

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No.150

May 1988

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 W1V 0NL) to arrive before the first day of the month prior to publication.

FORTHCOMING SOCIETY MEETINGS

Thursday, Friday 19-20 May 1988, Cardiff

Friday 17 June 1988, Burlington House

Friday 21 October 1988, Burlington House

Friday 18 November 1988, Royal Society

LMS INVITED LECTURES

The Society proposes to initiate a series of meetings, beginning in 1990, at which a single speaker will give a course of about ten expository lectures, examining some subject in depth, over a five day period (Monday to Friday) during a University vacation. Such meetings will be residential and open to all interested. It is intended that the text of the lectures shall be published. In addition to full expenses, the lecturer will be offered a fee of £1000 for giving the course and a further fee of £1500 on delivery of the text in a form suitable for

publication. Proposals are invited from any member who, in addition to suggesting a topic and lecturer, would be prepared to organise the meeting at the member's own institution or a suitable conference centre. Enquiries about this new initiative should be sent to the Meetings and Membership Secretary, A.R. Pears, Department of Mathematics, Kings College London, Strand, London WC2R 2LS (telephone: 01-836 5454, extn. 2852) to whom proposals should be sent no later than 31 August 1988.

MICHAEL CHARLES IRWIN

Dr Mike Irwin, Senior Lecturer in Pure Mathematics at Liverpool University, died on 11 March 1988, aged 53, after a short illness. He was elected a member of the London Mathematical Society on 19 October 1972.

Well-known internationally for his publications on manifolds, flows and smooth dynamical systems, his warmth of personality and devotion to teaching has also made an immense contribution to the work of the University whose staff he joined in 1961.

GEORGE CUNLIFFE McVITTIE

Professor George C McVittie, OBE, an astronomer who made considerable contributions to cosmological theory, died on 8 March 1988 at the

age of 83. He was a member of the London Mathematical Society from May 1949 to June 1952.

THIRD ANALYSIS CONFERENCE IN CORK

A four-day conference on Operator Theory and Operator Algebras will be held in University College, Cork from 29 June to 2 July 1988. The principal speakers will be I.D. Berg, L. Brown, J. Cuntz and Z. Słodkowski.

There will be no registration fee. If required, assistance will be given in arranging accommodation. Further information may be obtained from the organizers: R.E. Harte and G.J. Murphy, Department of Mathematics, University College, Cork, Ireland.

ROLLO DAVIDSON TRUST

At a meeting of the Trustees on 18 March 1988, Rollo Davidson Prizes were awarded to: P.H. Baxendale (Mathematics Department, University of Florida, Gainesville, U.S.A.) for his work on stochastic flows of diffeomorphisms and especially for his study of their asymptotic behaviour; and (jointly) to I.Z. Rusza (Mathematical Institute of the Hungarian Academy of Sciences, Budapest, Hungary) and G.J. Székely (Eötvös Loránd University, Mathematical Institute, Department of Probability Theory, Budapest, Hungary) for their joint contribu-

tions to algebraic probability and more especially the arithmetic of semigroups of probabilistic objects.

The Trust commenced its work in 1976, and twenty prizes have now been awarded. It is supported by royalties and individual donations. Correspondence should be addressed to its Secretary, The Bursar, Churchill College, Cambridge CB3 0DS, U.K.

ST FLOUR SUMMER SCHOOL IN PROBABILITY

This year's Summer School will run from 21 August to 7 September. The three courses, each of 15 hours, will be: A. Ancona "Quelques aspects de la Théorie du Potentiel sur les variétés"; D. Geman "Stochastic Methods in Image Analysis" and N. Ikeda "Probabilistic Methods in the Study of Asymptotics".

For further information and for a registration form write to Professor P.L. Hennequin, Département de Mathématiques Appliquées, Université Blaise Pascal (Clermont-Fd), B.P. 45, F- 63170 Aubière, France.

HOW TO PROVIDE FOR THE TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS

The Royal Society/IMA Mathematical Education Joint Committee has produced a report with the above title concerning the teaching of mathematics in schools in the context of the chronic shortage of good quality mathematics teachers.

The report can be obtained from the Publication Sales Department of the Royal Society at 6 Carlton House Terrace, London SW1Y 5AG, at a cost of £3.00.

WORKSHOP IN PROBABILITY AND GEOMETRY

The Department of Mathematics at the University of Edinburgh is organising an informal workshop, and has invited some important international contributors in these two areas to visit Edinburgh during the month of June.

Those invited from abroad include Professors P. Malliavin, Y. Meyer, M. Yor, M. Ancona, D. Dawson, P. Li, K. Burdzy, H. Rost, J.M. Bismut, N. Varopoulos, Y. Le Jan, E. Perkins, R.S. Hamilton, H. Föllmer, S. Alberverio, J.C. Taylor, K. Iwata and

J.F. Le Gall.

The organisers have requested money from the SERC. If this money is forthcoming then it should be possible to support some UK participants. Anyone interested in attending is invited to write for further details to either Professor T.J. Lyons, or Dr M. Roeckner at the Department of Mathematics, University of Edinburgh, The King's Building, Edinburgh EH9 3JZ.

UNDERGRADUATE MATHEMATICS TEACHING CONFERENCE

The fourteenth Undergraduate Mathematics Teaching Conference will be held at the University of Nottingham from 5th to 8th September 1988. The main themes this year will be:

- 1st year undergraduate mathematics textbooks: their role and the distinguishing features of good ones.
- What are the aims of a 1st year undergraduate

mathematics course and how should we plan a programme to realise them?

- Teaching and assessing investigative and project work in mathematics.

For further information write to UMTC88, Shell Centre for Mathematical Education, University of Nottingham, Nottingham NG7 2RD.

ELECTION OF FELLOWS

Amongst those elected as Fellows of the Royal Society at the meeting on 17 March 1988 were the following:

Dr Alan Lindsay Mackay. Reader in Crystallography at Birkbeck College, London.
Professor Arthur John Robin Gorrell Milner. Professor of Computation Theory in the University of Edinburgh.

Professor William Geraint Price. Professor of Applied Mechanics in Brunel University, Uxbridge.
Professor Philip Geoffrey Saffman. Professor of Applied Mathematics in the California Institute of Technology, U.S.A.
Professor Conjeevaram Srirangachari Seshadri. Senior Professor at the Institute of Mathematical Sciences, Madras, India.

LMS MAY MEETING
THURSDAY-FRIDAY 19-20 MAY 1988
UNIVERSITY COLLEGE CARDIFF
ANALYTIC NUMBER THEORY

Thursday 19 May.

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|-----------|-------------------------|--|
| 2.25 p.m. | Opening Session | |
| 2.30 p.m. | Professor R.C. Vaughan: | Waring's problem and sums of kth powers. |
| 3.30 p.m. | Tea | |
| 4.00 p.m. | Professor H. Cohen: | q-identities for Maass waveforms. |
| 5.00 p.m. | Dr D.R. Heath-Brown: | The fractional moments of the Riemann zeta-function. |

Friday 20 May

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|------------|----------------------------|---|
| 9.30 a.m. | Professor H.L. Montgomery: | The asymptotics of partitions |
| 10.30 a.m. | Coffee | |
| 11.00 a.m. | Professor N.M. Katz: | Exponential sums and differential equations |
| 12.00 noon | Professor G. Tenenbaum: | Hooley's Δ -function – Survey |

Lectures will take place in Room G03,
Mathematics Institute, Senghennydd Road, Cardiff.

All interested are very welcome.

NONLINEAR CONTROL SYSTEMS DESIGN

A symposium on Nonlinear Control Systems Design will be held in Capri, Italy from 14th to 16th June 1989. The purpose of the symposium is to present the state of the art in the design of nonlinear control systems and to explore current and future developments as well as applications to engineering problems. The programme will include

panel discussion on basic problems and invited survey papers by international leading authorities.

For further information write to IFAC Symposium, NOLCOS 89, Dipartimento di Informatica e Sistemistica, Università di Roma 'La Sapienza', Via Eudossina 18, 00184 Rome, Italy.

EUROMATH

The objective of EUROMATH is to improve the research environment for European mathematicians with the help of modern information technology. An EEC grant of about £550k has been obtained to develop various facilities including information retrieval and mathematical database; inter-personal electronic communication; document preparation and delivery.

The parent organisation of EUROMATH is the European Mathematical Trust (EMT), whose Chairman is Sir Michael Atiyah, FRS, and Dr C.J. Mulvey is Executive Secretary. EMT has formed an Advisory Board consisting of the National Co-

ordinating Committees of the member countries. The United Kingdom, represented by the London Mathematical Society and the Edinburgh Mathematical Society, is a member of EMT, and a United Kingdom Coordinating Committee has recently been formed under the Chairmanship of Professor P. Vámos of Exeter University. This committee will, among other tasks, represent the views and interests of the UK mathematical community and evaluate the facilities provided by EUROMATH. Watch this space for further information!

DYNAMICAL CHAOS

A major advance in the mathematical science of recent decades has been the discovery that systems can behave unpredictably even when their evolution is causally determined by known laws. The development of the subject is the result of a synergism between pure mathematics and natural science, aided by computation (especially graphics). An intensive international research effort is now directed at understanding in detail the main varieties of chaotic behaviour and the many settings in which they can occur.

This spectrum of ideas stimulated a Royal Society Discussion Meeting in February 1987. "Dynamical Chaos" edited by M.V. Berry, I.C. Percival and N.O. Weiss contains the papers presented at the meeting. The range of topics is wide. In mathematics, there are accounts of ways in

which the characteristics of chaotic systems can be inferred from time series, simple geometrical models exhibiting chaos, and detailed descriptions of chaos based on number theory and renormalization transformations. In biology, there are applications to normal and anomalous heart rhythms and to population dynamics. Several papers deal with turbulence. In physics, there are applications to the mechanics of the Solar System, magnetic confinement of particles, and the quantum theory of molecules.

The Royal Society is offering the publication at £16.95, a discount of approximately 15% to members of the London Mathematical Society. Orders must be sent direct to the Publication Sales Department, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG.

SCHOOLS POSTER COMPETITION £50

In order to make schoolchildren more aware of the wide range of careers available to mathematics graduates, and to help maintain the recruitment of mathematics students, Council is considering the design of a poster that will be distributed to all secondary schools in the U.K. To obtain ideas, a prize of £50 will be given for the best design of such a poster, envisaged to be A2 size.

Entries should be sent to:

The Administrator,
London Mathematical Society,
Burlington House,
Piccadilly,
London W1V 0NL

to be received by 31st July 1988. Entries will only be accepted with the understanding that Council reserves the right to use any ideas in them.

SEVENTIETH BIRTHDAY OF DAVID REES

A meeting on commutative algebra and its applications to algebraic geometry and a celebration dinner will be held at the University of Exeter on Friday 27 May and Saturday 28 May 1988 to celebrate the 70th birthday of David Rees.

The meeting, which is being supported financially by the London Mathematical Society and the Department of Mathematics of the University of Exeter, will have the following form. There will be 3 lectures with a break for tea on the afternoon of 27 May; the celebration dinner will take place on the Friday evening; and there will be 2 or 3 lectures with a break for coffee on the morning of 28 May.

The speakers will include C. Huneke (Purdue University, West Lafayette), D. Kirby (Southamp-

ton), J.-E. Roos (Stockholm) and B. Teissier (École Normale Supérieure, Paris). The lectures will take place in the Department of Mathematics of the University of Exeter.

The charges involved are as follows: there will be a registration fee of £5 for participation in the meeting; the cost of the celebration dinner will be £9 per person; and bed and breakfast for the night of 27 May is available at Exeter University Conference Centre at a charge of £11-95.

Those wishing to attend are asked to write, as soon as possible, to Professor P. Vámos, Department of Mathematics, University of Exeter, North Park Road, Exeter EX4 4QE.

R.Y. Sharp, P. Vámos

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.

LONDON MATHEMATICAL SOCIETY

Notice of General Meeting

There will be a General Meeting of the Society on Friday, 17th June 1988 at 3.30 p.m. in the Meeting Room of the Geological Society, Burlington House, Piccadilly, London W.1., 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 increase the annual subscription of individual members for 1988-1989 from £6.00 to £10.00, and would increase the prices of the Bulletin, the Journal and the Proceedings to individual members for 1988-1989 by £1.00.

Text of the Proposed By-Law II,1

The annual subscription to the Society of Ordinary Members for the 1988-89 session shall be £10. The prices of the Society's periodicals to Ordinary Members shall be: Proceedings £9 per volume, Journal £9 per volume, Bulletin £9 per volume.

C.J. Mulvey
Council and General Secretary

PROGRAMME AND CONFERENCE FUND

The Society's Programme and Conference Fund is used to give financial support to various mathematical activities in the UK. This fund is administered by the Society's Programme 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 living expenses in London, and the host institutions are expected to share the cost of travel within the UK and local accomodation. 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 strongly encouraged. Programme Committee tries to plan Society Meetings at least six months in advance. Thus a suggestion for a visitor under this scheme should best be made about one year before the proposed visit.

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 just one meeting which is regional in scope. The LMS contribution under this scheme would be for the visitor's travelling expenses to and from the UK. Host institutions are expected to share the cost of travel within the UK and local accomodation. All arrangements for a visit supported under this scheme are the responsibility of the member who makes the applications, in the form of a letter to the Meetings and Membership Secretary (address below), can be made at any time, but should normally be made at least three months before 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 has made about ten such grants in each of the last two years.

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. Programme Committee tends to give priority to the support of 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 (address below), sets out conditions under which grants are normally made and requests the information Programme Committee usually requires when considering an application.

The following grants for support of conferences have been made within the past six months: £800 to U. Martin for 'Algebra and Automated Deduction' held at RHBNC London in January 1988; £1516 to D.A. Rand for 'Nonlinearity' (conference associated with a meeting of the Editorial Board) held at Warwick in March 1988; £480 to J.H. Coates for the 'Mordell Centenary Conference' held at Cambridge in January 1988; £1000 to J.T. Stuart for the '30th British Theoretical Mechanics Colloquium' held at Imperial College London in April 1988; £450 to D.M.Q. Mond and I.N. Stewart for 'Singularity Days IX' held at Warwick in February 1988; £150 to A.J.W. Hilton for the 'Combinatorics Colloquium' held at Reading in April 1988; £400 to A. Iserles for 'Dynamics of Numerics and Numerics of Dynamics' to be held at Cambridge in May 1988; £750 to K. Meinke and J.V. Tucker for 'Many-Sorted Logic and its applications in Computer Science' to be held at Leeds in September 1988; £300 to P.J. Eccles for the 'British Topology Meeting' to be held at Manchester in September 1988; £1100 to R.Y. Sharp and P. Vámos for the 'Meeting to celebrate the 70th birthday of David Rees' to be held at Exeter in May 1988.

Further information about these functions of Programme Committee can be obtained from the Meetings and Membership Secretary, A.R. Pears, Department of Mathematics, King's College London, 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 June 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 May 1988.

UNIVERSITY OF OXFORD

PROFESSORSHIP OF STATISTICAL SCIENCE

The electors intend to proceed to an election to the newly established Professorship of Statistical Science in the Department of Statistics. The stipend of the professorship is at present £26,905.

Applications (eight copies, or one from overseas candidates), naming three referees should be received not later than 16 May 1988 by the Registrar, University Offices, Wellington Square, Oxford, OX1 2JD, from whom further particulars may be obtained. The University is an equal opportunity employer.

CAMBRIDGE

25%
DISCOUNT

LMS PUBLICATIONS

Algebraic Topology via Differential Geometry

M. KAROUBI and C. LERUSTE

In this volume the authors illustrate how methods of differential geometry find application in the study of the topology of differential manifolds. The reader is introduced to De Rham cohomology, and explicit, detailed calculations are presented as worked examples.

LMS Lecture Note Series 99 363 pp. 1988 0 521 31714 2 **Pb £15.00 net**
LMS members price £11.25

Triangulated Categories in the Representation Theory of Finite-Dimensional Groups

D. HAPPEL

In recent years representation theory has been an area of intense research and the author shows in this book that derived categories of finite-dimensional algebras are a useful tool in studying tilting processes.

LMS Lecture Note Series 119 224 pp. 1988 0 521 33922 7 **Pb £13.95 net**
LMS members price £10.46

Commutator Theory for Congruence Modular Varieties

RALPH FREESE and RALPH McKENZIE

Presenting the commutator theory for congruence modular varieties, this book discusses many of its applications to topics in algebra. Written for researchers in universal algebra, it adopts a more algebraic approach than previous accounts and is able to develop deep algebraic results in a general setting.

LMS Lecture Note Series 125 227 pp. 1987 0 521 34832 3 **Pb £15.00 net**
LMS members price £11.25

Descriptive Set Theory and the Structure of Sets of Uniqueness

ALEXANDER S. KECHRIS and ALAIN LOUVEAU

The study of sets of uniqueness for trigonometric series originates with the work of Riemann, Heine and Cantor. In this book the approach is to develop the intriguing connections that the subject has with descriptive set theory.

LMS Lecture Note Series 128 367 pp. 1988 0 521 35811 6 **Pb £20.00 net**
LMS members price £15.00

Cambridge University Press

The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.

CAMBRIDGE

Logic for Mathematicians

Revised Edition

A. G. HAMILTON

Designed to be useful not only to intending logicians but also to mathematicians in general, this book introduces the techniques and principal results of mathematical logic. The revision includes new sections on skolemization and the application of well-formed formulae to logic programming.

232 pp. 0 521 36866 0 Pb £10.95 net

Forthcoming (September)

Rational Approximation of Real Functions

P. P. PETRUSHEV and V. A. POPOV

This book is devoted to the approximation of real functions by real rational functions. The authors present the basic achievements of the subject and, for completeness, also discuss topics from complex rational approximation.

Encyclopedia of Mathematics and its Applications 28

384 pp. 1988 0 521 33107 2 £40.00 net

Now in paperback

Metric Spaces

E. T. COPSON

Professor Copson's book provides an introduction to the theory of metric spaces, aimed at the application of the theory to classical algebra and analysis. The chapter on contraction mappings shows how the theory provides proof of many of the existence theorems of classical analysis.

Cambridge Tracts in Mathematics 57

143 pp. 1988 0 521 35732 2 Pb £7.95 net

Introduction to the Riemann Zeta-Function

S. J. PATTERSON

This is a modern introduction to the analytic techniques used in the investigation of zeta-functions through the example of the Riemann zeta-function. Professor Patterson has emphasised central ideas of broad application and this is an ideal introduction, especially for the purposes of algebraic number theory.

Cambridge Studies in Advanced Mathematics 14

176 pp. 1988 0 521 33535 3 £20.00 net

For further information on all Cambridge titles in Mathematics and details of the LMS 25% discount scheme, write to Sally Seed at the address below.

Cambridge University Press

The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.

NIGERIAN MATHEMATICAL SOCIETY

The Nigerian Mathematical Society, founded in 1980, will hold its 9th Annual Conference at the Federal University of Technology, Minna, Niger State, Nigeria from 4 to 7 May 1988.

A "National Mathematical Centre" has been established in ABUJA, Nigeria, with Professor J.O.C. Ezeilo, President of the Nigerian Mathematical Society as its Director.

THE BRITISH SOCIETY FOR THE HISTORY OF MATHEMATICS

The residential conference of the Society for 1988 will be held at the University of Leicester, from lunchtime Thursday 1st September to lunchtime Saturday 3rd September. Most of the sessions will be devoted to the theme 'The use of history in mathematics teaching and pedagogy', but there will also be papers on the history of mathematics in general. A visit to the library of the Mathematical Association is planned. The cost of the meeting will be about £55, and day rates will be available.

Those interested in attending may request further information from the Secretary, Dr Colin R Fletcher, Department of Mathematics, The University College of Wales, Aberystwyth. Those interested in presenting a paper should write to the President, Dr Ivor Grattan-Guinness, Middlesex Polytechnic, Faculty of Engineering Science and Mathematics, Queensway, Enfield, Middlesex. Of particular interest are papers of the general kind, although reports on individual experiences will be welcome.

LMS 1988 HONORARY MEMBER

At the Society Meeting on 18th March 1988, Professor Gustave Choquet was elected an Honorary Member of the London Mathematical Society, in recognition of his contributions to analysis, potential theory, functional analysis, measure the-

ory, and infinite-dimensional convexity theory.

C.J. Mulvey
Council and General Secretary

MEMBERSHIP SUBSCRIPTION

The membership subscription has been held constant for some six years. During this period all the Society's costs have risen substantially. Accordingly, Council recommend increasing the

membership fee to £10 per annum.

J.D.M. Wright
Treasurer

PROFESSOR H. KARCHER

Professor H. Karcher of the Max-Planck Institute and University of Bonn will be visiting Britain during the period 23-27 May with the support of an LMS grant under Scheme 2. He will be lecturing at a Leeds Differential Geometry Day on Tuesday 24 May (see below) and at the University of Warwick on Friday 27 May. The latter talk is entitled "A new proof of Toporogov's theorem" and will take place

at 2 p.m. in the Mathematics Institute.

Enquiries to J.C. Wood, School of Mathematics, University of Leeds, Leeds LS2 9JT, phone 0532-335106 (new direct line) and, for Warwick talk, J.H. Rawnsley, Mathematics Institute, University of Warwick, Coventry CV4 7AL, phone 0203-523595.

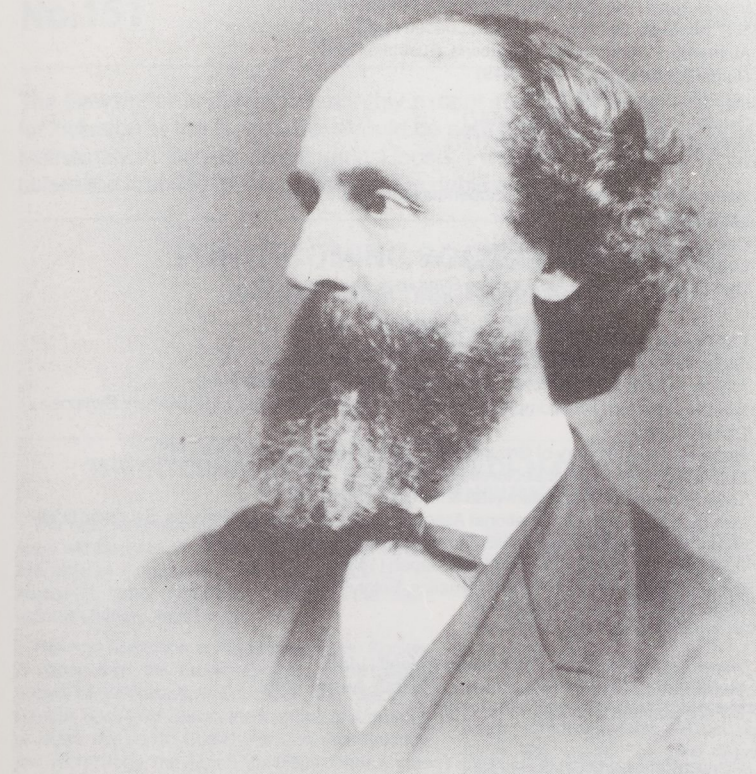
ANOTHER LEEDS DIFFERENTIAL GEOMETRY DAY

Following the Differential Geometry Day to be held on Tuesday 3 May (see April Newsletter) there will be a further Differential Geometry Day in the School of Mathematics, University of Leeds on Tuesday 24 May. There will be four talks as follows:

- | | |
|------------|------------------------------|
| 10.45 a.m. | Y. Maeda (Keio) |
| 11.50 a.m. | H. Morimoto (Nagoya) |
| 2.15 p.m. | K. Kenmotsu (Tôhoku) |
| 3.45 p.m. | H. Karcher (Bonn, see above) |

On asymptotic stability for the gradient flow of the Yang-Mills functional.
Limit cycles of the gradient flow of the Yang-Mills functional
Generalized Weierstrass formula for surfaces in R^4
A. Schoen's triply periodic minimal surfaces in R^3 and their constant curvature companions.

All interested are very welcome. Coffee will be available from 10.15 a.m. outside the Mathematics Staff Common Room, Level 9, Mathematics. Any enquiries to J.C. Wood, School of Mathematics, University, Leeds LS2 9JT, phone 0532-335106.



Thomas Archer Hirst (1830-1891) took his doctorate in 1852 at Marburg, and under the influence of Steiner worked mostly on geometry. He remained particularly close to continental mathematicians; a friendship with Cremona was cemented during the latter's keen involvement in the Italian war of unification. On his return to England he became part of various moves to reform the teaching of elementary geometry and make it more readily available to women. He eventually succeeded De Morgan at University College, before going on to become Director of Studies at the Royal Naval College. His geometrical work, notably his study of Cremona transformations, was recognised with the award of a Royal Society Medal in 1883. He was the Society's fifth President, from 1872-1874.

DIARY

The diary lists Society meetings and other events publicised in previous issues of the Newsletter.

1988

MAY

- 3 Differential Geometry Day, Leeds (149)
- 4 Euler and an Open Question, London (148)
- 4 Dynamics of Numerics and Numerics of Dynamics, Cambridge (149)
- 10-13 Vector Bundles in Algebraic Geometry, Liverpool (149)
- 11 The Twentieth Century Computer, London (148)
- 16-20 Australian Bicentennial Celebrations, Australia (149)
- 16-20 Numerical Analysis, France (149)
- 19-20 LMS Meeting, Cardiff (148)
- 26-28 Groups in Galway 88, Ireland (147)
- 31-4 June Numerical Methods, Singapore (147)

JUNE

- 6-24 Seminaire de Mathematiques Superieures, Canada (146)
- 17 LMS Meeting, London
- 20-24 Bail V Conference, China (141)
- 20-28 Logic and Computer Science, Italy (149)
- 30-10 July Dynamical Systems, LMS Durham Symposia, Durham (145)

JULY

- 1 LMS Evening of Popular Lectures, London
- 4-12 Global Geometry and Mathematical Physics, Italy (149)
- 5-8 Theory of Ordinary and Partial Differential Equations, Dundee (144)
- 5-15 Spinors, Twistors and Complex Structure in General Relativity, LMS Durham Symposia, Durham (145)
- 10-16 Representation Theory of Groups and Related Topics, Manchester (149)
- 11 LMS Evening of Popular Lectures, Liverpool
- 13-20 1988 St Andrews Colloquium (138 & 145)
- 17-27 IXth Congress of the International Association of Mathematical Physics, Swansea (138)
- 8-28 Model Theory and Groups, LMS Durham Symposia, Durham (145)
- 24-30 Radicals – Theory and Applications, Japan (143)
- 25-30 Computational and Applied Mathematics, Belgium (142)
- 27-3 Aug ICME-6 1988, Hungary (144)

AUGUST

- 9-12 Henstock Real Analysis Symposium, Ireland (148)
- 21-27 International Conference on General Algebra, Austria (145)
- 22-16 Sept ICPAM Summer School, France (148)

SEPTEMBER

- 16-19 Physical Interpretation of Relativity Theory, London (143)
- 19-23 International Colloquium on Differential Geometry, Spain (146)
- 21-22 British Topology Meeting, Manchester (149)
- 25-30 René Thom – International Symposium, France (147)

OCTOBER

- 19-20 Fractals in the Natural Sciences, The Royal Society, London (144)
- 21 LMS Meeting, London

NOVEMBER

- 18 LMS Annual General Meeting, London

DECEMBER

- 8-9 Physics and Mathematics of Strings, The Royal Society, London (144)

1989

JULY

- 3-7 British Combinatorial Conference, East Anglia (146)

AUGUST

- 13-19 Differential Equations and Applications, Bulgaria (148)

For further information, refer to the figure in brackets, which is a cross reference to the LMS Newsletter Number.