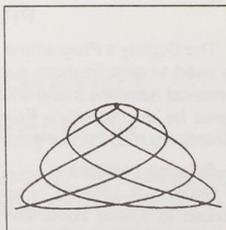


# THE LONDON MATHEMATICAL SOCIETY NEWSLETTER



**No. 142**

**July 1987**

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**Advertising:** Susan Oakes, LMS Office, Burlington House, Piccadilly, London W1V 0NL. Tel: 01-437 5377.

The *Newsletter* is published monthly, except in August and September. Items for inclusion (with the exception of advertising material) should be sent to the Editor, to arrive before the tenth day of the month prior to publication. Advertisements, and general enquiries about the Society, should be addressed to Susan Oakes at the LMS Office.

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## Forthcoming Meetings

Friday 16 October 1987, Burlington House  
Friday 20 November 1987, Burlington House

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### LMS EDITOR

The General Purposes Committee of the London Mathematical Society has decided that the LMS Newsletter no longer requires a Mathematician as

Editor. The administrator of the LMS, Susan Oakes, will take over as Editor of the Newsletter in the near future.

### FACSIMILE

Items for the Newsletter may be sent to the

Editor by Facsimile on 091-284 7361.

## PROGRAMME AND CONFERENCE FUND

The Society's Programme and Conference Fund is used to give financial support to various mathematical activities in the UK. The fund is administered by the Society's Programming Committee. Grants are made under three main headings.

### 1. Scheme 1 Visitors

Under this scheme, a speaker from abroad is invited to spend about two weeks in the UK to address a Society Meeting and to give lectures in three or four separate institutions. The Society pays the cost of the visitor's travel to and from the UK and for accommodation in London, and the host institutions are expected to share the cost of travel within the UK and local accommodation. LMS Council is anxious that greater use should be made of this scheme to enhance, by such visits, the benefit of LMS membership to members who are not easily able to attend London meetings. In planning the Society's future meetings, Programme Committee will have this scheme in mind, and suggestions from UK institutions for visitors they would like to receive but whose expenses they could not normally afford are very strongly encouraged. Programme Committee tries to plan Society Meetings at least six months in advance; this should be kept in mind when making suggestions under this scheme.

### 2. Scheme 2 Visitors

Under this scheme, some financial support is provided for visitors to the UK who do not address a Society Meeting but will give lectures in at least three separate institutions. Exceptionally support under this scheme might be provided for a speaker addressing a meeting which is regional in scope. The LMS contribution under this scheme will be for the visitor's travelling expenses to and from some convenient base in the UK. Host institutions are expected to share the cost of travel within the UK and local accommodation. All arrangements for a

visit supported under this scheme are the responsibility of the member who makes the application. Applications can be made at any time, but should normally be made at least two months before the starting date of the proposed visit, so that the lectures to be given can be publicized in the Society's Newsletter. The Society believes this scheme to be very useful, and applications are strongly encouraged.

### 3. Financial Support for Conferences

Grants are made from the Programme and Conference Fund to the organizers of conferences to be held in the UK. Funds for this purpose are limited and Programme Committee tends to give priority to small meetings where an LMS grant can be expected to make a significant contribution to the viability and success of the meeting. Support of larger meetings of high quality is not ruled out but for such meetings an LMS grant would normally cover only part of the total cost. An Application Form, obtainable from the Meetings and Membership Secretary, sets out conditions under which grants are normally made and requests the information Programme Committee usually requires when considering an application.

Further information about these activities of Programme Committee can be obtained from the Meetings and Membership Secretary, A.R. Pears, Department of Mathematics, King's College, Strand, London WC2R 2LS, telephone number 01-836-5454, who will be pleased to discuss proposals informally with potential applicants and to give advice on submission of an application to the Society. The next meeting of Programme Committee will be held in September and it would be a great help if suggestions and applications to be considered at that meeting could be submitted to the Meetings and Membership Secretary no later than 31 August 1987

## LMS SPITALFIELDS LECTURES

The second Spitalfields Lectures will be given on Wednesday, 15th July, 1987 at the University of Sussex. These are colloquium style lectures, intended to be accessible to a general mathematical audience, delivered by members of the Symposium on Low Dimensional Topology which is being held at Sussex in July 1987.

The programme is:

10.30 Coffee

11.00 C. Gordon (Austin)

11.45 M. Scharlemann (Santa Barbara)

12.30 Lunch

2.00 S. Donaldson (Oxford)

3.00 Tea

3.30 W. Thurston (Princeton)

All the lectures will be held at the University of Sussex. An informal lunch is available at £2.00 per person. Bookings and payment for the lunch must be made by 6th July to Pauline Steele, Mathematics Division, University of Sussex, Falmer, Brighton BN1 9QH. Cheques should be made payable to Sussex Topology Conference. All interested are welcome to attend. For further information, please write to the organiser, Roger Fenn, at the same address.

**University of Leeds**  
**DEPARTMENT OF PURE MATHEMATICS**  
**POSTDOCTORAL RESEARCH FELLOW**

Applications are invited for an SERC-funded research fellowship to work on Rings of Differential Operators with Applications to Lie Algebras. A knowledge of the algebraic theory of rings of differential operators and/or representation theory of semi-simple Lie algebras is preferred, but applications from persons with experience in the more geometric or analytic aspects of rings of differential operators are welcome.

Applicants should possess a Ph.D. in Pure Mathematics, or its equivalent, or expect to receive such a degree in the near future. The post is for a fixed period of up to three years, starting on 1 October, 1987, or as soon as possible thereafter. The initial salary will be up to £11,015 pa according to qualifications and experience. Potential applicants are asked to contact PROFESSOR J.C. ROBSON, Head of the Department of Pure Mathematics, University of Leeds, Leeds LS2 9JT, England, from whom further details may be obtained.

**MATHEMATICAL SOCIETIES AND RECIPROCITY**

We have reciprocity agreements with the following Societies and further details and application forms may be obtained from the addresses shown.

American Mathematical Society  
PO Box 6348, Providence, RI 02940, U.S.A.

Australian Mathematical Society  
Dr B.D. Jones, Department of Mathematics, University of Queensland, St. Lucia, Qld 4067, Australia

Societe Mathematique de Belgique  
c/o Professor G. Hirsch, Avenue Charles Woeste 317-Bte 11, B-1090 Brussels, Belgium

Canadian Mathematical Society  
577 King Edward, Suite 109, Ottawa, Ontario, Canada K1N 6N5

Dansk Matematisk Forening  
H.C. Orsted Institut, Universitetsparken 5, DK 2100 Kobenhavn 0, Denmark

Deutsche Mathematiker Vereinigung  
J.Flum, Alberstrasse 24, 7800 Freiburg, Federal Republic of Germany

Societe Mathematique de France \*  
B.P. 126-05, 75226 Paris Cedex 05, France

Indian Mathematical Society  
The Secretary, Dept of Mathematics, Jadavpur University, Jadavpur, West Bengal, India

Unione Matematica Italiana  
Professor P.L. Papini, The Secretary, Dipartimento di Matematica, Universita, Piazza Porta S. Donata 5, 40127 Bologna, Italy

New Zealand Mathematical Society  
Dr D.R. Breach, The Secretary, NZMS, Dept of Mathematics, University of Canterbury, Private Bag, Christchurch New Zealand

Nigerian Mathematical Society \*  
c/o Professor J.O.C. Ezeilo, Dept of Mathematics, University of Nigeria, Nsukka, Nigeria

Norsk Matematisk Forening  
Matematisk Institutt, PO Box 1053, Blindern, N-0316 Oslo 3, Norway

South East Asian Mathematical Society  
Lim Chong Keang, President, SEAMS, Dept of Mathematics, University of Malaya, Kuala Lumpur, Malaysia

Svenska Matematikersamfundet  
Secretary, Dept of Mathematics, University of Umea, 901 87, Umea, Sweden

Wiskundig Genootschap  
Secretary, Dept of Mathematics and Informatics, University of Technology, PO Box 356, 2600 AJ Delft, The Netherlands

\* Apply to the Administrator at the LMS Office

## LMS RESEARCH GRANTS

The London Mathematical Society has established a fund from which, for an initial trial period of three years, grants may be made to mathematicians for the support of research work that would otherwise be unlikely to take place and where there is little likelihood of grant aid from other sources. The grants are intended for the assistance of individuals who may have been prevented by routine duties or any like cause from undertaking or completing a research programme. They are not available simply as a replacement for past support from other sources. The grants are intended primarily

for incidental expenses, such as travel and subsistence away from home, but other requests connected with research projects will be considered. Grants from this fund will be of at most £1000 and will only exceptionally exceed £500. The fund will be administered by the Society's Programme Committee. Members who wish to make an application for support from this fund should contact the Society's Administrator, Miss S.M. Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL, who will supply an Application Form.

## GEOMETRY IN PHYSICS III

A one-day meeting, being the second conference on this theme, in which mathematicians and physicists present reviews of recent progress in some geometrical aspects of theoretical physics.

Speakers will include: M.V. Berry (Bristol), P. Cvitanovic (Copenhagen), M.B. Green (Queen Mary College, London), C.J. Isham (Imperial Col-

lege, London), I.R. Stewart (Warwick)

For further information contact A.I. Solomon or R. Quill (Conference Secretary) (0908) 653580.

The meeting is sponsored by the London Mathematical Society and the Open University.

## HALLEY'S COMET

The following challenge has been issued by Albert A. Mullin on the occasion of the 25th year of his membership in The London Mathematical Society.

Show, or dispose of, the assertion that Halley's Comet can never achieve perihelion on Christmas Day.

For a reference see Query 375 in the Notices of the American Mathematical Society 34 (Feb., 1987), 303.

Replies should be addressed to A.A. Mullin, 506 Seaburn Drive, Huntsville, AL 35806, USA

## ENGINEERING MATHEMATICS

An international symposium on Engineering Mathematics and applications will be held at Beijing, China from 25-30 July 1988.

The aim of this symposium is to act as a forum for exchange of experience on engineering mathematics & its applications to electrical networks, machines, power systems, industrial automation & engineering science etc. A small exhibition for displaying new production & computer software will be held during the symposium.

All active in this field are invited to offer papers

on the listed topics.

Topics to be covered include:

- Theoretical and methodological developments of engineering mathematics
- Applications, including for example those to networks; electrical machines; power systems; hydraulic science; computer science; mathematical engineering education.

For further details write to ISEMA-88, No.1 Lane 2, Baiguang Rd, P.O. Box 2905, Beijing, China.

## COMBINATORIAL MATHEMATICS AND COMPUTING

An international conference will be held at the Australian National University, Canberra, Australia, 24-28 August 1987. It will cover all areas of combinatorial mathematics and related areas of com-

puter science. For further information, contact Dr B.D. McKay, ICCMC2, Department of Computer Science, Australian National University, GPO Box 4, Canberra, ACT 2601, Australia.

## SALEM PRIZE

The Salem Prize for 1987 was awarded to Dr Guy David and Dr Jean-Lin Journé, of the Centre National de la Recherche Scientifique (France) for their joint work on Calderón-Zygmund operators. The prize established in 1968, is given every year to a young mathematician who is judged to have done an outstanding work in the field on interest of Raphaël Salem, primarily on Fourier series and related topics. The recipient was Dr Nicholas Varopoulos in 1968, Dr Richard Hunt in 1969, Dr Yves Meyer in 1970, Dr Charles Fefferman in 1971, Dr

Thomas Körner in 1972, Dr E.M. Nikisin in 1973, Dr Hugh Montgomery in 1974, Dr William Beckner in 1975, Dr M.R. Herman in 1976, Dr S.B. Bockarëv in 1977, Dr Björn E. Dahlberg in 1978, Dr Gilles Pisier in 1979, Dr Stylianos Pichorides in 1980, Dr Peter Jones in 1981, Dr Alexei Aleksandrov in 1982, Dr Jean Bourgain in 1983, Dr Carlos Kenig in 1984, Dr Th. H. Wolff in 1985 and Dr N.G. Makarov in 1986. The jury consisted of Professor L. Carleson, Professor Y. Katznelson, Professor Y. Meyer and Professor E.M. Stein.

## COMPUTATIONAL GEOMETRY AND TOPOLOGY AND COMPUTATION IN TEACHING MATHEMATICS

The general purpose of the Congress, to be held at the University of Seville from 31st August to 4th September 1987, includes the exposition of results obtained in Topology, Geometry or Didactic Mathematics in relation to computational questions, as well as presentation of the difficulties found in the

development of software and the techniques used in order to avoid them. For further information, write to R. Ayala and A. Marquez, Departamento de Geometria y Topologia, Facultad de Matematicas, Universidad de Sevilla.

## NONLINEAR FIELDS

A research month on nonlinear classical fields will be held at Bielefeld University from July 7-31, 1987. This informal research month will have emphasis on exchange of ideas and developments of joint research projects. It includes a Conference

on Nonlinear Fields from July 7-10, 1987.

Further details are available from J. Stubbe, Universitaet Bielefeld, Fakultae fuer Physik/BiBos, Postfach 8640 D-4800 Bielefeld 1.

## SEPTEMBER NEWSLETTER

An additional Newsletter may be published in September. If a September Newsletter is published

then the deadline for items will be 10 August 1987.

## THE ORBIT METHOD IN REPRESENTATION THEORY

A conference in Harmonic Analysis on Lie Groups will be held at the University of Copenhagen, from 29 August to 2 September 1988.

The list of speakers includes: M.Duflo (Paris), A.A. Kirillov (Moscow), B.Kostant (MIT), L.Pukanszky (Univ. of Pennsylvania), M.Vergne (MIT &

CRNS)

For more information write to Niels Vigand Pedersen, Mathematics Department, University of Copenhagen, Universitetsparken 5, 2100 Copenhagen, Denmark

## TRANSFORMATION GROUPS

An international conference on Transformation groups will be held from 16th December until 21st December 1987 at Osaka University.

Osaka is the second largest city in Japan,

located about 30 miles south of Kyoto.

Further details may be obtained from Katsuo Kawakubo, Department of Mathematics, Osaka University, Toyonaka, Osaka 560, Japan

## SINGULARITY DAYS VIII

This meeting is to take place at the University of Southampton on 1st-2nd October 1987. Speakers will include J.Rieger (GEC), J.Stevens (Hamburg),

A.Vanderbauwhede (Gent). For details contact David Chillingworth (0703) 559122 ext 3677.

## COMPUTATIONAL AND APPLIED MATHEMATICS

An International Congress will be organised at the University of Leuven, Belgium from 25 July to 30 July 1988. The congress will concentrate on the analysis of computational techniques for solving

real scientific problems. For further information contact Professor Dr F. Broeckx, R.U.C.A., Middelheimlaan 1, B-2020 Antwerpen, Belgium.