

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 297

October 2001

FORTHCOMING SOCIETY MEETINGS

Friday 23 November - London

Annual General Meeting

Professor A.S. Fokas (Naylor Lecture)

Professor J.F. Toland FRS

LMS 2001 ELECTIONS AND OFFICERS

The ballot papers for the November elections are being circulated with this issue of the *Newsletter*. One change amongst the Officers is signalled: Stephen Huggett is nominated as the next Meetings and Membership Secretary, following the resignation of Nick Woodhouse.

However, over the coming year there will be more changes in the ranks of the Officers (even after assuming that the sole nominees for the positions are elected in November!) and Council has asked that the Society should be informed about these.

Alun Morris will be resigning from his position as Treasurer in February or March and Council, in consultation with Nominating Committee, has agreed to appoint Nick Woodhouse in his place. In the same way, John Pym will resign as Council and General Secretary in June, and Council will appoint Norman Biggs, the current Librarian, in his place. This procedure is in accordance with the Statutes. Appointments made by Council run only until the next AGM, and the Society will be able to vote for the new Officers in the elections in November 2002.

John Pym
Council and General Secretary

ANNUAL DINNER

The Annual Dinner will be held after the Annual General Meeting on Friday 23 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 this *Newsletter*, should be returned together with payment to the London Mathematical Society office by **Monday 19 November**.

SUBSCRIPTIONS AND PERIODICALS

The annual subscription to the London Mathematical Society for the 2001-02 session shall be: Ordinary Members £24.50; Reciprocity Members £12.25; Associate Members £6.50. The prices of the Society's periodicals to Ordinary, Reciprocity and Associate Members for the 2001-02 session shall be: *Proceedings* £49.00; *Journal* £49.00; *Bulletin* £24.50; *Journal of Computation and Mathematics* is free and *Nonlinearity* £40.00.

ANNUAL SUBSCRIPTION

The LMS annual subscription, including publications, for the session November 2001 - October 2002 is due on 1

November 2001. Together with this *Newsletter* is a renewal form to be completed and returned with your remittance in the enclosed envelope.

No action is required if you are already paying by direct debit, and do not wish to change your choice of publications. Fully complete and return the form if you are paying by direct debit but wish to change your choice of publications or add/delete a subscription to the European Mathematical Society. Bank accounts of members paying by direct debit will be debited with the appropriate amount on **15 January 2002**. Other members should either enclose a cheque (£ sterling or US\$) with their form or, if they have a UK bank account and wish to take advantage of this convenient form of payment, request a direct debit mandate. Although the facility to pay by credit card is open to all members of the Society, it is our preference that members continue to pay by direct debit.

PUBLICATIONS PRICING POLICY

The London Mathematical Society has a pricing structure for its journals, which allows individual members to purchase them at a substantial discount. These discounted prices are intended for personal use only and the journals should be kept among your personal belongings and not deposited, even temporarily, in a library, common room or other public area. Issues of the journals should be accessible to other mathematicians or students only with your permission, given individually in each instance.

THE LIBRARY OF G.H. HARDY

After Hardy's death in 1947 his books were inherited by J.E. Littlewood. In 1971 the majority of them were sold to Galloway and Porter, a Cambridge bookdealer, and were subsequently offered for sale to the public through a

catalogue. A number were sold individually, and the University of Aston acquired a substantial part of the collection.

In 1998 the LMS was informed that Aston wished to sell their part of the collection and approximately 300 volumes were acquired for the sum of £1500. Since then the books have been kept in the Members' Room at De Morgan House.

Although the collection is obviously not intact, it does contain a number of interesting items. About 200 volumes are signed by Hardy, and another 50 by both Hardy and Littlewood. There are also a few books containing the names or bookplates of other famous people, such as Bertrand and Alys Russell, A.R. Forsyth and Horace Lamb, and some complimentary copies inscribed by their authors, including H. Bohr, Carleman, Julia, Picard and Pringsheim. There are two of Hardy's own books, *Pure Mathematics* and *Inequalities*, with some annotations by the author.

The Librarian and Archivist are currently considering how best to conserve and consolidate this collection, and members of the Society may be able to help us. A copy of the Galloway and Porter sale catalogue from 1971 would be very useful, and information on the current whereabouts of books that were sold privately would also be welcome. Contact Janet Foster at De Morgan House for further details (e-mail: archive@lms.ac.uk).

Norman Biggs

NEW CHIEF EXECUTIVE AT EPSRC

Professor John O'Reilly, Professor of Telecommunications at University College London, has been appointed as Chief Executive of EPSRC for four years from October 2001, when Professor Richard Brook's appointment comes to an end. Professor O'Reilly is 54, a graduate of Brunel University and holds a PhD from the University of Essex and a DSc from Brunel University.

LONDON MATHEMATICAL SOCIETY

Annual General Meeting

Friday 23 November 2001 at 3.15 pm

Professor J.F. Toland, FRS (Bath)
will speak at 3.30 pm on
**Complex variables in the variational theory of
water waves**

Professor A.S. Fokas (Imperial College)
will give the 2000 Naylor Prize Lecture
at 5.00 pm on
**Differential Forms, Spectral Theory
and Boundary Value Problems**

All interested are very welcome
Tea will be served at 4.30 pm

The meeting will be held in the Darwin Lecture Theatre,
University College London, Gower Street, London WC1

Please note 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 Meetings and Membership 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 on the front page of this *Newsletter*.

All enquiries may be addressed to Susan Oakes (tel: 020 7637 3686, e-mail: lms@lms.ac.uk).

Associate Professor in Mathematics

(including Mathematics Education)

Vacancy 1220LMS

Lecturer in Mathematics

(including Mathematics Education)

Vacancy 1219LMS

Department of Mathematics
Faculty of Science

The University of Auckland invites applications for two vacant positions within its Department of Mathematics.

The Department of Mathematics, the largest and strongest in New Zealand, offers a full range of courses at the undergraduate and postgraduate levels, and has a growing PhD programme and a vibrant research culture spanning pure and applied mathematics and mathematics education.

More details may be found at the website
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Further information concerning these positions is available from the Head of the Department of Mathematics, Professor D.B. Gauld, telephone 64-9-373 7599 ext 8697, fax 64-9-373 7457, email: gauld@math.auckland.ac.nz

Three copies of applications, quoting the appropriate Vacancy Number, must reach the Academic Appointments Office, Human Resources Registry, The University of Auckland, Private Bag 92019, Auckland, New Zealand **by the closing date of 31 October 2001.**

ACADEMIC
APPOINTMENTS



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

VISIT OF PROFESSOR S.P. KUZNETSOV

Professor S.P. Kuznetsov from Saratov State University and Saratov Branch of the Institute of Radio-Engineering and Electronics of the Russian Academy of Sciences, Russia, will be visiting the UK from 7 November to 5 December, supported by an LMS International Short Visits grant. He will be based at Loughborough University. For further information contact Andrew Osbaldestin, Mathematical Sciences Department, Loughborough University, Loughborough LE11 3TU (tel: 01509-223189, e-mail: A.H.Osbaldestin@lboro.ac.uk).

VISIT OF PROFESSOR S. SIDKI

Professor S. Sidki (University of Brasilia) will be visiting Professor J.S. Wilson at the University of Birmingham from 8 October to 1 December. The visit is supported by an LMS International Short Visits grant. Professor Sidki is an expert in group theory, and in particular on finitely generated groups which act on rooted trees and which exhibit fractal-like behaviour. Further details about the visit may be obtained from Professor J.S. Wilson (j.s.wilson@bham.ac.uk).

VISIT OF DR Y. TOMILOV

Dr Yuri Tomilov from the Institute of Mathematics (Kiev, Ukraine) and Nicholas Copernicus University (Torun, Poland) will be visiting the UK for a month during November funded by an LMS Scheme 5 International Short Visits grant. Dr Yuri Tomilov works on pure and applied operator theory and related topics of complex analysis. He will stay at the University of Leeds and visit Universities of Edinburgh, Oxford and York. Several talks about his recent results will be arranged at those Universities. Further details can be obtained from Dr V. Kisil (kisilv@amsta.leeds.ac.uk).

THE 2002 HARDY FELLOW

PROFESSOR ALEXANDER R. ITS, of Indiana University-Purdue University, has accepted the Society's invitation to be the Hardy Fellow for 2002.

Professor Its will visit the UK for about four months between March and June 2002, and will hold his Fellowship at Imperial College, London, where his host will be Professor Trevor Stuart. During the tenure of his Fellowship, he will visit other institutions, and will give some seven or eight lectures, including the 2002 Hardy Lecture to the Society on Friday 21 June 2002. He has suggested the following lectures (the first four of which are survey talks):

A Riemann-Hilbert Method In this talk a general overview of the Riemann-Hilbert method, which was originated in 1970s-1980s in the theory of integrable nonlinear PDEs of the KdV type, will be given. The most recent applications of the Riemann-Hilbert approach to asymptotic problems arising in the theory of matrix models, combinatorics and integrable statistical mechanics will be outlined.

Asymptotics of Orthogonal Polynomials, the Riemann-Hilbert Problem and Universality in Matrix Models In this talk, the essence of the Riemann-Hilbert approach to matrix models will be presented together with an exposition of their occurrence in diverse areas of mathematics and physics.

Connection Formulae for Painlevé Equations In this talk we will review some of the recent developments in the global asymptotics analysis of the classical Painlevé equations based on the use of the Isomonodromy Riemann-Hilbert Method.

A Riemann-Hilbert Approach to the Distribution Functions of Random Matrix Theory The distributions of random matrix theory govern the statistical properties of the large systems which do not obey the usual laws of classical probability, and which range from heavy nuclei to the zeros of the zeta function. A remarkable analytic feature of random matrix distribution functions is that they can be described in terms of certain integrable nonlinear differential systems. In the talk an explanation of this fact, based on the so called "Integrable Fredholm Operators" and related Riemann-Hilbert problem will be given.

The Nonlinear Schrödinger Equation on the Half-Line and on a Finite Interval We consider the initial - boundary value problem for the nonlinear Schrödinger equation on the half-line and on a finite interval. We show that these problems can be reduced to the analysis of certain matrix Riemann - Hilbert problems posed on a cross in the complex plane of spectral parameter. This is joint work with Thanasis Fokas.

Quasi-linear Stokes Phenomenon for the Second Painlevé Transcendent Using the Riemann-Hilbert approach, we study the quasi-linear Stokes phenomenon for the second Painlevé equation $y_{xx} = 2y^3 + xy - a$. The precise description of the exponentially small jump in the dominant solution approaching a/x as $|x| \rightarrow \infty$ is given. The asymptotics of the coefficients of the formal power series, which asymptotically represents the dominant solution, are found. This is joint work with Andrei Kapaev.

Double Scaling Limit in the Random Matrix Model The Riemann-Hilbert Approach. We prove that correlation functions of the quartic matrix model in the double scaling limit are expressed in terms of the integrable kernel determined by the psi-function for the Hastings-McLeod solution to the Painlevé II equation. The proof is based on the Riemann-Hilbert approach. This is joint work with Paul Bleher.

Institutions that wish to invite Professor Its to give a lecture should write to the Executive Secretary, Dr D.J.H. Garling, at De Morgan House (garling@lms.ac.uk) by **30 November 2001**. It is expected that more invitations will be received than can be accepted, and neighbouring institutions are therefore encouraged to submit joint invitations. The itinerary and lecture title at each venue will be decided by the Society's Programme Committee, in consultation with Professor Its, Professor Stuart and with the host institutions.

2001 HARDY LECTURER

Hardy had some strange views, one of his most famous is the remark that the best mathematics is useless! Hardy worked at a time when probability was still without a rigorous mathematical foundation. Perhaps this explains why he consistently produced workarounds (not always so clever) to avoid using probabilistic theorems. He writes, in his apology, that philosophers have second class minds and one can only guess at the position of probability theory!

So it was hugely refreshing to have a Hardy Lecturer whose sparkling lectures demonstrated enormous mathematical vigour but which almost all had the by line "why should we care?" In the Hardy Lecture itself he explained the "routine" probabilistic contents of many of Hardy's theorems.

Perhaps because of Hardy's ghost Persi Diaconis, Hardy Lecturer for 2001, has just left the UK. However, besides giving the Hardy Lecture he gave a dozen lectures as Hardy Fellow, together with another score of lectures around the country. Virtually all were in packed lecture theatres.

This popularity was easy to explain. Professor Diaconis has a huge breadth of knowledge, which he combines with an ease of exposition that enables him to explain deep interactions between probability and other fields of mathematics. His amazing talents ensured that the lectures had broad appeal and many will have gone away with new insights into areas close to their own mathematical interests.

It was harder to understand the will- ingness of Professor Diaconis to subject himself to such a gruelling schedule. Still, on behalf of the thousands who attended his lectures, I must say we are very pleased he did and thank him very much indeed for his "rapid mixing" with the UK community. And if members of the Society now realise they made a mistake as undergraduates in rejecting Bell shaped curves and find

large random matrices, random young tableau stochastic algorithms in group theory, something they would like to understand better, well..... this author would be pleased to find a reading list!

T.J. Lyons

THE FUTURE OF THEORETICAL PHYSICS AND COSMOLOGY

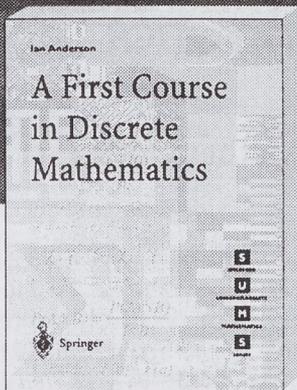
The local organising committee wish to give notice of a conference to be held at the Centre for Mathematical Sciences at the University of Cambridge on Friday 11 January 2002. The conference, entitled 'The Future of Theoretical Physics and Cosmology' is being held in honour of the sixtieth birthday of Professor Stephen Hawking on 8 January 2002.

The one-day meeting on Friday will consist of 400 participants, drawn largely from the graduate student communities of UK Universities and also including many of the 180 distinguished scientists who attended the four-day scientific workshop prior to the Friday meeting. The programme of speakers includes Sir Martin Rees, Professor Kip Thorne, Professor James Hartle and Professor Stephen Hawking.

The meeting will be held in the central core of the newly built Centre for Mathematical Sciences at Cambridge University. Members are invited to apply for tickets by contacting the conference secretary, Jennifer Formichelli, at Centre for Mathematical Sciences, Wilberforce Road, Cambridge CB3 0WA (tel: 01223-765317, e-mail: J.L.Formichelli@damtp.cam.ac.uk). Please apply early, as places are limited. All requests should be received no later than **15 November 2001**. The cost of tickets is £20, including lunch. The organisers regret that they are unable to provide parking. There is a nearby Park and Ride facility on Madingley Road. The meeting is supported by an LMS conference grant.

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S. Dineen

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Springer

UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF PURE MATHEMATICS AND MATHEMATICAL STATISTICS

University Lecturer in Pure Mathematics

Mathematicians with a well established record of research in any branch of Pure Mathematics are invited to apply for this post. The appointment should begin by 1 October 2002 but is available from 1 January 2002.

Further particulars may be obtained from the Head of Department, DPMMS, Centre for Mathematical Sciences, Wilberforce Road, Cambridge CB3 0WB (or telephone (01223) 337996; fax (01223) 337920; e-mail the Administrator, S.Lowe@dpmms.cam.ac.uk; consult <http://www.dpmms.cam.ac.uk>).

Applications should be sent to the Head of Department and should include a *curriculum vitae* and e-mail address, list of publications, and the names, postal and e-mail addresses of 3 referees. Candidates must ask their referees to send their reports direct to the Head of Department, to reach him by the closing date.

The closing date for applications is **31 October 2001**

The University is committed to equality of opportunity and has a policy on arrangements for part-time work

INTERNATIONAL CONGRESS OF MATHEMATICIANS - 2002

First Announcement

The Organising Committee is pleased to announce that the next International Congress of Mathematicians will take place in Beijing, China, from Tuesday 20 to Wednesday 28 August 2002. It will be held under the auspices of the International Mathematical Union (IMU) and sponsored by many other institutions.

Scientific Programme

Responsibility for the scientific programme lies with the Programme Committee appointed by IMU. There will be about 20 one-hour Plenary Lectures covering recent developments in the major areas of mathematics and 169 forty-five-minute Invited Lectures in 19 sections. In addition, there will be two groups of panel discussions in Section 18. The sections are as follows:

1. Logic
2. Algebra
3. Number Theory
4. Differential Geometry
5. Topology
6. Algebraic and Complex Geometry
7. Lie Groups and Representation Theory
8. Real and Complex Analysis
9. Operator Algebras and Functional Analysis
10. Probability and Statistics
11. Partial Differential Equations
12. Ordinary Differential Equations and Dynamical Systems
13. Mathematical Physics
14. Combinatorics
15. Mathematical Aspects of Computer Science
16. Numerical Analysis and Scientific Computing
17. Applications of Mathematics in the Sciences
18. Mathematics Education and Popularization of Mathematics
19. History of Mathematics

Every registered participant (traditionally called Ordinary Member) of the Congress will have the opportunity to give a short presentation, either during a poster session or in the form of a fifteen-minute lecture. A formal call for such presentations will be issued in the Second Announcement. Informal mathematical seminars may be organised at the initiative of groups of participants. English, French, German, and Russian are the official languages of the Congress.

All Plenary and Invited Lectures will be published in the Proceedings of ICM2002; after the Congress, a complimentary copy of these Proceedings will be sent to each registered participant. Abstracts of all lectures and of all short presentations will be distributed free of charge to registered participant at Congress check-in.

The Fields Medals and the Nevanlinna Prize will be awarded during the Opening Ceremony on the first day of the Congress. This will take place in the Great Hall of the People. All other scientific events will be held at Beijing International Convention Center (BICC). No scientific activities are scheduled for Sunday 25 August. In an effort to reach out to a wider audience, the ICM2002 organisers have initiated several cultural activities related to mathematics that are attractive to the general public.

Social Events

During the Congress, a number of guided tours of Beijing, visits to museums, and walking tours will be offered. On Sunday 25 August, excursions to several places of cultural interest will be arranged. For that evening, a Beijing opera will be available at the Chang'an Theater. Registered participants and the accompanying persons may purchase tickets in advance for these events as well as for many day trips and pre- or post-congress tours to places of interest.

Organisation

Up-to-date information about all aspects of ICM2002 is available on the following website (<http://www.icm2002.org.cn>). This includes information about registration, abstract submission, etc. Correspondence should be sent by e-mail (icmsec@beijing.icm2002.org.cn). It will be forwarded to an appropriate member of the Organising Committee. If electronic communication is not available you may also write to ICM2002, c/o Professor Dr Y.X. Yuan, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, A South 4th Street, Zhong Guan Cun, Beijing 100080, China (fax: +86-10-6261 8223).

Registration and Accommodation

China International Conference Center for Science and Technology (CICCST), a professional congress organiser, has been appointed by the Organising Committee to handle all non-scientific matters for individual participants: registration to the Congress and the social events, hotel reservation, tourist programme, collection of registration fees, etc. The formal registration procedure for the Congress will be described in the Second Announcement.

Participants will be accommodated in a variety of hotels in Beijing; necessary reservations are being made by CICCST. In addition, CICCST will make student residences available. Detailed information will be provided on the Congress website in November 2001 as well as in the Second Announcement. Forms for registration and accommodation will be available on the ICM2002 server in January 2002.

Second Announcement

The Second Announcement of ICM2002 will describe the activities of the Congress in more detail and give instructions on how to complete the registration process and obtain accommodation. It will provide more, although not complete, information on the scientific programme, contain a call for contributed

short presentations, and give instructions regarding the submission of abstracts.

The Second Announcement will also include advice on how to proceed upon arrival at airports and train stations, and information on the day trips and tours organized by CICCST. Satellite conferences of a more specialized nature are scheduled immediately before or after ICM2002. The Second Announcement will also contain a list of these conferences.

If you did not pre-register before and wish to receive the Second Announcement, fill out the form on the ICM2002 server (<http://www.icm2002.org.cn>). Alternatively, send an e-mail (icm2002@beijing.icm2002.org.cn) with 'Second Announcement' in the subject line and with the following data: family name, first name, middle name, institution, street address, postal code, city, country and e-mail. The Second Announcement will be mailed from Beijing at the beginning of 2002.

THE FIRST HODGE FELLOWSHIP

The Institut des Hautes Etudes Scientifiques has announced the recipients of the first Hodge Fellowships that are funded in partnership with the EPSRC. The successful candidates are Antonios Papazoglou (Oxford University) and Anupam Saikia (Cambridge University). They will spend a year at the IHES, which is located in Bures-sur-Yvette, near Paris.

The fellowship intended for outstanding young mathematicians and theoretical physicists, who have no more than three years postdoctoral experience, have been named in honour of Sir William Hodge, the eminent British mathematician, whose main interests were in algebraic and differential geometry. The next closing date for Hodge Fellowships starting in September 2002 is **31 December 2001**. Further details are available from the IHES website (<http://www.ihes.fr>).

Algebraic Topology

Allen Hatcher

This text is suitable for use in a first-year graduate course or for self-study, featuring broad coverage of the subject and a readable exposition, with many examples and exercises. Along with the basic material, the book includes many optional topics for which elementary expositions are hard to find.

£60.00 HB 0 521 79160 X 500pp 2001
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This is a new edition of a now classic text. The addition of two new sections, numerous new results and over 150 references mean that this is an up-to-date account of random graph theory.

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Cambridge Studies in Advanced Mathematics, 73

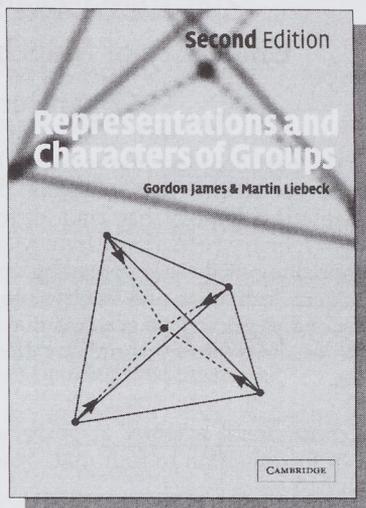
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MATHEMATICAL BIOLOGY

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 is **26 October 2001**.

NEW TRENDS IN COMPUTATIONAL DIFFERENTIAL EQUATIONS

LMS/EPSRC Short Course

University of Cambridge, 24 - 28 March 2002

Organisers: C.J. Budd, A. Iserles and N. Nikiforakis

Few subject areas in modern mathematics exhibit such a large gap between available and evolving theory and everyday practice as *computational differential equations*. Our mathematical understanding of discretisation processes and their algorithmic implementation has undergone substantial revolution in the last decade. There are entirely new families of discretisation methods, for example, multiresolution techniques and fast multipole algorithms. We have a much-improved rigorous understanding of what numerical methods can do in practice and how well they are capable of modelling differential equations.

The purpose of this short course is to expose UK research students, mainly (but not exclusively) from the applied and computational community, to new trends in the discretisation of differential equations. Our intention is to provide participants with an opportunity to familiarise themselves with new computational approaches and to examine how the latter fit into their own research interests.

The course titles and lecturers are:

- **Adaptivity and geometric integration** : Chris Budd (University of Bath)
- **Multiresolution methods for partial differential equations** : Wolfgang Dahmen (RWTH Aachen)
- **Approximation theory for numerical computation** : Ron DeVore (University of South Carolina)
- **Partial differential equations in image processing, computer vision and computer graphics** : Guillermo Sapiro (University of Minnesota)

The courses will be supplemented by workshops and tutorials. For more information about the courses and lecturers, consult the website: <http://www.damtp.cam.ac.uk/user/na/LMS/>.

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** (spoor@lms.ac.uk) or from the website: http://www.lms.ac.uk/activities/research_meet_com/short_course/09_app.html.

Numbers will be limited and those interested are advised to make an early application. The closing date for applications is **30 November 2001**.



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Expanding the Margin: Fermat's Theorem for Mathematicians

Algebraic Number Theory and Fermat's Last Theorem Third Edition

Ian Stewart & David Tall

October 2001; ISBN 1-56881-119-5
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BOOK REVIEW

Two Millenia of Mathematics, From Archimedes to Gauss by George M. Phillips (CMS Books in Mathematics, Springer, New York, 2000) 224 pp, hardback £37.00, ISBN 03 8 79 50222.

In an ideal university the staff would supplement the standard courses by offering lectures in which they talked about topics which they particularly loved at a level which the students could understand. And, in an ideal university, the students would flock to such lectures.

George Phillips' book consists of five short courses to be given at our ideal university. As the title is intended to suggest, the topics are treated with due respect for their history and all have their roots in the works of Gauss or earlier mathematicians. The level chosen is that of a first or second year student and the exposition uses the relaxed 'explanation, theorem, proof' style of the best colloquium talks. Although the structure of the book is very different, the level of attention demanded, the care taken with the mathematics and the evident enthusiasm of the author reminded me strongly of Hardy and Wright's masterpiece.

George Phillips addresses himself primarily to 'undergraduate students of mathematics, more experienced students, and the vast number of *amateurs*, in the literal sense of those who do something for the love of it'. As a secondary purpose he hopes that 'it will be a useful source of material for those who teach mathematics'.

Given the nature of the *Newsletter*, I think I will have discharged my duty to the primary audience by saying that this book should be in every university or college library used by undergraduates. The rest of my review is directed to the secondary audience.

The author is a numerical analyst and of the five topics he has chosen, three deal with straight numerical

analysis. The first chapter discusses the computation of pi and contains a clear account of some of the, to me, almost miraculous modern methods which double the number of correct figures at each iteration. (Until the 1970's the methods used added a fixed small number of correct figures for each cycle of computation.) For most readers of the *Newsletter* this will be the most novel part of the book.

The second chapter deals with logarithms. Although such a chapter must necessarily contain much that is familiar to the professional, it contained many points which made me reflect on my own teaching practice. For example, I have always known vaguely that, before the invention of logarithms there was already a method for converting multiplication into addition using a table of chords. The author gives the details (which turn out to be easy) and then points out that that we can convert multiplication into addition using a table of squares. The reader of this review should take a minute to see why this is so and then a few minutes to see why logarithms are, none-the-less, a far superior calculating tool. The author also provides the details of how the pioneers actually calculated their tables of logarithms. (A detail which puzzled me in school but which, I am ashamed to say, I have never looked into.)

The fourth chapter deals with Euclid's algorithm and continued fractions and the fifth with various topics from number theory including quadratic residues and Fermat's theorem with cubic exponent. The treatment is fairly standard but with a stress on computation which is very instructive.

I have left discussion of the third chapter to last since it seems to me to illustrate the strengths and weaknesses of the author's approach. In it he deals with interpolation and, in particular, with the method of divided differences. So far as I am concerned, anyone like the author who can discourse

clearly and enthusiastically on divided differences gets my vote. The section in Kopal's book on numerical analysis where he shows how to use divided differences to test the quality of a numerical tables was one of the first things to give me a genuine mathematical thrill.

However, I was brought up in a table dominated society. The ability to read a table of logarithms was a *pons asinorum* over the gap which divided the numerate elite from the innumerate multitude. My students, on the contrary, live in a machine dominated society where calculation is so cheap that it is hardly valued. How are they to be persuaded to study divided differences? What, to use that tired old cry, is the relevance of the subject to them?

I think the author's reply might be twofold. First, he is dealing with history and not writing a textbook. (But, even historically, there is a tension

between the sophisticated algebra used for high order interpolation and the unpleasant fact that, without due care, the result can be computationally meaningless.) Second, a piece of mathematics is beautiful in itself and questions of utility are irrelevant.

Let me leave the author with the last word lest this turns into one of those reviews which demand a different book from the author from that which he wished to write. George Phillips has written the book he wanted to write, I am glad he has done so and I am glad to have read it.

Tom Körner

ROYAL SOCIETY OF EDINBURGH ELECTIONS

Professor A. Carbery, Edinburgh, and Professor J.A. Sherratt, Heriot-Watt, were elected as ordinary fellows of the Royal Society of Edinburgh.

RECORDS OF PROCEEDINGS AT MEETINGS

REGIONAL ORDINARY MEETING

held on *Friday 6 July 2001* at UMIST, Manchester. About 50 members and visitors were present for all or part of the meeting. The meeting began at 3.15 pm, with Professor J.T. STUART, FRS, in the Chair.

One person was elected to Ordinary Membership: A. Griffor; and three were elected to Reciprocity Membership: M. Baake (Amer. Math. Soc., Can. Math. Soc.), K.K. Choo (Aus. Math. Soc.) and C.A. Pallikaros (Amer. Math. Soc.).

Dr T. Voronov introduced a lecture given by Professor B. Fedosov on "Deformation quantization: pro and contra".

After tea seven members signed the book and were admitted to the Society.

Dr T. Voronov introduced a lecture given by Professor A. Vaintrob on "Homological vector fields".

In the evening a reception and dinner was held at the Harwood Room, UMIST.

LMS NORTHERN REGIONAL MEETING AND WORKSHOP

The LMS Northern Regional Meeting took place on Friday 6 July 2001 at UMIST. There were two invited lectures: Professor Boris Fedosov (Bonn): *Deformation quantization: pro and contra* and Professor Arkady Vaintrob (Oregon): *Homological vector fields*.

The LMS-sponsored workshop "Quantization, deformations, and new homological and categorical methods in mathematical physics" took place from 7-13 July 2001 at UMIST.

There were 3 minicourses:

- Professor John Jones (Warwick): Operad theory (4 lectures)
- Professor Arkady Vaintrob (Oregon): Homological vector fields and their applications (3 lectures)
- Professor Klaas Landsman (Amsterdam): Quantization as a functor (3 lectures)

Besides the mini-courses there were 22 one-hour talks. The speakers were: Alexander Chervov (Université d'Angers), Marius Crainic (Utrecht University), Joseph Donin (Bar-Ilan University), Askar Dzhumadil'daev (Institute of Mathematics, Almaty), Boris Fedosov (MPIM, Bonn), Rui Loja Fernandes (Instituto Superior Tecnico, Lisbon), Hovhannes Khudaverdian (UMIST), Vladimir Kisil (University of Leeds), Yvette Kosmann-Schwarzbach (Ecole Polytechnique), Liu Zhang-ju (Peking University), Kirill Mackenzie (University of Sheffield), Yoshiaki Maeda (Keio University), Ieke Moerdijk (Utrecht University), Janez Mrcun (University of Ljubljana), Andrei Mudrov (Bar-Ilan University), Olga Radko (UC Berkeley), John Rawnsley (University of Warwick), Dmitry Roytenberg (Penn State University), Theodore Voronov (UMIST), Nathalie Wahl (University of Oxford), Ping Xu (Penn State University).

Approximately 50 people attended the

one-day meeting and about 30 attended the workshop. We had hoped for a somewhat larger attendance at the one-day meeting. It was noted that most of those attending the one-day meeting were also attending the workshop or were local to Manchester: rather few travelled from other universities just for the one-day meeting. Perhaps it will just take time for the annual regional meeting to become established in people's minds as an event which one should seriously consider attending even if the topic is not in one's area.

The consensus of those attending was that the workshop has been a scientifically exciting event. There is a possibility that the proceedings of the meeting/workshop will be published. Details, including the complete list of talks with links to abstracts, can be found on the website (<http://www.ma.umist.ac.uk/tv/LMS/>).

M. Prest

NORTH BRITISH FUNCTIONAL ANALYSIS SEMINAR

A meeting of the North British Functional Analysis Seminar will be held at the Department of Mathematics, University of York, from 2.30 pm on Friday 2 November until 12.00 am on Saturday 3 November 2001. The speakers will be Professor Joram Lindenstrauss (Hebrew University, Jerusalem) and Professor Florian-Horia Vasilescu (Université de Lille). The meeting is supported by an LMS conference grant. For further information, contact Dr Zinaida Lykova, Newcastle University (Z.A.Lykova@ncl.ac.uk).

NATIONAL ACADEMY OF SCIENCE ELECTIONS

Professor M.J.D. Powell FRS, Cambridge, has been elected as an associate of the US National Academy of Sciences.

GRESHAM COLLEGE LECTURES Autumn Semester

Professor Harold Thimbleby, Gresham Professor of Geometry, will be giving the following lectures:

25 October, 6 pm 'The Computer Science of Everyday Things'

29 November, 6 pm 'From Henry Briggs to Modern Calculators'

Dr Robin Wilson, Visiting Professor in the History of Mathematics, will be giving the following lectures:

17 October, 6 pm 'Maps, Maidens and Molecules'

31 October, 6 pm 'The Incommunicable Doctor Pell'

21 November, all day meeting '1000 years of British Mathematics'

31 October is a joint meeting with the British Society for the History of Mathematics. Admission by ticket only for the 21 November meeting. For further information contact Gresham College, Bernard's Inn Hall, Holborn, London EC1N 2HH (tel: 020 7831 0575, fax: 020 7831 5208, e-mail: enquires@gresham.ac.uk, web: <http://www.gresham.ac.uk>).

VISIT OF PROFESSOR J-P. KAHANE

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

- Tuesday, 16 October, 5.00 pm, Mathematical Institute "The Birth and Posterity of the Lebesgue Integral"
- Wednesday, 17 October, 5.15 pm, 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 Mathematical Institute (edwardsd@maths.ox.ac.uk).

NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS CONFERENCE - THEORY AND APPROXIMATION

The International Conference on Nonlinear Partial Differential Equations - Theory and Approximation will be held from 29 August to 2 September 2002 at City University of Hong Kong. The event is a satellite conference of the International Congress of Mathematicians to be held on 20-28 August 2002 in Beijing, China. The conference aims to review and discuss the latest trends in nonlinear partial differential equations, with world leaders in the field delivering plenary lectures. The plenary speakers are:

- S.S. Antman (University of Maryland)
- D.N. Arnold (University of Minnesota)
- J.M. Ball (University of Oxford)
- A. Bressan (International School for Advanced Studies)
- M. Chipot (Universität Zürich)
- P.G. Ciarlet (Université Pierre et Marie Curie)
- C.M. Dafermos (Brown University)
- R. Glowinski (University of Houston)
- R.V. Kohn (New York University)
- C. Le Bris (Ecole Nationale des Ponts et Chaussées)
- Y. Maday (Université Pierre et Marie Curie)
- L. Nirenberg (New York University)
- A. Quarteroni (Ecole Polytechnique Fédérale de Lausanne)
- C. Schwab (ETH Zürich)
- R. Temen (Université de Paris-Sud)
- R.S. Varga (Kent State University)
- E. Zuazua (Universidad Complutense de Madrid)

The organisers of the event are Professor Phillippe G. Ciarlet (Université Pierre et Marie Curie) and Professor Roderick Wong (City University of Hong Kong). The deadline for abstracts of contributed papers is **1 July 2002**. Abstracts should be no more than one page, typed in

LaTeX or TeX and sent to the Conference Secretary by e-mail (MCLBJ@cityu.edu.hk). For further information visit the website (<http://www.cityu.edu.hk/rcms/NPDE2002/>) or contact Julia Fung, Conference Secretary, Liu Bie Ju Centre for Mathematical Sciences, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon, Hong Kong (tel: 852 2788 9816, fax: 852 2788 7446, e-mail: MCLBJ@cityu.edu.hk).

EPSRC POSTDOCTORAL AND ADVANCED FELLOWSHIPS

Advanced Fellowships are designed to support outstanding young researchers normally under 35 years of age. Postdoctoral Fellowships in mathematics aim to help talented young mathematicians to establish an independent research career. The recipients of this year's fellowships are as follows:

Advanced Fellows:

Dzamonja M. (East Anglia) *Approximation families and related constructions*

Joyce D.D. (Oxford) *Singularities of special lagrangian submanifolds in Calabi-Yau manifolds*

Kozlovski O.S. (Warwick) *Research in complex dynamics/fast dynamo theory*

Krauskopf B. (Bristol) *Nonlinear dynamics and global bifurcations in semicolour laser systems*

Marklof J. (Bristol) *Equidistribution, exponential sums and quantum chaos*

McQuillan M.L. (Glasgow) *Non-commutative Mori theory*

Ross S.F. (Durham) *Causality, locality and singularities in new approaches to string theory*

Tateo R. (Durham) *A unified framework for integrable quantum field theories and ordinary differential equations*

Topping P.M. (Warwick) *Nonlinear geometric partial differential equations and their applications*

Walker S.G. (Bath) *The construction, study and application of new Bayesian nonparametric models*

Postdoctoral Fellows:

Austing P.J. (Oxford) *Written indices, D-particles and matrix models of M-theory*

Dunning T.C. (York) *Functional relations and their solutions in integrable quantum field theory*

Hale M.J. (Queen Mary) *Spectral triples for quantum groups*

Harkins A. (Cambridge) *Problems in the theory of combable groups*

Holloway A.L. (Oxford) *Connections between varieties for modules and modular representations of finite groups*

Matessi D. (Imperial College) *Exploring some conjectures concerning Lagrangian submanifolds inspired by mirror symmetry*

Perkins S.B. (UMIST) *Coxeter groups and length functions*

DEPARTMENTAL NEWS

Sussex University, School of Mathematical Sciences The following promotions and awards of title have been made: Dr D.S. Coad and Dr E. Shargorodsky to Senior Lecturer, Dr C.J. Mulvey to Reader, and Dr P.J. Bushell to Emeritus Professor.

VISITORS TO THE UK

The London Mathematical Society is once again compiling a list of mathematicians visiting the UK during the academic year. It is felt that this is a valuable service to the mathematical community. Heads of Departments have been asked to collect details of overseas visitors to their department during the academic year 2001-02, whose stay will not be less than one month. The information should be sent to the London Mathematical Society (De Morgan House, 57-58 Russell Square, London WC1B 4HS, e-mail: taylor@lms.ac.uk) no later than **Friday 12 October 2001**. The list will appear in the December *Newsletter*. Visitors spending a term or more at a UK institution will, as usual, receive complimentary issues of the *Newsletter*.

THE MATHEMATICS, STATISTICS & OR NETWORK AND THE FUND FOR THE DEVELOPMENT OF TEACHING AND LEARNING

Members will have read in the *Newsletter* (No. 293) of the involvement of the LTSN Mathematics, Statistics & OR Network in the LMS regional meeting at Birmingham in February 2001. LTSN's remit includes keeping the community informed of developments relating to learning and teaching and helping interested parties in benefiting from them. One such development is imminent. The Fund for the Development of Teaching and Learning (FDTL) is a large programme to support learning and teaching. Phase 4 of the programme is due to be announced shortly for 13 disciplines including Mathematics, Statistics and Operational Research (MSOR).

The aim of the FDTL programme is to stimulate developments in learning and teaching and to secure a wide take-up and implementation of good practice. Applications will be invited from university departments and from consortia led by such departments.

In 1999 FDTL Phase 3 allocated £17 million, with 3-5 projects per discipline receiving an average of £180,000. Large scale projects (consortia) could apply for up to £250,000 over 3 years, medium scale projects up to £150,000 and small scale projects (two years) £75,000.

In Phase 4 there will be a two-stage bidding process, where expressions of interest which are successful will be invited to submit full applications. The programme will be looking for bids that demonstrate activities directly related to learning and teaching priorities and plans for the dissemination and application of project outcomes. Activities addressing employability and access were particularly welcomed in Phase 3, and bidders were encouraged to collaborate with their LTSN subject centres. In Phase 4 this will probably be a requirement,

particularly in relation to dissemination.

The Mathematics, Statistics & OR Network has been allocated additional funding to support the preparation of MSOR bids and encourage cross-departmental collaboration, and has already been asked to advise HEFCE on the priority needs of the MSOR community. Our perception is that these are assessment, staff development, service teaching and the school/university interface. This perception is based upon:

- preliminary findings of a project we have commissioned to carry out a detailed analysis of QAA reports;
- the views of members of our Executive Committee who were involved in the subject review process, one of whom helped to write the subject overview report;
- a needs analysis carried out with Heads of Departments through their annual conferences in 2000 and in 2001;
- a needs analysis based on a) a survey of departmental mathematics contacts and b) five regional meetings with statistics/OR contacts held last autumn;

The MSOR discipline will be in competition with 12 others for FDTL Phase 4 funding. Although up to £250,000 could be available to stimulate developments in teaching and learning in your department, bids must address the priorities of our discipline and be of the highest quality. We expect further details to be announced in the autumn, and would encourage you to contact us if you are looking for bidding partners.

Pam Bishop,
LTSN Mathematics, Statistics & OR
Network
(e-mail: info@mathstore.ac.uk)

LONDON MATHEMATICAL SOCIETY
Spitalfields Day

THE ISAAC NEWTON INSTITUTE
in association with
LOUGHBOROUGH UNIVERSITY

Friday 30 November 2001

ALGEBRAIC ASPECTS OF INTEGRABILITY

Organisers: Yu. Berest (Cornell), A.P. Veselov (Loughborough)

All lectures will take place in
Room W 0 04 in the Sir David Davies Building

- | | |
|---------------|---|
| 13.30 - 14.20 | P. Etingof (MIT)
<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 Isaac Newton 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>).

CONFERENCE ON THE TEACHING OF MATHEMATICS

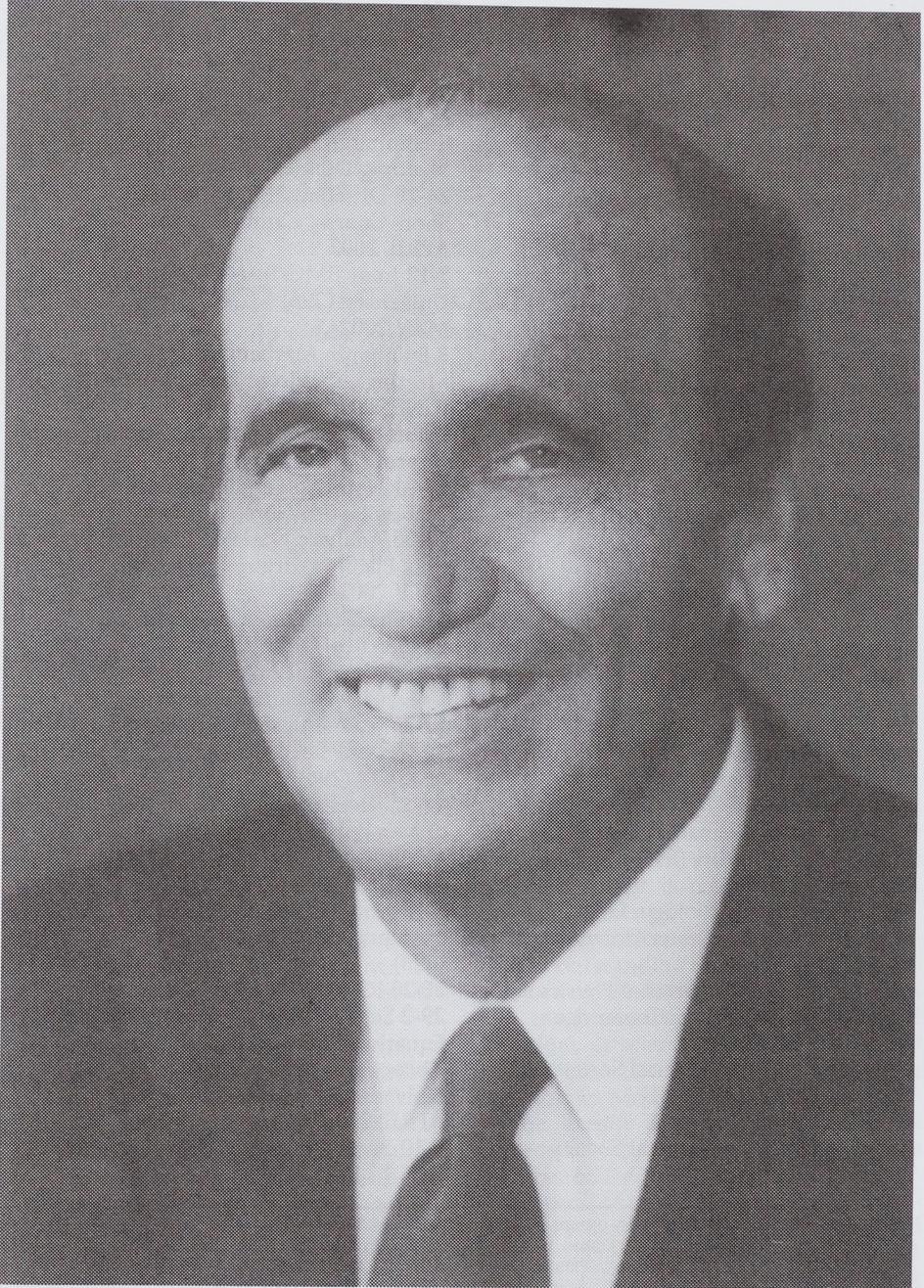
The 2nd International Conference on the Teaching of Mathematics (at the undergraduate level) will be held in Chersonisos, Crete, Greece, from 1 - 6 July 2002. The Conference aims to bring together University teachers of mathematics committed to introducing innovative teaching methods and researchers in mathematics education. The conference presentations will be centered on the following themes:

- Educational Research: Results of current research in mathematics education and the assessment of student learning. Access and equity
- Technology: Effective integration of computing technology (Calculators, Computer Algebra Systems, WWW resources) into the undergraduate curriculum
- Innovative Teaching Methods: Innovative ways of teaching undergraduate mathematics, such as cooperative and collaborative teaching. Writing in mathematics; laboratory courses
- Curricula Innovations: Revisions of specific courses and assessment of the results. History of mathematics; innovative applications; project driven curricula
- Preparation Of Teachers: Trends in teacher education. Changing needs of teachers
- Mathematics and other Disciplines: The effects of changes in the teaching of mathematics on other fields. The needs of client disciplines; interdisciplinary courses
- Distance Learning: Distance learning technologies (networking, tele-education) for teaching and learning mathematics. Current hardware and software delivery media; educational materials. Visions for the future

The invited speakers will be:

- Hyman Bass and Deborah Ball (University of Michigan, USA)
- Jean Pierre Bourguignon (Institut des Hautes Etudes Scientifiques, France)
- Miguel De Guzman (Universidad Complutense de Madrid, Spain)
- Oh Nam Kwon (Ewha Women's University, Korea)
- Joanna Mamona-Downs (University of Macedonia, Greece)
- Verdiana Masanja (University of Dar es Salaam, Tanzania)
- Alan H. Schoenfeld (University of California, USA)
- Man Keung Siu (University of Hong Kong, China)
- Dave Smith (Duke University, USA)
- Tosun Terzioglu (Sabanci University, Turkey)

The organisers of the conference are Ignatios Vakalis (Capital University, USA, chair), Deborah Hughes Hallet (University of Arizona, USA), Christos Kourouniotis (University of Crete, Greece), Constantinos Tzanakis (University of Crete, Greece). The deadline for electronic submission of abstracts for presentations at the conference is 10 November 2001, and for early registration to the conference 31 January 2002. More information can be found on the web (<http://www.math.uoc.gr/~ictm2>) or by contacting Ignatios Vakalis (ivakalis@capital.edu) or Christos Kourouniotis (chrisk@math.uoc.gr).



I. KAPLANSKY
HONORARY MEMBER 1987

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>).

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

- 2-3 North British Functional Analysis Seminar, University of York (297)
- 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)
- 11 The Future of Theoretical Physics and Cosmology Conference, Cambridge University (297)
- 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)
- 24-28 Differential Equations LMS/EPSC Short Course, Cambridge University (297)

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 Plank Institute, Bonn (288)

JULY 2002

- 1-6 The Teaching of Mathematics Conference, Crete, Greece (297)
- 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 (297)
- 29-2 Sept Nonlinear Partial Differential Equations International Conference - Theory and Approximation, City University of Hong Kong (297)

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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