# THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No.161

May 1989

### FORTHCOMING SOCIETY MEETINGS

Thursday, Friday 18-19 May 1989, Liverpool Representations of Algebras

Friday 16 June 1989, Burlington House V.F.R. Jones, H.R. Morton Friday 20 October 1989, Burlington House Meeting on Stochastic Analysis Friday 17 November 1989, Royal Society R.M. May, J.D. Murray

#### SIR HAROLD JEFFREYS

Sir Harold Jeffreys, FRS, who was elected a member of the London Mathematical Society on

10th June 1915, died on 18th March 1989. He served on Council from 1930-32.

### LMS 1989 HONORARY MEMBER

At the Society Meeting on 17th March 1989, Professor Shimshon Avram Amitsur was elected an Honorary Member of the London Mathematical Society in recognition of his numerous contributions to algebra.

#### VISIT OF DR U.N. BHOSLE

Further details of Dr Bhosle's visit (announced in the April Newsletter) are now available; please note the changes of date. Dr Bhosle will arrive in Liverpool on 3 May and leave at the beginning of June. She will give talks as follows; 'Parabolic G-bundles on curves', Oxford, 16 May, 2.00pm, Cambridge, 23 May, 2.30pm; 'Pencils of quadrics in characteristic 2', Liverpool, 26th May, 4.00pm.

The visit is being financed by a Visiting Fellowship from SERC.

Visitors should confirm lecture arrangements with the Departments concerned; for general information on Dr Bhosle's visit, please contact Dr P.E. Newstead, Department of Pure Mathematics, University of Liverpool, PO Box 147, Liverpool, L69 3BX (Tel: 051 – 794 4040 or 4043, E-mail: SU23@LIV.IBM).

### **VISIT OF PROFESSOR J.M. MONTESINOS**

Professor J.M. Montesinos, of Universidad Complutense, Madrid, will visit this country from 14 to 28 May 1989, with support from the LMS scheme 2 for visitors.

He will be based at Liverpool University, where he will talk on Monday, 15 May at 4.00pm, on 'Knots and covering spaces'. He will also talk on

the same topic in Durham on Friday 19 May, and in Bangor at 2.00pm on Monday 22 May, on 'Tessellations'.

The talks are open to all members of the London Mathematical Society. Members are advised to contact the department for confirmation.

#### **ELECTION OF FELLOWS**

Amongst those elected as Fellows of the Royal Society at its meeting on 16 March 1989 were the following:

Professor John Macleod Ball, Professor of Mathematics at Heriot-Watt University, Edinburgh.

Dr Peter Goddard, Lecturer in the Department of Applied Mathematics and Theoretical Physics in the University of Cambridge, and Fellow of St John's College, Cambridge. Professor Michael Boris Green, Professor of Physics and SERC Senior Fellow at Queen Mary College in the University of London

Dr Francis Patrick Kelly, Reader in Systems in the Faculty of Mathematics in the University of Cambridge.

Professor Andrew John Wiles, Royal Society Research Professor at the Mathematical Institute in the University of Oxford.

### **CHANGES IN SCHOOL MATHEMATICS**

The Council of the Society is very concerned about how it can act most effectively to advise and influence all parties concerned with the current changes taking place in the teaching of mathematics in schools, and the consequent effect of these changes on the teaching of mathematics in universities. Over the next few months, Council

hopes to discuss this whole question comprehensively. If you have views or suggestions on either the issue itself, or how the Society can contribute to the debate on it, please send them to the President of the Society, J.H. Coates, at D.P.M.M.S., 16 Mill Lane, Cambridge, CB2 1SB, as soon as possible.

### **COUNCIL AND GENERAL SECRETARY**

On July 1 of this year, Dr C.J. Mulvey of Sussex University will be retiring as Council and General Secretary of the London Mathematical Society, after serving the Society magnificently in this arduous post for the last six years. The work of Council and General Secretary is central to the smooth running of the Society, and Christopher's term of office has coincided with a considerable broadening of the Society's activities. Christopher has faced up to the many demands on his time and energy with remarkable dedication and skill, and he has done much to modernise the affairs of the

Society, and to make Council more business like. In addition, he has willingly taken on other major tasks for the Society, including playing a central role in the Euromath project. The Society is much in debt to Christopher, and we hope that he will remain closely associated with us in the future. Christopher's successor as Council and General Secretary will be Professor R.Y. Sharp of Sheffield University.

J.H. Coates President

### IRISH MATHEMATICAL SOCIETY

The Second September meeting of the Irish Mathematical Society will be held on Thursday and Friday 7 to 8 September 1989 in Maynooth. The principal speakers are F. Almgren (Princeton) Supercomputers and Minimal Surfaces; S.K. Donaldson (Oxford) Yang-Mills Theory and Four-Manifolds and J. Lewis (DIAS).

The main talks will be held in the Physics Hall at Maynooth College. Contributed short talks are invited. Overnight accommodation is available in Maynooth. For further information, contact A.G. O'Farrell, Department of Mathematics, Maynooth College, Co. Kildare, Ireland.

### PROGRAMME AND CONFERENCE FUND

Members are reminded that the Society's Programme and Conference Fund is used to provide financial support for visitors to the UK and for conferences. The fund is administered by the Society's Programme Committee and information about the proposals it is willing to consider was given in the January 1989 issue (No. 157) of the

Newsletter. The Meetings and Membership Secretary, A.R. Pears, Department of Mathematics, King's College London, Strand, London WC2R 2LS, telephone 01-836-5454, will be pleased to discuss proposals informally with potential applicants and to give advice on submission of an application to the Society.

### LMS MAY MEETING

### **THURSDAY – FRIDAY** 18 – 19 MAY 1989

### UNIVERSITY OF LIVERPOOL REPRESENTATIONS OF ALGEBRAS

### Thursday 18 May

2.20 p.m. Opening Session

2.30 p.m. C.M. Ringel From representations of quivers to quantized Lie algebras, via Hall polynomials and Hall algebras

3.30 p.m. Tea

4.00 p.m. A.H. Schofield Semi-invariants of quivers

5.00 p.m. A. Skowronski Tame self-injective algebras

### Friday 19 May

9.15 a.m. Yu. A. Drozd Categorical methods in represen-

tation theory

10.15 a.m. W.W. Crawley-Boevey Regular modules for tame

hereditary algebras

11.15 a.m. Coffee

11.45 a.m. I. Reiten Tilting and contravariantly finite

subfunctors

Lectures will take place in Room 206
Mathematics and Oceanography Building,
Brownlow Hill, Liverpool

All interested are very welcome

### **ANALYSIS AND OPTIMIZATION OF SYSTEMS**

The Ninth International Conference on Analysis and Optimization of Systems will be held from 12 to 15 June 1990 in Antibes, France. The topics are: Control of linear and nonlinear systems; Optimization and optimal control theory; Stochastic systems; Signal processing.

Authors are invited to submit original papers by 1 October 1989. For further information contact, IN-RIA, Service des Relations Exterieures, Bureau des Colloques, Domaine de Vlouceau, Rocquencourt, B.P. 105, 78153 Le Chesnay Cedex, France.

### **CENTRO INTERNAZIONALE MATEMATICO ESTIVO**

'Methods of Nonconvex Analysis' will be the first 1989 C.I.M.E. Session held from 15 to 23 June 1989 at Lake Como, Italy. 'Microlocal Analysis and Applications' is the second 1989 C.I.M.E. Session held from 3 to 11 July 1989 at Pistoia, Italy.

Deadline for applications for both sessions is 15 May 1989. For further information write to Fondazione C.I.M.E., c/o Istituto Matematico U. Dinni, Viale Morgagni, 67/A, 50134 Firezene, Italy. Tel. 055-4118985. E-mail CIME@IFIIDG.BITNET.

#### **VISIT OF PROFESSOR D. HOFFMAN**

Professor David Hoffman of the University of Amherst, Massachusetts, presently visiting Paris VII, will visit the U.K. in the first week of May. His visit is supported by a grant from the L.M.S. under scheme 2. He will lecture at the University of Durham on Tuesday 2 May at 4.15 in Room CM121, Mathematical Sciences on 'Three Cheers for the Catenoid' and then at the University of

Leeds as part of a Differential Geometry Day (see below). For further details of the Durham talk, contact John Bolton (telephone 091-374 2368) or Lyndon Woodward (telephone 091-374 2379), Mathematical Sciences, University of Durham Science Laboratories, South Road, Durham DH1 3LE.

### LEEDS DIFFERENTIAL GEOMETRY DAY THURSDAY 4 MAY, 1989

A Differential Geometry Day will be held in the School of Mathematics, University of Leeds on Thursday 4 May, 1989. The programme will be as follows:

- 10.15 Coffee outside the Mathematics Staff Common Room, level 9.
- 10.45 P. Baird (Leeds), *Harmonic morphisms and three dimensional topology.*
- 11.50 M. Mamone Capria (visiting Oxford), Yang-Mills Fields on HP2.
- 2.30 J.D.S. Jones (Warwick), Cyclic Cohomology and index theory.
- 3.30 Tea outside the Mathematics Staff Common Room, level 9
- 4.00 D. Hoffman (Amherst), The design of new minimal surfaces and their application to science.

The first three talks take place in Roger Stevens Lecture Theatre 5, over the bridge from Mathematics.

The last talk, which is a joint Pure Mathematics Colloquium will take place in the Roger Stevens Lecture Theatre 7 and should include a video.

Further details from John C. Wood, School of Mathematics, University of Leeds, Leeds LS2 9JT, telephone 0532-335106 (or 335130/335140). e-mail: pmt6jcw@uk.ac.leeds.cms1.

# LONDON MATHEMATICAL SOCIETY POPULAR LECTURES

Professor F.G. Leppington Asymptotic Approximations Simplified

Dr R.J. Wilson Stamping Through Mathematics

Friday 23 June 1989
Room A,
The University Lecture Rooms Building,
University of Liverpool
at 5.00 pm

Friday 30 June 1989
Great Hall, Sherfield Building,
Imperial College, Exhibition Road, London SW7
at 7.30 pm

All interested are welcome.

The lectures are intended to be suitable for a general audience and no specific mathematical knowledge will be assumed. Although the talks are not primarily intended for professional mathematicians, everyone is welcome and some members may wish to apply for tickets for friends and relatives.

Admission to the lectures will be by ticket only. Applications for the lectures on Friday 23 June at University of Liverpool should be sent to Dr I.R. Porteous, Department of Pure Mathematics, University of Liverpool, PO Box 147, Liverpool L69 3BX. Applications for the lectures on 30 June at Imperial College London should be sent to Miss S.M. Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL.

A stamped-addressed envelope would be much appreciated. There is no charge for admission.

# Cambridge

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For a complete list of all books available to LMS members at 25% discount please write to Jacqueline Arthurs at the address below.



The Edinburgh Building, Cambridge CB2 2RU

### LONDON MATHEMATICAL SOCIETY NOTICE OF GENERAL MEETING

There will be a general meeting of the Society on Friday, 16 June 1989 at 3.30 pm in the Meeting Room of the Geological Society. Burlington House, Piccadilly, London, W1, to consider a proposal by the Council of the Society to delete the existing By-Law II.1 and to substitute that printed below.

The new By-Law II,1, if accepted, would leave unchanged the annual subscription of individual members for 1989-1990, and would increase the prices of the Bulletin, the Journal and the Proceedings to individual members for 1989-1990 by £1.00.

### Text of the Proposed By-Law II,1

The annual subscription to the Society of Ordinary Members for the 1989-90 session shall be £10.00. The prices of the Society's periodicals to Ordinary Members shall be: Proceedings £10.00 per volume, Journal £10.00 per volume, Bulletin £10.00 per volume.

> C.J. Mulvev Council and General Secretary

### 1989 HARDY LECTURE TOUR

Professor V.F.R. Jones, the Society's 1989 Hardy Lecturer, will give lectures at the following places.

Friday 26 May Cambridge Monday 29 May Oxford Wednesday 31 May Warwick Friday 2 June Liverpool

Monday 5 June Yorkshire Pure Mathematics Colloquium,

Sheffield

Wednesday 7 June Glasgow Friday 9 June

Edinburgh Mathematical Society, Edinburgh Monday 12 June North British Functional Analysis Seminar,

Lancaster

Wednesday 14 June Durham

Friday 16 June London Mathematical Society, London

Monday 19 June Swansea Wednesday 21 June Sussex

A notice giving more information is enclosed with this Newsletter

Meetings and Membership Secretary

### FOURTH ANALYSIS CONFERENCE IN CORK

A three-day conference on Operator Theory and Operator Algebras will be held in University College, Cork from 17 May to 19 May 1989. The principal speakers will be Joel Anderson (Penn State), Man-Duen Choi (Toronto), Edward Effros (U.C.L.A.) and Gert Pedersen (Copenhagen).

There will be a registration fee of *IR£*10. If required assistance will be given in arranging accommodation. Further information may be obtained by writing to the organizer: Dr G.J. Murphy, Department of Mathematics, University College, Cork, Ireland.

#### **ROLLO DAVIDSON TRUST**

The Trustees of the Rollo Davidson Trust give notice that they have awarded the Rollo Davidson Prizes for 1989 as follows.

To Dr Geoffrey R. Grimmett (University of Bristol, UK), for his work on random fields, percolation

theory, random graphs and related topics.

To Dr Rémi Léandre (University of Bescanon, France), for his contributions to Atiyah-Singer theory, and for his work on small-time asymptotics for the densities of degenerate diffusions.

#### 1989 LIST OF MEMBERS

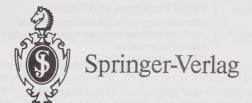
The 1989 List of Members should accompany this Newsletter. My thanks to all members who returned their forms. As far as possible each individual member's entry contains precisely the information supplied by the member. Some alterations have, however, been necessary to achieve the consistent format agreed by Council, and others have been forced by space limitations.

If any member finds an error in his/her entry which is not attributable to these causes, or if there are any subsequent changes to the particulars (such as extra degrees gained, or change of address) please inform me, as soon as possible.

S.M. Oakes Administrator

Mathematics graduate required to join Springer-Verlag's mathematics editorial in Heidelberg from September 1, 1989.

Applicants should be under 30 years of age, native English-speaking with a good mastery of German and a working-knowledge of Russian. Some prior experience related to publishing will be useful but not essential. Applications including c.v. should be addressed to:



Ms. Christa Voss Personnel Dept. Springer-Verlag Tiergartenstr. 17 6900 Heidelberg

## NEW MATHEMATICS TITLES FROM CHAPMAN AND HALL

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### **Engineering Mathematics** A Programmed Approach

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### Numerical Analysis, 4th Edition R L Burden and J D Faires, Youngstown State University

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Percy Alexander MacMahon (1854-1929) was born into a military family and educated at Woolwich. He served in India and Malta for five years before returning to teach in several military Academies. He was an expert in combinatorial analysis and its application to enumerative problems of many kinds, such as the partition of numbers and the counting of Latin squares. He was elected an FRS in 1890, and was the Society's sixteenth President, from 1894-1896.

#### DIARY

The diary lists Society meetings and other events publicised in previous issues of the Newsletter.For further information, refer to the figure in brackets, which is a cross reference to the LMS Newsletter Number.

1989

| 1989           |  |
|----------------|--|
| MAY            |  |
| 1-31           | Geometry of Loop Spaces, West Germany (156)  |
| 6              | History of Mathematics, Bristol (156)  |
| 8-11           | Structured Methods, U.S.A. (160)   |
| 12             | Lighthill's Retirement Symposium, London (159)   |
| 12-13          | Groups in Galway, Ireland (157)  |
| 18-19          | LMS Meeting, Liverpool   |
| 22-25<br>23-27 | Dublin Differential Equation, Ireland (156)  |
| 31–2 Jun       | Computing and Information, Canada (153)  Blow-up and Extinction for Parabolic and other Systems, Heriot-Watt (157) |
|                | blow-up and Extinction for Parabolic and other Systems, Heriot-watt (157)  |
| JUNE           |  |
| 1-3            | CMS Summer Meeting, Canada (160)   |
| 5-9            | Mathematical Analysis, Spain (157)   |
| 8-16<br>12-16  | Probability Conference, Singapore (155) (160) Fourier Analysis Workshop, Sussex (160)                              |
| 12-16          | Geometry of Banach Spaces, Austria (154)   |
| 14-16          | Nonlinear Control Systems Design, Italy (150)  |
| 15-17          | General Topology, U.S.A. (160)   |
| 16             | LMS Meeting, London  |
| 23             | LMS Evening of Popular Lectures, Liverpool   |
| 25-30          | Geometry and Analysis of Loop Spaces, Hungary (159)  |
| 27-30          | General Topology and Applications, Oxford (160)  |
| 30             | LMS Evening of Popular Lectures, London  |
| 30-11 Jul      | L-functions in Arithmetic, Durham (156)  |
| JULY           |  |
| 2-7            | Gregynog Symposium on Differential Equations (156)   |
| 3-7            | British Combinatorial Conference, East Anglia (146)  |
| 3-7            | Annual Meeting of the Australian Mathematical Society, Australia (157)   |
| 3-7            | International Category Theory, Bangor (157)  |
| 3–21<br>6      | Séminaire de Mathématiques Supérieures, Canada (156) (157)   |
| 10-14          | Skew Fields, London (160) Mathematics 16-20, Nottingham (160)  |
| 10-14          | Dynamics, Bifurcations and Singularity Theory, Warwick (153)   |
| 10-14          | Combinatorial Mathematics and Computing, Australia (152)   |
| 11-21          | Geometry of Low-dimensional Manifolds, Durham (156)  |
| 21-31          | Image analysis, Durham (156)   |
| 25-6 Aug       | Logic, Algebra and Computation, West Germany (160)   |
| 27-29          | Cauchy and the French Mathematical World, France (152)   |
| 29-12 Aug      | Groups, St Andrews (156)   |
| AUGUST         |  |
| 13-18          | Topological Fluid Mechanics, Cambridge (160)   |
| 13-19          | Differential Equations and Applications, Bulgaria (148)  |
| 28-8 Sept      | Variational Problems in Analysis, Italy (152)  |
| SEPTEMBER      |  |
| 6-8            | Category Theory and Computer Science, Manchester (154)   |
| 18-23          | A Century of Geometry, France. (160)   |
| OCTOBER        |  |
| 20             | LMS Meeting, London  |
| NOVEMBER       |  |
| 17             | LMS Meeting, London  |
| Die Ment       |  |

The Newsletter is published monthly except in August. Items and advertisements for inclusion in the Newsletter should be sent to the Editor, Susan Oakes, London Mathematical Society, Burlington House, Piccadilly, London WIV 0NL (telephone 01-437 5377, fax 01-439 4629), to arrive before the first day of the month prior to publication.