROFESSOR I. TAIMANOV

Professor Iskander Taimanov from the Siberian Branch of the Russian Academy of Sciences in Novosibirsk, Russia, will be visiting the UK from 16 September until 20 October, supported by an LMS Scheme 5 grant. He will give seminars at Hull (J. Berndt), Oxford (N.J. Hitchin FRS), Bath (F.E. Burstall) and Imperial College (A.S. Fokas). For further information contact Jurgen Berndt, Department of Mathematics, University of Hull, Hull HU6 7RX (tel: 01482 46 5149, fax: 01482 46 6218, e-mail: j.berndt@hull.ac.uk).

COMPUTATION AND ANALYTIC PROBLEMS IN SPECTRAL THEORY WORKSHOP

An EPSRC Gregynog Workshop on Computation and Analytic Problems in Spectral Theory is to be held on the 21-26 July 2002. The venue will be Gregynog Hall, which is a conference centre owned by the University of Wales and situated in the mid-Wales countryside, near Newtown, Powys. The principal speakers are:

- J.M. Ball, FRS (Oxford)
- B. Kawohl (Köln, Germany)
- J.J. Manfredi (Pittsburgh, USA)
- J. Nachman (Rochester, USA)
- L.N. Trefethen (Oxford)

For further information contact Dr Malcolm Brown, Computer Science, Cardiff University, PO Box 916, Cardiff CF24 3XF (e-mail: Malcolm@cs.cf.ac.uk) or visit the website (<http://www.cs.cf.ac.uk/Gregynog02/>).

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THE FERRAN SUNYER I BALAGUER PRIZE

The 2001 Ferran Sunyer i Balaguer prize has been awarded to Professor Ian N. Stewart, University of Warwick and Professor Martin Golubitsky for their monograph *The Symmetry Perspective: From Equilibrium to Chaos in Phase Space and Physical Space*.

Each year in honour of the memory of Ferran Sunyer i Balaguer, the Institut d'Estudis Catalans awards an international mathematical research prize bearing his name. This prize was awarded for the first time in April 1993. The competition is open to all mathematicians, subject to the following conditions:

- The prize will be awarded for a mathematical monograph of an expository nature presenting the latest developments in an active area of research in Mathematics, in which the applicant has made important contributions.
- The monograph must be original, written in English, and of at least 150 pages. The monograph must not be subject to any previous copyright agreement. In exceptional cases, manuscripts in other languages may be considered.
- The prize, amounting to 10,000 euros, is provided by the Ferran Sunyer i Balaguer Foundation. The winning monograph will be published in Birkhäuser Verlag's series "Progress in Mathematics", subject to the usual regulations concerning copyright and author's rights.
- The submission of a monograph implies the acceptance of all of the above conditions.
- The name of the prize-winner will be announced in Barcelona in April 2002.

The winner of the prize will be proposed by a Scientific Committee consisting of: H. Bass (University of Michigan), A. Córdoba (Universidad Autónoma de Madrid), W. Dicks (Universitat Autònoma de Barcelona), P. Malliavin (Université de Paris VI) and A. Weinstein (University of California at Berkeley).

Monographs should preferably be typeset in TEX. Authors should send a hard copy of the manuscript and two disks, one with the DVI file and one with the PS file (PostScript), and enclosing an accompanying letter to the Ferran Sunyer i Balaguer Foundation. Submissions should be sent before **1 December 2001** to the following address: Centre de Recerca Matemàtica (IEC), Fundació Ferran Sunyer i Balaguer, Apartat 50, E-08913 Bellaterra, Spain (e-mail: crm@crm.es). For further information on the Ferran Sunyer i Balaguer Foundation, visit the website (<http://www.crm.es/info/ffsb.htm>).

THE FIELDS INSTITUTE SET THEORY AND ANALYSIS

The Fields Institute, Canada, will host a thematic programme devoted to fostering the interaction between Set Theory and Analysis from September 2002 through to December 2002.

The programme will include at least two short, but intense, thematic workshops. One will focus on set theoretic techniques in the theory of Banach spaces and another will concentrate on Borel relations. The program will also incorporate, whenever possible, mini-courses intended to bring graduate students quickly to the frontiers of knowledge on particular subjects.

Among those who have already indicated their interest in participating for at least part of the semester are: T. Bartoszyński, M. Foreman, D. Fremlin, G. Godefroy, G. Hjorth, A. Kechris, M. Laczkovich, R. Laver, D. Mauldin, A. Miller, N. Kalton, E. Odell, J. Pawlikowski, H. Rosenthal, S. Shelah, S. Solecki, S. Todorćević, H. Woodin.

To be informed of when registration is open and to receive updates about the Set Theory and Analysis Programme please subscribe to the mail list (www.fields.utoronto.ca/maillist). The organising committee are: Alan Dow, Alexander Kechris, Miklos Laczkovich, Claude Laflamme, Juris Steprāns and Stevo Todorćević.

LTSN MATHS, STATS & OR NETWORK: PROJECTS IN MATHEMATICS

The LTSN Mathematics, Statistics & OR Network offers funding for a limited number of projects investigating learning and teaching in mathematics to commence in November 2001. The Network particularly encourages proposals addressing one of the following topics:

Encouraging Independent Learning - what exactly is independent learning and how do we recognise it? Are there effective mechanisms for achieving this much quoted goal?

Effective On-line Learning - there is much already written on on-line delivery, but is there evidence based support for on-line interactive media promoting learning and understanding?

The Traditional Lecture - features prominently throughout the QAA reports. It also attracts much critical comment. How can it be used to best effect and how can one overcome the problems and pitfalls?

Projects - are an increasing feature on the undergraduate landscape. Can they be effective and efficient for a large cohort? Are there ground rules for the good management of projects across the MSOR spectrum?

Other well-argued proposals will be considered, but preference will be given to applications that address the topics listed above. Project descriptions will be expected to:

- summarise the aims, timescale and expected outcomes of the project;
- have relevance to a wide cross-section of the practitioners in the disciplines;
- include plans showing collaboration with the Network in the dissemination of the results of the project.

Up to £5000 is available for any one project, and collaborative applications are welcome. Successful applicants will be notified in October 2001. Applications, on no more than four sides of A4, should be sent by **Monday 1 October 2001** to Dr J.

Kyle, LTSN Maths, Stats & OR Network, The University of Birmingham, Edgbaston, Birmingham B15 2TT (tel: 0121 414 6604, e-mail: j.kyle@bham.ac.uk).

SPECTRAL THEORY NETWORK CONFERENCE

This two day meeting will take place on 19-20 October 2001 in Room SR2 of the Trevithick Building, Newport Road, Cardiff. The following have agreed to give one hour talks at the meeting:

- R. Ashurov (Tashkent, Uzbekistan)
- C. Bennewitz (Lund, Sweden) *Inverse Spectral Theory for Left-Definite Sturm-Liouville Equations*
- V.I Burenkov (Cardiff) *Spectral Stability of the Neumann Laplacian*
- E.B. Davies, FRS (Kings College, London) *Computing Thresholds for Schrödinger Operators*
- W.D. Evans (Cardiff)
- M. Levitin (Heriot Watt) *Computational Experiments and Bounds on Low Eigen values of the Dirichlet Laplacian for Planar Domains*
- M. Marletta (Leicester) *The Spectrum of the Ekman Flow and Related Block-Operator Problems*
- Y. Netrusov (Bristol) to be confirmed
- D.B. Pearson (Hull) *Recent Developments in Value Distribution Theory for Solutions of the Schrödinger Equation*
- Pushnitski (Loughborough) *Trace Formulae for the Stark Operator*
- F. Rofe-Beketov (Kharkov, Ukraine) *Inverse Spectral Problems, the Non-Self Adjoint Differential Operators on the Half Axis by Generalised Spectral Matrix*
- A. Spence (Bath) *Inverse Iteration using Iterative Solves*
- B. Straughan (Durham) *Spectral Methods for Calculating Eigenvalues in Porous-Fluid Convection Problems.*

For further information contact Dr Malcolm Brown or visit the website (<http://www.cs.cf.ac.uk/STNetwork/conf1001.html>).

ICMS Instructional Conference on COMBINATORIAL ASPECTS OF MATHEMATICAL ANALYSIS

Edinburgh, 26 March to 4 April 2002

Organising committee

Tony Carbery (Edinburgh), Tim Gowers (Cambridge/Princeton), Vitali Milman (Tel Aviv), Mike Christ (UC Berkeley) and Terry Tao (UCLA).

Scientific programme

The aim of this 10-day course is to instruct young mathematicians in topics involving combinatorial ideas in mathematical analysis. The conference takes the form of a series of courses (each course being made up of 3 or 4 one-hour lectures), the courses being carefully structured so that the more basic material is presented during the first week, leading to more advanced lectures in the second week. The themes of the conference will be: combinatorial number theory; combinatorial methods in convexity; combinatorial methods in harmonic analysis; concentration of measure; geometric inequalities; and Ramsey methods in Banach spaces.

Speakers will include:

- Keith Ball (University College London)
- Franck Barthe (Marne-La-Vallee)
- William Beckner (Austin, Texas)
- Bela Bollobás (Cambridge and Memphis)
- Tony Carbery (Edinburgh)
- Mike Christ (UC Berkeley)
- Apostolos Giannopoulos (Heraklion)
- Gil Kalia (Hebrew Univ. of Jerusalem)
- Michel Ledoux (Toulouse)
- Ted Odell (Austin, Texas)
- Imre Ruzsa (Hungarian Academy of Science)
- Gideon Schechtman (Weizmann Institute)
- Terry Tao (UCLA)
- Christoph Thiele (UCLA)

Supporting institutions and organizations:

The meeting is supported by EC Framework and the Engineering and Physical Sciences Research Council. The Organisers hope to provide financial support for the majority of younger participants.

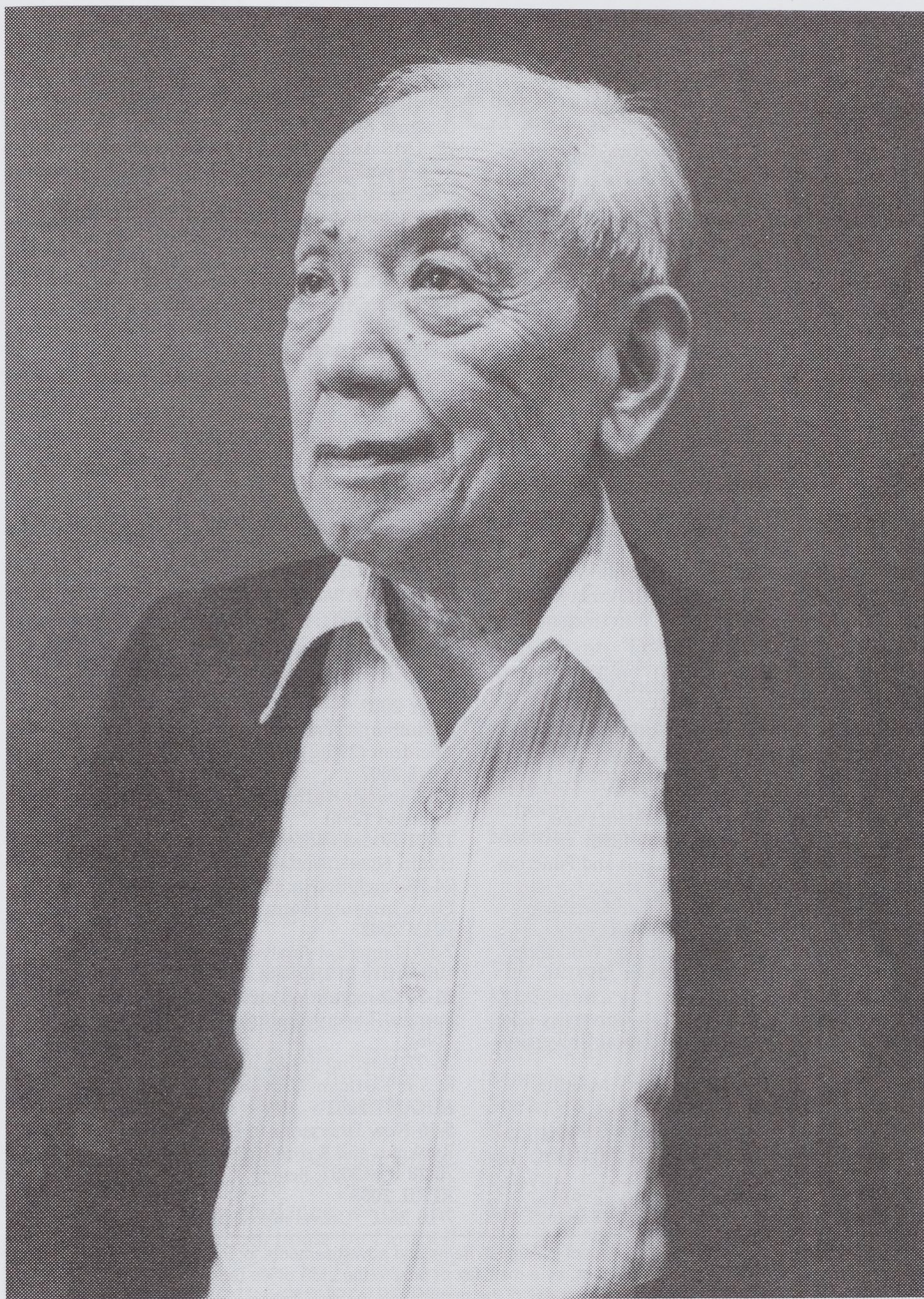
The meeting webpages will contain detailed information, including a provisional timetable, registration forms, and information on how to apply for financial support.

(<http://www.ma.hw.ac.uk/icms/meetings/2002/cama/index.html>).

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S.S. CHERN
HONORARY MEMBER 1986

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>).

SEPTEMBER 2001

- 1-6 Number Theory and Arithmetical Geometry EURESCO Conference, Italy (292)
 - 3-7 Geometric Aspects of Group Theory, LMS/EPSC Short Course, Bath University (293)
 - 2-6 Applied Mathematics in our Changing World, Berlin, Germany (292)
 - 6 Industrial Mathematics Meeting, Royal Society of Edinburgh (294)
 - 3-14 Discrete System and Integrability EuroWorkshop, INI, Cambridge (292)
 - 5-7 Domain Decomposition Methods in Fluid Mechanics LMS Workshop, Greenwich University (292)
 - 6-8 British Logic Colloquium 2001, Manchester University (293)
 - 10-11 Boundary Integral Methods Conference, Brighton University (293)
 - 10-14 Mathematics in Medicine Study Group, Nottingham University (296)
 - 11-15 Kleinian Groups and Hyperbolic 3-Manifolds Workshop, Warwick University (295)
 - 12 LMS South West and South Wales Regional Meeting, Bristol University (294)
 - 13-14 Zeta Functions, Random Matrices and Quantum Chaos Workshop, Bristol University (294)
 - 17-21 Algebra and Topology Workshop, Leicester University (296)
 - 20 Mathematics for Solid and Structural Mechanics, UMIST (295)
 - 20 Connectivity between Mathematics and Engineering, UMIST, Manchester (296)
 - 21-22 Partial Differential Equations and Function Spaces, Sussex University (296)
 - 22-23 History of Mathematical Table Making Conference, Kellogg College, Oxford (291)
 - 24-28 Vertical Integration in Biology Workshop, Isaac Newton Institute, Cambridge (291)
- ### OCTOBER 2001
- 5 Analytic Number Theory, York University (296)
 - 6 Arf Lectures, Middle East Technical University, Ankara (296)
 - 19 Edinburgh Mathematical Society Meeting, Edinburgh (296)
 - 19-20 Spectral Theory Network Conference, University of Cardiff (296)
- ### NOVEMBER 2001
- 9 Spectral Day, Leicester University (296)
 - 16 Edinburgh Mathematical Society Meeting,

Glasgow (296)

- 23 LMS Annual General Meeting, London (295)
- 24 Belfast Functional Analysis Day 2001, Queen's University Belfast (296)

- 30 Algebraic Aspects of Integrability, LMS Spitalfields Day, Loughborough University (296)
- ### DECEMBER 2001

- 2-8 ICMS Workshop, Edinburgh (295)
- 3-5 Pattern Formation by Swimming Micro-organisms and Cells Meeting, Leeds University (294)
- 7 Edinburgh Mathematical Society Meeting, Heriot-Watt (296)

JANUARY 2002

- 6-11 Mathematical Biology, LMS/EPSC Short Course, Manchester University (296)
- 18 Edinburgh Mathematical Society Meeting, Edinburgh (296)

FEBRUARY 2002

- 15 Edinburgh Mathematical Society Meeting, Edinburgh (296)

MARCH 2002

- 8 Edinburgh Mathematical Society Meeting, Dundee (296)

APRIL 2002

- 7-12 Joint BMC/BAMC, Warwick University (296)

MAY 2002

- 3 Edinburgh Mathematical Society Meeting, Aberdeen (296)

JUNE 2002

- 7 Edinburgh Mathematical Society Meeting, St Andrews (296)
- 17-21 Householder Symposium XV, Peebles Hydro Hotel, Scotland (296)
- 24-28 Analytic Number Theory Workshop, Max Planck Institute, Bonn (288)

JULY 2002

- 7-19 Numerical Analysis Summer School, University of Durham (295)
- 21-26 Computation and Analytic Problems in Spectral Theory Workshop, University of Wales (296)

- 26-27 Meeting in honour of 65th birthday of M.S.P. Eastham, University of Wales (296)

AUGUST 2002

- 5-15 New Directions in Dynamical Systems, Ryukoku and Kyoto Universities (293)
- 20-28 ICM2002, Beijing, China (272)

APRIL 2003

- 7-10 BMC, University of Birmingham (296)

The Newsletter is published monthly except in August. Items and advertisements for inclusion in the Newsletter should be sent to the Editor, Susan Oakes, by e-mail, fax or post to the LMS office (addresses below), to arrive before the first day of the month prior to publication.

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