THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 240 **July 1996**

FORTHCOMING SOCIETY MEETINGS

Friday 18 October 1996, Linnean Society, London
Cayley-Sylvester Centenary Meeting on Invariant Theory
W.P. Barth, C. de Concini, R.E. Howe, F.C. Kirwan
Friday 15 November 1996, Linnean Society, London
Annual General Meeting
E. Witten, N.J. Hitchin (Presidential Address)
Friday-Saturday 21-22 February 1997 - Oxford
Group Theory
Friday-Saturday 23-24 May 1997 - Liverpool

LMS COUNCIL DIARY

I thought this time I would begin with the last item. We had another "Strategic Planning Meeting". The idea is that we can consider long term issues in a more leisurely way. Unfortunately as these sessions come at the end of a long business meeting some of us are not at our brightest. This time we discussed EPSRC policy. The main concern was the lack of funding for Postdoctoral Fellowships. During the discussion at least two members of Council said that their departments had not appointed anyone with a British PhD in the last few years. This seems to me to be quite worrying. The cause might be the Research Assessment Exercise. It is less risky to take someone with publications than a newly qualified PhD student. Without the chance to have a postdoctoral position how will young British research workers be able to compete? An alternative view might be that research students from British universities are not good enough!

Education Committee reported on a positive meeting with Labour Party representatives. There was a discussion of the Council slate for the elections this year. Council tries to ensure that there is a representative range of candidates who are put up for election. Remember though, that nominations from the membership are permitted by the rules and perhaps Council is not the sole repository of wisdom on these matters and other candidates are sometimes elected. We also agreed to present to a General Meeting a proposal for a class of "Associate Members" with an upper age limit of 28 and a much reduced subscription; it is hoped that this will encourage research students to join.

The working party on "Ethical Guidelines" brought a report back to Council. As much of it was concerned with the responsibilities of authors it was decided to let the Publications Committee look at it before proceeding any further. There had been more correspondence with Gillian Shephard about the concerns expressed in the report "Tackling the Mathematics Problem". It was felt that quiet pressure and cooperation with the authorities was now the correct way

forward. The President reported on a meeting he had had with the Presidents of the RSS and the IMA. He felt that there were a number of issues on which it would be useful to cooperate. They also discussed the relations between the learned societies and JMC and HoDoMS. At the beginning we reappointed Nicholas Young as Chair of the Durham Symposia Committee.

Alan Camina

LMS 1996 PRIZES

Professor D.E. Edmunds of the University of Sussex is awarded the Polya Prize for his many contributions to the analysis of differential equations, and for the influence he has exerted for more than thirty years on the subject in the United Kingdom. By introducing into this country the abstract approach initiated in France and the USA, he brought into being a generation of British analysts capable of utilising the new non-linear techniques in a wide variety of problems.

Dr D.R. Heath-Brown of Oxford University is awarded the Senior Berwick Prize for his paper "Zero free regions for Dirichlet L-functions and the least prime in an arithmetical progression" which appeared in Proc. London Math. Soc. (3) 64 (1992) 265-338. With great ingenuity and power, the author improves the Linnik constant from 13.5 to 5.5, a result which makes the paper one of the most significant in the area of classical analytic number theory for a decade.

Dr J. Roe of Oxford University is awarded a Junior Whitehead Prize for his work in the application and development of index theory for non-compact manifolds. This work, involving a mixture of Riemannian geometry, cyclic cohomology, operator algebras and topology has provided some essential tools for attacking long-standing problems in foliation theory and the homotopy invariance of higher signatures.

Dr Y. Safarov of King's College London is awarded a Junior Whitehead Prize for his work on the spectral theory of partial differential operators and micro-local analysis. His achievements include the determination of the second term in the asymptotic expansion of the spectral counting function for compact manifolds, and more recently the development of a new approach to Fourier integral operators.

N.J. Hitchin
President

NOMINATIONS FOR COUNCIL

Members of the Society are reminded that nominations of members for election to the Council may be made by writing to the Council and General Secretary (Professor R.Y. Sharp, Pure Mathematics Section, School of Mathematics and Statistics, University of Sheffield, Hicks Building, Sheffield S3 7RH). Such nominations must arrive before noon on 1 September 1996, must be made in accordance with the Charter, Statutes and By-Laws of the Society, must state the Office or term of Membership-at-Large to which nomination is made, and must be signed by the member nominated, by the nominator and by a seconder who is also a member of the Society. The sample nomination form on the next page, which could be photocopied or imitated, may help members of the Society.

All valid nominations received are added to those made by the Council, and circulated to the Society on a Ballot Paper which is used for the Council Elections at the Annual General Meeting in November. It should be noted that Council will make just enough nominations to fill the expected vacancies, so that, if this notice leads to no additional nomination, then the 1996 Council Elections will be essentially a formality.

Council's decisions about its nominations are indicated in the following list.

R.Y. Sharp
Council and General Secretary

COUNCIL'S NOMINATIONS FOR THE 1996 ELECTIONS

OFFICERS (one-year terms)

President
J.M. Ball

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W.A. Hodges
*A.J. Macintyre

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Council and General Secretary
*J.S. Pym

Meetings and Membership Secretary
D.J.H. Garling

Publications Secretary
*E.C. Lance

Librarian
J.A. Erdos

MEMBERS-AT-LARGE (two-year terms)
*R.J. Archbold
*F.C. Kirwan
*A.J. Scholl
*A.G. Chetwynd
E.G. Rees
J.F. Toland

MEMBERS-AT-LARGE (one-year terms)
A.R. Camina
J.D.S. Jones
A.D. Gardiner
U. Martin

Notes. (i) Members should note that the following two Members-at-Large of Council elected for two-year terms in November 1995 will have one remaining year to serve: K.A. Brown, P.T. Saunders.

(ii) The persons whose names are marked with an asterisk are not on the retiring Council.

(iii) Members are reminded that U. Martin is Chair of the Society's Computer Science Committee. P.T. Saunders will take over the Chair of the Society's Education Committee (from J.C. Robson) on 1 January 1997.

R.Y. Sharp
Council and General Secretary

We, the undersigned members of the London Mathematical Society, nominate

(block letters) .....
for election as (delete as applicable) Member-at-Large of Council
(one-year/two-year term)

/Officer (insert Office for which nominated) .....
in the 1996 Council Elections of the Society.

Nominator's signature and printed name .....

Seconder's signature and printed name .....

I confirm that I am willing to stand for election as indicated above.

Nominee's signature .....

LMS MEETS THE LABOUR PARTY!

A delegation from the LMS, IMA and RSS (David Crighton, Tony Gardiner, Geoffrey Howson, Chris Robson, Peter Saunders, Adrian Smith) met with representatives of the Labour party (Peter Kilfoyle, the shadow minister for schools, and Liz Allen of their policy unit) at Westminster on 7 May 1996. Also present was Professor Chatwin (Sheffield), who had been in contact with his MP, David Blunkett, about these matters.

The meeting was friendly and business-like. It covered all age ranges and ability ranges. Mr Kilfoyle's emphasis, as one might have guessed, was on numeracy in primary schools rather than on A-level mathematics - but he was not uninterested in the higher levels. He appeared to be unaware that we were particularly worried about the current decision-taking processes and he probed us on this. He was interested by our comments on the difference between Professors of Mathematical Education and Professors of Mathematics and he wondered about the absence of a single voice speaking for Mathematics. Problems about the teaching force were common ground, including the fact that one needs to improve the rewards if more good mathematicians are to become teachers and one needs also to increase in-service training. Members of our delegation were favourably impressed by Mr Kilfoyle, who promised to respond to us in writing.

J.C. Robson

LMS SCHEME 4 GRANTS

A year ago, Council introduced a new grant scheme, called Scheme 4, to support collaborative research. The aim of the scheme is to help members of the Society to visit an institution in the UK or abroad, in order to carry out joint research; either the continuation of a programme of joint research, or a new specific project that has been planned in some detail. The maximum sum available is £300. Where necessary, additional funds will have to be found from other sources. The intention of this scheme is to keep the call on other sources within reasonable bounds.

So far, the response to this scheme has been rather disappointing. The next deadline for applications is 31st August (in urgent cases, applications can be considered more quickly). Details of how to apply are given on the Society's home page of the World Wide Web, or in the Society's list of members.

D.J.H. Garling

LMS MONOGRAPHS

The New Series of Monographs, published jointly by the Society and Oxford University Press, was established in 1986. Only eight volumes appeared in the series in the years 1986-94 but now things are changing. Three volumes were published in 1995 and five further volumes will appear in 1996. Only one recent volume has been set in type; all the others were set in LaTeX by the authors and it is expected that most future volumes will be prepared in this way. Please ensure that your library subscribes to this fine series. Members of the Society receive a 25% discount when purchasing books from the series.

The academic level of the series embraces both graduate texts and wholly original monographs. Seven proposals have been accepted for publication in 1997 and 1998. The Series Editors, H.G. Dales (h.g.dales@leeds.ac.uk) and P.M. Neumann (neumann@vax.ox.ac.uk), are eager to receive further proposals, and also welcome enquiries.

FAREWELL DINNER

There will be a dinner on Thursday 3 October 1996 in Brasenose College to mark the retirement of Dr D.A. Edwards. Anyone interested in attending should contact Richard Haydon at Brasenose College, Oxford OX1 4AJ (e-mail: richard.haydon@brasenose.Oxford.ac.uk).

LONDON MATHEMATICAL SOCIETY MONOGRAPHS SERIES

25% DISCOUNT TO LMS MEMBERS

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Totally-Ordered Fields with Additional Structure

H. G. Dales and W. H. Woodin

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0-19-853991-6, February 1996
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Spectral Decompositions and Analytic Sheaves

J. Eschmeier and M. Putinar

This book uses the language of homological algebra and sheaf theory to describe both classical results and recent developments in the spectral theory of linear operators.

LMS Monographs Series No. 10
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Fundamentals of Semigroup Theory

John M. Howie

This is a clear and readable introduction to the subject, with emphasis on various classes of regular semigroups.

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0-19-851194-9, October 1995
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Area Lattice Points, and Exponential Sums

M. N. Huxley

This volume is concerned with the applications of exponential sum techniques to a variety of problems in number theory, in particular the Riemann Zeta Function and the problem of estimating the number of lattice points in regions.

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LMS Monographs Series No. 15
0-19-853498-1, April 1996
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Series Editors

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To order these or any Oxford books by credit card please ring +44 (0)1536 454534. *To obtain the 25% discount please remember to quote reference LMS0796.* If you would like further information please contact Carol Siddo at "siddoc@oup.co.uk"

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1996 MATHEMATICAL WHO'S WHERE - UNITED KINGDOM

The Society is producing a new edition of 'Mathematical Who's Where - United Kingdom'. This primarily comprises lists of mathematicians, by university departments, but also includes individual telephone numbers and e-mail addresses. A full list of members of the Society is published separately. Would members of the Society, whose names will no longer appear in a departmental list, but who wish their telephone number and, where appropriate, their e-mail address to appear in 'Who's Where', please send details to the Administrator by **Friday 12 July.** Please observe this deadline; 'Who's Where' is produced to a tight timetable.

ROYAL SOCIETY WORLD WIDE WEB

The Royal Society has established a home page on the World Wide Web (http://britac3.britac.ac.uk/rs/). The Society's information is held on the Web server of the British Academy and the Society is most grateful to the Academy for providing this facility and its assistance in setting up the Society's pages. Initially, the Society's pages provide basic information on the Society, its history and activities. This will be developed over time to provide more extensive information on latest and forthcoming events, journal contents and application details for fellowships and grants.

EUROPEAN CONGRESS OF MATHEMATICS LMS Reception

The London Mathematical Society will be holding a Meeting and Reception, for its members, during the 2nd European Congress of Mathematics at 6.30 pm on Wednesday 24 July at the Technical University, Budapest. Members who wish to attend should apply for their free ticket to the Administrator, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL (e-mail: lms@lms.ac.uk) no later than 10 July. The Society hopes to entertain as many as possible of its members who are attending the European Congress, but numbers are limited by the capacity of the room.

PRESS CUTTINGS

Mathematics has been in the news a lot recently, and it's important that we know what is being said. We see most of the national broadsheets, but we don't notice everything, and there are many publications we seldom see at all, especially the local press and technical journals. If you see something about mathematics or mathematicians that you think we might have missed, please send a cutting to the Administrator at Burlington House. We would also be pleased to hear from anyone who regularly looks through the papers or who follows the parliamentary debates, and who would be willing to watch out for relevant material for us.

P.T. Saunders

LONDON MATHEMATICAL SOCIETY FRIDAY 18 OCTOBER 1996

Cayley-Sylvester Centenary Meeting on Invariant Theory

Speakers:

W.P. Barth, C. de Concini, R.E. Howe, F.C. Kirwan

The meeting will be held at the Linnean Society, Burlington House, Piccadilly, London W1.

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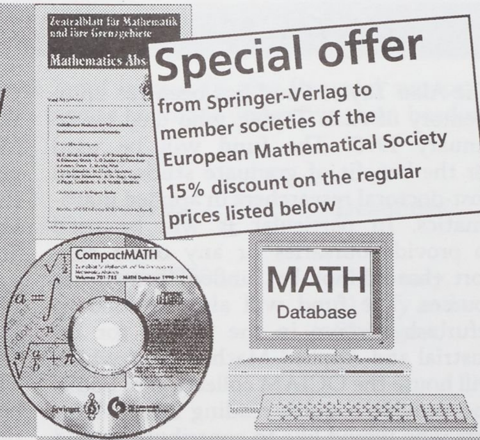

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ALAN TAYLER FUND

The Alan Tayler Fund has been set up in memory of Alan Tayler, who died on 28 January 1995. The fund will be used for the benefit of graduate students and post-doctoral researchers in applied mathematics. In particular it will be used to provide bursaries or any other support that cannot be funded from other sources. The fund will also be used to refurbish a room in the Centre for Industrial and Applied Mathematics which will house the OCIAM collection of books and provide a quiet reading area. Members who would like to contribute should contact Adrienne Hart-Davis, OCIAM, Mathematical Institute, 24-29 St Giles', Oxford OX1 3L.

REVIEWS BY EXPERTS FOR NON-EXPERTS

The Mathematical Gazette occasionally receives advanced books for review. While the Gazette is not a research journal this occasion offers the opportunity to inform its broadly-based readership on activity in current research. Reviews written specifically for this audience would be very welcome. If any member of the LMS would be interested in reviewing books (or videos, software) on this basis could they contact me, Tony Crilly, Reviews Editor, Mathematical Gazette (Tony4@mdx.ac.uk).

CTI MATHEMATICS WORKSHOP

A workshop on using graphic calculators in the teaching and learning of mathematics with post-16 students will be held on Wednesday 10th July 1996, commencing at 10.45 am, at the University of Birmingham. This workshop is jointly organised by CTI Mathematics and the School of Education of the University of Birmingham, and is sponsored by the National Council for Educational Technology. It will take place at the School of Education, and there will be a nominal charge of £30 including a buffet lunch. Those wishing to attend should inform Pam Bishop at CTI Mathematics, School of Mathematics and Statistics, The University of Birmingham, Birmingham B15 2TT by 3 July. Cheques should be made payable to the University of Birmingham, and can be paid in advance or on the day. Maps are available on request; the University station is two stops from New Street on the cross-city line.

PROBABILISTIC METHODS IN POLYMER PHYSICS

The conference, from 16 - 17 September 1996 will study recent applications of probability theory to polymer physics and will also investigate what advances are required in probability theory in order to answer some simple questions in polymer physics. The organisers are T. Chan (Heriot-Watt) and K.M. Jansons (University College, London) and the following invited speakers have agreed to participate: E.Bolthausen (Zürich), E. Buffet (Dublin), B. Duplantier (Saclay), F. den Hollander (Nijmegen). More information about the conference can be found from ICMS's WWW page: http://www.ma.hw.ac.uk/icms/ or e-mail: icms@maths.ed.ac.uk.

MATHEMATICS IN THE REAL WORLD

A residential meeting will be held at Pembroke College, Cambridge, from Friday 13th to Sunday 15th September. The theme is "Mathematics in the Real World", i.e. a survey of mathematical applications from the practical mathematics of the 17th Century to today's mathematical modeling. Speakers will include: Stephen Johnston (Museum of History of Science, Oxford), Hester Higton (National Maritime Museum, Greenwich), Michael Gorman (Cambridge), Joseph Grosss (Oxford), Doron Swade (Science Museum, London), Ivor Grattan- Guinness (Middlesex) and Gerard Alberts (Nijmegen). For further details, please contact: Adrian Rice, 71 Plimsoll Road, Finsbury Park, London N4 2EB; tel: 0171 226 6661; e-mail: ar027@mdx.ac.uk.

PROGRAMME AND CONFERENCE FUND

The Society's Programme and Conference Fund is used to give financial support to various mathematical activities in the UK. Grants are made under five main headings, which are set out in summary form below.

Type of Grant	General Purpose	Amount	Deadlines
Conference	Support of conferences within the UK. The grant may be either a substantial contribution to a small meeting or a small contribution to a large meeting	Up to £2500	31 January, 31 May and 31 August
Scheme 2	Support for a foreign visitor who will give lectures at three places in the UK	Return travel to UK up to a maximum of £500	At least three months before the visit
Scheme 3	Support of incidental costs for collaborative work by research groups from three (or more) different places	Travel or other costs up to £1000 for one year	31 January, 31 May and 31 August
Scheme 4	Support of travel and subsistence costs incurred by a UK member or their collaborator in carrying out joint research	Up to £300	31 January, 31 May and 31 August
fSU Scheme	Support of visits to UK by fSU mathematicians and support of visits to fSU by UK mathematicians	Basic travel and living expenses up to £1000	At least three months before the visit

Only Society members are eligible for Scheme 4 grants. Otherwise, any mathematician working in the UK is eligible for a grant; applications from non-members must be countersigned by a Society member. Applications for conference grants must be submitted on the appropriate form, available either from the Society's Office (lms@lms.ac.uk), or from the Society's ftp archive which can be reached via ftp ftp.qmw.ac.uk. In all other cases, applications should be made by letter, including (as appropriate) the academic case, details of participants and activities, places to be visited, the proposed timetable and a budget of estimated costs. Applications should be sent to the Meetings and Membership Secretary, Dr D.J.H. Garling, Department of Pure Mathematics and Mathematical Statistics, 16 Mill Lane, Cambridge CB2 1SB (telephone: 01223 337978, fax 01223 337920 e-mail d.j.h.garling@pmms.cam.ac.uk). Further information and advice can be obtained from him, from the Society's Office, from the Society's ftp archive or from the Society's home page on the World Wide Web at http:www.qmw.ac.uk/~lms/grants.html.

Recent grants are:

Conference	Awardee	Amount
Workshop on Function Spaces and their Applications	D.G. Vassiliev	£1250
British Applied Mathematics Colloquium	P. McIver	£1250
11th British Topology Meeting	J.R.Hunton	£1300
International Symposium on Nonstandard Analysis and its Applications	N.J.Cutland	£2500
Ordinary and Partial Differential Equations	P.J.Davis	£1000
Nonlinear Dynamics and Spectra of Molecules	R.M.Roberts	£2230
Semigroups and Applications	J.M.Howie	£1400
Europroj96	P.E. Newstead	£2500
Rendezvous Search	S. Alpern	£1500
U of Wales Pure Mathematics Colloquium	V. Mavron	£1120
Geometry of Banach Spaces	J.E.Jayne	£2000
Symmetries and Integrability of Difference Equations	P.A. Clarkson	£2500
HIMED 96	S.B. Russ	£840
Gerry Wickham Memorial Day Meeting	I.D. Abrahams	£350
Graduate School in Differential Geometry	L.M. Woodward	£2000
OCIAM	H. Ockenden	£3800
STATMECH-12	D.A.Lavis	£1027

Scheme 2:Visitor	Awardee	Places to visit	Amount
M. Lambrou	J. Erdos	King's London Imperial Leeds Newcastle	£300
S.Cappell	A. Ranicki	Edinburgh Cambridge	£300
C. Grebogi	D.B. Duncan	Dundee + 7 other Universities	£300
V.I. Vasyunin	G. Blower	Edinburgh (NBFAS) Lancaster	£300
O.A. Godin	C.J. Chapman	Keele Southampton Cambridge	£300

Scheme 3:Topic	Applicants	Institution	Award
Dynamical Systems	R.Sharp R.Nair D.Broomhead	Manchester Liverpool UMIST	£1000
Transpennine Topology Triangle	J.P.C.Greenlees J.R.Hunton N.Ray	Sheffield Leicester Manchester	£1000
Order and disorder in tissues	P.K.Maini M.A.J. Chaplain J.A.Sherratt	Oxford Bath Warwick	£1000
Algebraic Model Theory	H.D.Macpherson R.W.Kaye M.Prest A.Borovik	Oxford Birmingham Manchester UMIST	£1000

Scheme 4: Awardee	Institution	Collaborator	Institution	Award
H.N.V. Temperley	Bristol	E.H. Lieb	Princeton	£34
R.A. Fenn	Sussex	D. Rolfsen	Vancouver	£300
P.D.Robinson	Oxford	A.J.Wathen	Bristol	£250
R.A.Wilson	Birmingham	I.Suleiman	Jordan	£300
W.R.B. Lionheart	Oxford Brookes	R.V. Cohn	Courant Institute	£300
M.S. Joshi	Cambridge	A. Sa Barretto	Purdue	£300
M.J. Taylor	UMIST	B. Erez	Bordeaux	£200
P. Giblin	Liverpool	Kalle Astrom	Sweden	£300
P. Welch	Bristol	K. Hauser	Berlin	£300

fSU: Visitor	From	Awardee	Place to visit	Grant
N.Kuznetov	St. Petersburg	P.McIver	Loughborough BAMC	£1000
S.R.Svirshchevskii	Moscow	V.A. Galaktionov	Nottingham Kent	£1000
T.V.Levitina	Moscow	W.N.Everitt	Gregynog	£1000
V.M. Babich	St Petersburg	V.P. Smyshlyaev	Bath	£1000
E.I.Gordon	Nizhny Novgorod	N.J.Cutland	ICMS Edinburgh	£1000
V.B. Kolmanovskii	Moscow	J. Walsh	Manchester Universities	£1000
		J.F. Toland	Moscow	£463
E.A. Pecherskii	Moscow	Y.M. Suhov	Cambridge Swansea	£1000
S. Kuksin	Moscow	R. MacKay	Cambridge	£903
S. Bolotin	Moscow	R.Mackay	Cambridge	£903
V.B. Mnukhin	Taganrog	I.J. Siemons	Norwich	£1000
M.B. Sevryuk	Moscow	J.S.W. Lamb	Warwick	£950
E.M. Landis	Moscow	A. Grigor'yan	Imperial	£600

TÊTE-Á-TÊTE IN RUSSIA

The Euler International Mathematical Institute (EIMI) which has operated from January 1996 as part of the St Petersburg Division of the Steklov Mathematical Institute (PDMI) of the Russian Academy of Sciences, announces a new programme of scientific collaboration: Tête-á-Tête in Russia. The goal of the programme is to provide facilities for western and Russian mathematicians (not necessary from St. Petersburg) to meet for joint work. Such a meeting of two or more colleagues could last from a couple of days to several months.

In view of the present difficult economic situation, it is assumed that visitors will find the required funds from other sources. For its part, EIMI will provide offices, computer facilities (including TeX and internet connection), and access to the libraries of EIMI and PDMI. Visitors are welcome to participate in the regular mathematical seminars of PDMI and the University as well as in the meetings of the St. Petersburg Mathematical Society. EIMI will issue invitations as required for obtaining Russian visas and will help in finding accommodation.

Further information and an application form can be obtained by e-mail (admin@euler.pdmi.ras.ru). Acceptance of the application is subject to demand and to events in other EIMI programmes. More information about EIMI activities can be found on the WWW(http://www.pdmi.ras.ru).

Cohomology of Drinfeld Modular Varieties

GERARD LAUMON

Provides an introduction, in two volumes, to both this subject of the title and the Langlands correspondence for function fields. It is based on courses given by the author and will be welcomed by workers in number theory and representation theory.

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Publication October

Cambridge Studies in Advanced Mathematics 56

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This textbook is affordable and clearly illustrated, and is intended for advanced undergraduate or beginning graduate students with some previous experience of rings and fields. Alongside standard algebraic notions such as generators of modules and the ascending chain condition, the book develops in detail the geometric view of a commutative ring as the ring of functions on a space.

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£11.95 PB 0 521 45889 7

London Mathematical Society Student Texts 29

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VISIT OF PROFESSOR E.M. LANDIS

Professor E.M. Landis (Moscow State University, Russia) will be visiting Imperial College from 15 July to 27 July 1996. His visit is jointly supported by the LMS grant under the fSU scheme and by the Imperial College. E.M. Landis has been a full professor of the Moscow University since the early sixties. He has been long known as a leading expert in partial differential equations of elliptic and parabolic types. His earlier works in the 60s-80s were devoted to the following subjects

- uniqueness for the Cauchy problem for elliptic equations
- behaviour of solutions to the elliptic equations in unbounded regions
- an alternative proof of de Georgi theorem
- criterion of regularity of a boundary point for parabolic equations and many others.

His most recent work is related to elliptic second order differential equations in nondivergence form. As is well known, the theory of the elliptic second order equations in the divergent form was created in the celebrated works of de Georgi, Nash and Moser, and the crucial point of the theory is that it does not depend on smoothness of the coefficients of the equation - only the constants of ellipticity matter for such properties as Harnack inequality, estimates of fundamental solutions, a priori Holder norm estimates etc. It is different for the elliptic equations in non-divergent form. Although, by following the approach developed by Landis, N. Krylov and M. Safonov proved a priori Holder continuity of solutions to such equations and, therefore, existence for the boundary value problems, the question of uniqueness is still open. The most significant achievements are due to E.M. Landis who proved uniqueness under additional conditions on the coefficients in terms of smallness (in some sense) of a set of discontinuity of the coefficients.

The main purpose of the visit of E.M. Landis will be discussions of possible approaches to the uniqueness problem and related topics. Everybody is welcome who would like to meet Professor Landis during his stay in London. Please contact Dr Alexander Grigor'yan on a.grigoryan@ic.ac.uk.

VISIT OF PROFESSOR O. A. GODIN

Professor Oleg A. Godin, from the P. P. Shirshov Oceanography Institute of the Russian Academy of Sciences, Moscow, and from the School of Earth and Ocean Sciences, University of Victoria, Canada, is visiting England for the period 30 June to 13 July 1996. His visit is supported by a Scheme 2 grant of the London Mathematical Society. Professor Godin will lecture at the Proudman Oceanography Laboratory, Bidston, Birkenhead on Tuesday 2 July on ocean currents in the coastal zone, and later that week he will lecture at DAMTP, University of Cambridge. He will spend the week Monday 8 July to Friday 12 July at the Department of Mathematics, University of Keele, to attend the colloquium Euromech 352 on Mean Flow Effects in Acoustics, where he will lecture on reciprocity and energy theorems for waves in a compressible inhomogeneous moving fluid. All members of the Society are welcome to attend these lectures. For further information, contact Dr C.J. Chapman at the University of Keele, e-mail: c.j.chapman@maths.keele. ac.uk.

VISIT OF DR V.B. MNUKHIN

Dr V.B. Mnukhin (Taganrog, Russia) has been awarded an LMS grant (fSU Scheme) to visit the United Kingdom. He will be at the University of East Anglia for the month of July. For further information contact Dr I.J. Siemons, School of Mathematics, UEA Norwich by e-mail j.siemons@uea.ac.uk.

HONOUR FOR JAMES EELLS

Professor James Eells has been awarded the degree of Doctor of Laws *(honoris causa)* by his *alma mater,* Bowdoin College.

University of Cambridge

STATISTICAL LABORATORY

PROFESSOR OF STATISTICAL SCIENCE

Applications are invited for the recently established Chair of Statistical Science in the University of Cambridge. It is envisaged that the successful candidate's major interests will lie in the development of new methods of data analysis and their application to particular problems, and the person appointed will be expected to carry out his or her duties within the Statistical Laboratory. The appointment will begin on a date to be agreed with the individual concerned.

The Statistical Laboratory is responsible for teaching courses in Probability, Statistics and the Mathematics of Operational Research within the University's Mathematical Tripos, and for teaching the Diploma in Mathematical Statistics. There are over 200 students in each of the three undergraduate years of the Tripos; in addition there are usually about 12 graduate students following the Diploma course and about 20 research students. Information concerning the Laboratory may be obtained via http://www.statslab.cam.ac.uk/.

Further information may be obtained from the Secretary General of the Faculties, The General Board Office, The Old Schools, Cambridge CB2 1TT, England, to whom applications (10 copies) should be sent, together with the names of two referees, so as to reach him not later than 16 September 1996. Informal enquiries may be made to Professor Geoffrey Grimmett, Statistical Laboratory, 16 Mill Lane, Cambridge CB2 1SB, England (e-mail g.r.grimmett@statslab.cam.ac.uk, telephone +44 1223 337958).

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ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES

News from the Institute Sir Michael Atiyah will retire as Director of the Isaac Newton Institute on 30 September 1996. A meeting and reception to mark his retirement, and also that of Sir Peter Swinnerton-Dyer from the post of Executive Director, will be held at the Institute on Friday 4 October 1996. The meeting is open, and all interested mathematicians and mathematical scientists are cordially invited to attend. Details of lectures to be presented will be announced soon.

Professor Keith Moffatt (DAMTP and Trinity College, Cambridge) who takes over as Director of the Institute with effect from 1 October 1996, writes as follows. "I am very conscious of the need to strengthen the national image of the Isaac Newton Institute, and of the need in this respect to liaise closely with the London Mathematical Society in the long-term planning of its programmes and in the shorter term planning of workshops within programmes, seminars and lecture tours of distinguished overseas visitors to the Institute. I would welcome any comments or suggestions that members of LMS may care to make concerning their perception of the INI and concerning ways in which they consider that its activities as a national research institute for mathematical sciences may need modification or improvement (e-mail: hkm2@damtp.cam.ac.uk)."

A call for new proposals for programmes for 1999 onwards has recently been issued. From that date, programmes may be of either six-month (January to June or July to December), or four-month duration (January to April, May to August or September to December). Further information is available on request (e-mail i.newton@newton.cam.ac.uk). Detailed information concerning current activities and future programmes can be found on the World Wide Web at URL http://www.newton.cam.ac.uk.

Scientific Programme The Institute began its scientific work in July 1992 with its first two programmes, on Low-dimensional Topology and Quantum Field Theory, and Dynamo Theory; since then, fourteen further programmes on L-functions and Arithmetic, Epidemic Models, Computer Vision, Random Spatial Processes, Geometry and Gravity, Cellular Automata, Aggregation and Growth, Topological Defects, Symplectic Geometry, Exponential Asymptotics, Financial Mathematics, From Finite to Infinite Dimensional Dynamical Systems, Semantics of Computation, Dynamics of Complex Fluids and Computer Security, Cryptology and Coding have been completed. On the advice of the Scientific Steering Committee, seven programmes for the period July 1996 - December 1997 have now been confirmed.

Mathematics of Atmosphere and Ocean Dynamics July to December 1996; organisers: J.C.R. Hunt (UK Met Office), M.E. McIntyre (Cambridge), J. Norbury (Oxford), I. Roulstone (UK Met Office). Weather forecasts are routinely computed for up to 10 days ahead, based on large quantities of wind, temperature and humidity data that are collected continuously and used to modify the computations. The data are of course insufficient to determine the exact state of the atmosphere. Since they are very expensive to obtain there is a premium on their optimal exploitation. Therefore it is of the highest importance for numerical weather prediction to identify the dominant processes and flow features that determine how the large scale weather patterns develop. By then ensuring that the continuous assimilation of data is consistent with these features the accuracy of the forecasts is greatly increased. Ocean modelling is beginning to develop similar data assimilation techniques. Recent exchanges of ideas between mathematicians and atmosphere-ocean dynamicists have I brought a new geometric global viewpoint to these problems, in particular a new appreciation of how fluid-dynamical

conservation laws, for example potential vorticity, connect with the symplectic geometric structure of the underlying equations of motion. A major challenge for the programme will be to bring ideas from geometry, analysis and the theory of dynamical systems to bear on the practical and urgent problems of weather forecasting, ocean and climate modelling.

Mathematical Modelling of Plankton Population Dynamics 29 July to 6 September 1996; organisers: J. Brindley (Leeds), M. Fasham (Southampton), J. McGlade (Warwick). Plankton play a key role in ocean-atmosphere dynamics. Their effects range from alterations on a local scale of the structure of the sea-surface temperature and mixed layer depth, to ocean basin-wide emissions of potentially important climatological gases such as dimethyl sulphate, up to global fluxes of atmospheric carbon. These effects occur over a wide range of spatio-temporal scales and via a number of different biophysical processes. The programme will bring together mathematical and numerical modellers with biological oceanographers to review, improve and develop models, addressing particularly the needs to understand the spatio-temporal scale distribution of plankton behaviour and its relationship with the physical dynamics of the ocean-atmosphere system. Within the six week programme will be embedded a sp ecialist meeting attended by much larger number than the core participants, focusing on the effects of physical forcing on plankton populations and the consequences for fisheries.

Four-dimensional Geometry and Quantum Field Theory 4 November to 13 December 1996; organisers: Sir Michael Atiyah (Cambridge), I.M. Singer (MIT). This six-week programme will focus on the exciting recent developments centring around a remarkable duality in four-dimensional space-time. This formally interchanges Electricity and Magnetism and works in certain non-abelian gauge theories. It has major implications for the understanding of strong interactions in physics and in four-dimensional geometry.

Representation Theory of Algebraic Groups and Related Finite Groups January to June 1997; organisers: M. Broue (Paris), R.W. Carter (Warwick), J. Saxl (Cambridge). There is a famous theory due to Hermann Weyl for the characters of the finite dimensional irreducible representations of simple algebraic groups over the complex numbers. In finite characteristic no analogous formula has been proved, but there is a conjecture due to Lusztig which expresses the irreducible characters as linear combinations of the Weyl characters. This is related to certain characters of affine Kac-Moody algebras, and also to the representations of certain quantum groups - the latter being at the moment a rapidly developing branch of mathematics. Other related themes include subgroup structures of the corresponding groups of Lie type.

Non-Perturbative Aspects of Quantum Field Theory January to June 1997; organisers: D.I. Olive (Swansea), P. Van Baal (Leiden), P. West (King's College, London). Recent results of Sen, Seiberg and Witten have made increasingly plausible the idea of a quantum transformation between the weak and strong coupling regimes of certain spontaneously broken supersymmetric gauge theories in space-time of four dimensions. The relevant ideas encompass and unify many topics studied intensively over recent years by particle physicists including QCD and the theory of instantons, solitons and their quantisation, conformal field theory, Yang-Baxter equations, the s and t duality of string theory and the mirror symmetry of Calabi-Yau manifolds. The new results have also already had an impact on pure mathematics, for example in the understanding of the Donaldson classification of four manifolds. The aim of the programme is to explore the idea of electromagnetic duality, to gain new insights into fundamental physics (for example, the issue of confinement in QCD, and the improved formulation of unified string theories), and into pure mathematics.

Disordered Systems and Quantum Chaos July to December 1997; organisers: J. Keating (Bristol), D.E. Khmelnitskii

(Cambridge), I.V. Lerner (Birmingham), P. Sarnak (Princeton). The quantum properties of disordered systems have been the focus of considerable attention in many branches of physics, principally nuclear physics and condensed matter physics. Recently it has been recognised that many of the same phenomena also occur in deterministic systems which possess only a few degrees of freedom, but which are chaotic in the classical limit. Even more surprisingly, the theories developed in these areas also have natural counterparts in a number of topics in mathematics; for example, in the study of spectral properties of random operators and random matrices, in the theory of Fourier integral operators, in harmonic analysis (specifically in the theory of the Riemann zeta-function and related L-functions). In the past few years an extremely stimulating and productive cross-fertilisation between the above fields has slowly been developing. The aim of the programme is to accelerate the already significant rate of progress on some of the important common problems which occur, in different guises, in each area. The main topics upon which the programme will focus are localisation, fluctuation statistics, and trace formulae; with a particular emphasis on their role in the theory of mesoscopic systems.

Neural Networks and Machine Learning July to December 1997; organisers: C.M. Bishop (Aston), D. Haussler (UCSC), G.E. Hinton (Toronto), M. Niranjan (Cambridge), L.G. Valiant (Harvard). Research in machine learning has advanced significantly in recent years, stimulated in part by the emergence of a range of successful, large-scale applications. Examples include optical character recognition, classification of sleep stages from EEG signals, cervical smear screening, and real-time tokamak plasma control. At the same time there have been many impressive developments in the theoretical foundations of this field, arising from several complementary approaches. Concepts from statistical pattern recognition have been used to formulate a general framework for machine learning based on statistical inference. Parallel developments in computational learning theory have led to a characterisation of computational and sample-size requirements for learning problems, while also resulting in powerful new algorithms. In addition, concepts from information theory, differential geometry and statistical mechanics have been exploited to give alternative insights into neural networks. The principal aims of this programme are to promote greater interdisciplinary collaboration between researchers with different theoretical perspectives, to strive for a more unified mathematical framework for neural networks and machine learning, and to stimulate the development of new algorithms for practical applications.

For further information on the above programmes, contact the Executive Director, Isaac Newton Institute for Mathematical Sciences, 20 Clarkson Road, Cambridge CB3 0EH; tel: 01223 335999; e-mail: i.newton@newton.cam.ac.uk or see the Newton Institute's Web site (http://ww/newton/cam/ac/uk).

WORKSHOP ON VAPNIK-CHERVONENKIS DIMENSION

The workshop is being organised by the International Centre for Mathematical Sciences, Edinburgh from 9th to 13th September 1996. It will be a multidisciplinary meeting and will cover the topic in all its aspects: probability and statistics, computational learning theory, geometry and applications in computer science. The organisers are M. Jerrum (Edinburgh), A. Macintyre (Oxford), J. Shawe-Taylor (Royal Holloway, London) and the following invited speakers have agreed to participate: S. Ben-David (Technion, Haifa), D Haussler (University of California at Santa Cruz), J. Matousek (Charles University, Prague), V.N. Vapnik (AT&T Bell Laboratories, New Jersey). More information about the workshop can be found from WWW page: http://www.dcs.ed.ac.uk/~mrj/VCWorkshop or e-mail: icms@maths.ed.ac.uk.

LONDON MATHEMATICAL SOCIETY
THE ORIGIN OF THE DE MORGAN MEDAL

On 18 March 1871, Augustus De Morgan died at the age of 64. Almost immediately, there were calls, in the press and elsewhere, for a fitting memorial to be established in his honour. The geometer Thomas Archer Hirst, a friend of the De Morgan family, was particularly keen to preserve the Professor's mathematical library of over 3000 rare books, visiting De Morgan's widow on 14 April to discuss the matter of purchasing it on behalf of the Mathematical Society: "Mrs De Morgan liked the idea of its being so disposed of (I did not mention the purchaser's name)". Hirst also attended a meeting of De Morgan's friends and former pupils, convened at the University of London on 10 May 1871, to discuss an appropriate testimonial to express their "deep sense of intellectual and moral obligation". However, the members of this "De Morgan Memorial Committee" were somewhat divided as to the best course of action to pursue:

There was a strong desire to obtain the best personal memorial of him in the shape of both a good bust and a good picture for University College, London, where he so long lectured. There was also a great desire to purchase his rare mathematical library (valued at something like £1,200) on behalf of the University of London..., and there was a strong wish to establish a De Morgan medal, to be awarded annually by the Mathematical Society to the writer of the most original mathematical treatise. At last it was resolved ... to make the personal memorial the first object, the purchase of the library only the second, and the foundation of the medal the third. The need to raise money for the second objective was quickly obviated by the intervention of Lord Overstone, a member of the University of London Senate, who authorised Hirst to purchase the De Morgan library on his account for the University. It was thus anticipated that the Committee would "find no difficulty in raising subscriptions adequate to cover, we trust, both a bust and a portrait, and a sufficient foundation for a handsome gold medal to be awarded by the Mathematical Society". The first object was certainly achieved, at least in part. Although a portrait does not seem to have been undertaken, sufficient money was raised for a bust of De Morgan, by the artist Thomas Woolner, to be presented to the University of London, in whose library it may be found today.

It was the commemorative medal which was to cause the most problems, and not merely financial. From surviving correspondence, it seems that it took years to decide on the precise design. In a letter to Hirst, probably from 1873, De Morgan's widow appeared to favour the use of an intriguing ruler and compass construction which De Morgan had originally designed as the Society's logo. In her letter, she drew attention to "the little sage in the centre, who I suppose represents either Greek Mathematics in general, Aristotle or Euclid. The Society will understand the device I have no doubt; but I cannot quite make out the triangles and curves, which have a look of circle-squaring - nor the two dates at the sides, 5625 & 1280." These dates were in fact simply the year of the Society's foundation in the Jewish and Islamic calendars respectively!

This design was in fact never used, either on the medal or as the Society's emblem. For the former, it was replaced by another De Morgan design, his "Zodiac of Syllogism". This was a drawing of which the Professor had been especially fond, incorporating notation used in his work on symbolic logic with the initials ADM to form a symmetrical pattern which he had used as his personal motif. For the medal's obverse, it was agreed that a profile of De Morgan would be appropriate, but this too proved to be a challenge. Two months after her first letter, Mrs De

Morgan wrote again, anxious "that there may be a difficulty in getting a good profile likeness of my husband for the Medal. The bust is very good, & wonderful for a posthumous bust, but the forehead is not quite massive enough - in what phrenologists call the perceptives, and the profile has not the delicacy & beauty of his features. The original photograph which is nearly a profile has all that is required, and if the outline were taken from this it could not fail of being good."

This letter was again addressed to Hirst, who took a major part in the organisation of the De Morgan medal. He was not however in overall charge of the undertaking. This responsibility was assumed by Henry Mason Bompas. A former pupil of De Morgan and one of the Society's founding secretaries (although he had since ceased to be an active member), Bompas acted on behalf of the De Morgan Memorial Committee, liaising with the Society through Hirst. In March 1874, Bompas wrote to inform Hirst that the medal was with the dyemaster, "but he is wanting to know what the inscription & obverse should be. I have spoken to Woolner & he thinks that the obverse should be the design which Mrs De Morgan sent & with the words in honour of Prof De Morgan..." But this plan also caused him some difficulty:

"If this be adopted then it occurs to me the question arises whether there ought to be anything about the Mathematical Society on it. I presume there is no reasonable doubt that they will accept it but it would hardly do to put their name on it without their consent. Would it do to put round the head on the front of the medal 'AUGUSTUS DE MORGAN. PRES. OF LOND. MATH. SOC.' or any other such inscription & should we say "First President" or late President & does that sufficiently connect it with them if they do give it I don't know if societies which accept such medals usually have their names on it. I thought you as connected with the Mathematical Society could best advise me. I do not want to wait to call a meeting & have a formal communication with the Society if I can avoid it as from business or ill health I have let matters already stand over so long."

Yet the matter was to remain dormant for another five years, after which real progress was finally made. In January 1879, Bompas wrote to Hirst, "I am at length trying to complete the De Morgan medal I hope better late than never". By February, impressions of the medal had been cast and the De Morgan Committee finally found itself in a position to raise subscriptions to establish the award: "We suggest endowing it with about £100 so as to give a £10 medal once in 3 years". Bompas again contacted Hirst for advice: "Do you know anyone who will help; perhaps some members of the Math Society might for the sake of the Society if not of De Morgan; you see if we could find a dozen men who would give £5 a piece the thing would be done."

Hirst wasted no time. At the next meeting of the Society, he presented members with an account of the current situation:

"...it appeared that the bust and die for the Medal had been executed by Mr Woolner, and that, after all claims for these had been met, there would still be a small sum required to make up the total requisite for investment in the Funds to bring in the necessary interest for the above purpose. It was agreed that a subscription list be opened for any Members who might wish to contribute to the Fund, and that Mr Tucker be authorized to receive such subscriptions as might be paid in this way... Copies of the obverse and reverse of the Medal were exhibited."

The new decade opened with the distribution to members of the following circular, a draft of which remains in the Society's archives:

22 Albemarle Street
London W.
--- January 1880

Sir

The Council think it expedient to bring under the notice of the Fellows of the London Mathematical Society that the Committee of the De Morgan Memorial have proposed to devote a surplus in their hands of £--- to the establishment of a medal, to be awarded periodically by the Council of this Society and to be called the De Morgan medal, in honour of the founder of the Society, provided a sufficient fund was raised to meet the cost. The dies have been actually engraved, and the expenses of the engraving (£...) have absorbed, within a few shillings, the surplus of the memorial fund. About £100 would need to be invested, in order to provide a gold medal triannually. Of this sum £.... has been subscribed, and £.... of these subscriptions has been actually paid.

The Council think it right that an opportunity should be afforded to the Fellows of the Society, of contributing, if they so minded, to this memorial of the Founder of the Society. I am therefore to state that subscriptions for this purpose may be paid to the Treasurer of the Society, by crossed cheque, or by Post Office order drawn on .....

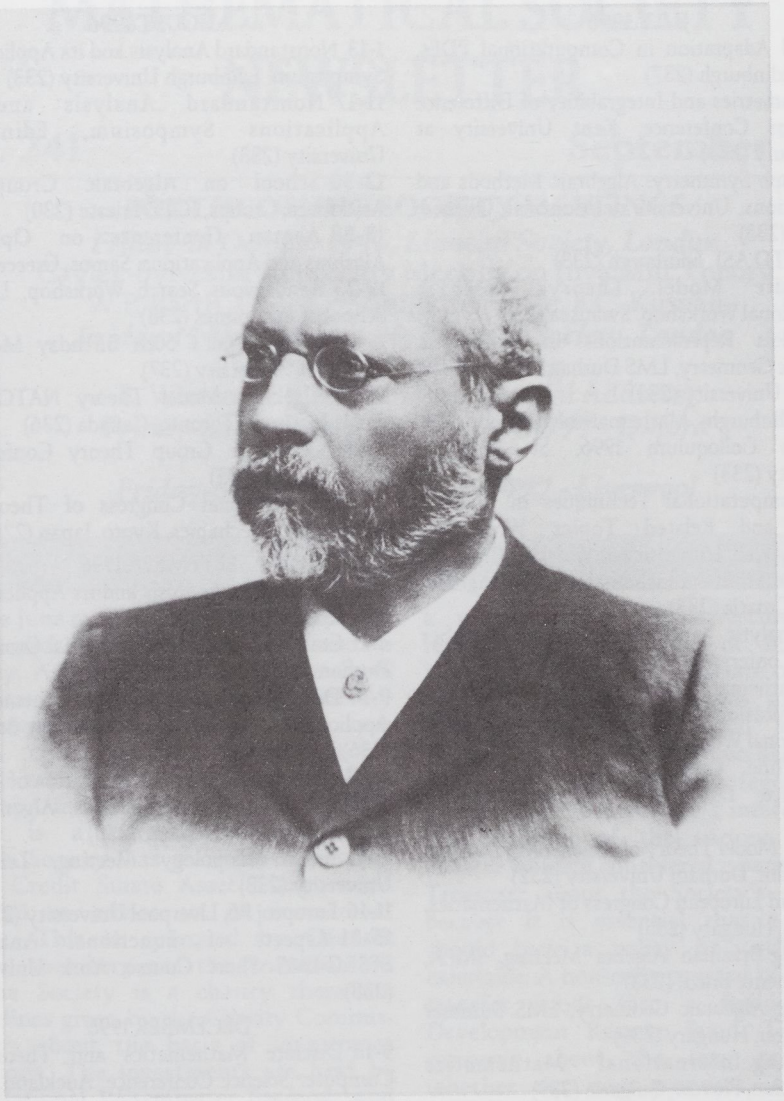
I have the honour to be
Sir
your obedient servant
R[obert] T[ucker]
Honorary Secretary

The objectives of the fund-raising campaign thus instituted were modest, to say the least. As Bompas said on pledging himself willing to donate £15 to the cause, "I think we ought to be able to find 8 others in all England who at a pinch would do the same". (Nearly two decades later, the Society's second President would be commemorated as the result of a much larger subscription which resulted in the inauguration of the Royal Society's Sylvester Medal, first awarded in 1901.) By 1882, the then President, Samuel Roberts, was able to announce that subscriptions had raised sufficient funds to enable the Society to award a gold medal, worth ten pounds, at intervals of three years.

The medal had originally been conceived with the intention of an annual award "to the writer of the most original mathematical treatise". However, by 1882, the criteria for its conferment had changed simply to outstanding contributions to mathematics. Roberts explained, "It was generally felt that those conditions should be as little restrictive as possible; and that, having regard to the cosmopolitan character of our science, and to the great value which much attach to our cordial co-operation with foreign men of science, the award should be made without regard to nationality. The first selection will be made in time for awarding the medal at the annual general meeting in November, 1884." Yet, once again, the process by which this was accomplished was not entirely straight forward, as Hirst's diaries show.

He tells us that, at the committee meeting of 8 May 1884, "I proposed Schulbert for the De Morgan Medal. Cayley seconded my proposition although he himself had been previously proposed for it by Glaisher. There was some discussion and on the whole I thought the feeling in favour of Cayley. My contention was that the medal would be more appropriately bestowed on a younger and rising mathematician." However, a month later, probably due to lack of support from other committee members, he withdrew the nomination. "I had hoped that Cayley would have declined the Medal," he wrote,"but he did not do so, and as I did not wish to divide the Council on the subject, I resolved to withdraw Schulbert." As a result, Arthur Cayley was presented with the very first De Morgan Medal on 13 November 1884. The second recipient, three years later, was Sylvester. The Medal has been awarded triennially to distinguished mathematicians ever since.

Adrian Rice



M. NOETHER
Honorary Member 1913

DIARY

The diary lists Society meetings and other events publicized 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.

JULY 1996

1-5 Grid Adaptation in Computational PDEs, ICMS, Edinburgh (237)

1-5 Symmetries and Integrability of Difference Equations Conference, Kent University at Canterbury (239)

1-12 Graph Symmetry: Algebraic Methods and Applications, Université de Montréal, Québec, Canada (233)

1-13 NATO ASI, Edinburgh (233)

8-9 Finite Model Theory, MathFit Instructional Workshop, Swansea (236)

8-19 Galois Representations in Arithmetic Algebraic Geometry, LMS Durham Symposium, Durham University (232)

13-20 Edinburgh Mathematical Society's St Andrews Colloquium 1996, St Andrews University (233)

14-19 Computational Techniques in Spectral Theory and Related Topics Workshop, Gregynog Hall, University of Wales (230)

18-20 Croatian Mathematical Congress, Zagreb, Croatia (233)

18-20 Analytic and Elementary Number Theory Conference, Vienna, Austria (233)

19-21 Mathematical Models of Concurrency, Communication and Distribution, MathFit Instructional Workshop, Kent University (236)

21-25 Affine Geometry of Convex Sets Conference, Dalhousie University, Canada (232)

21-1 Aug Model Theory of Fields, LMS Durham Symposium, Durham University (232)

22-26 2nd European Congress of Mathematics, Budapest, Hungary (235)

28-3 Aug Brazilian Algebra Meeting, IMPA, Rio de Janeiro, Brazil (233)

29-9 Aug Algebraic Geometry, EMS Summer School, Eger, Hungary (239)

31-5 Aug International Mathematics Competition, Plovdiv, Bulgaria (239)

AUGUST 1996

1-13 Nonstandard Analysis and its Applications Symposium, Edinburgh University (233)

11-17 Nonstandard Analysis and its Applications Symposium, Edinburgh University (233)

12-30 School on Algebraic Groups & Arithmetic Groups, ICTP Trieste (230)

18-28 Aegean Conference on Operator Algebras and Applications, Samos, Greece (237)

19-23 Rendezvous Search Workshop, London School of Economics (238)

19-24 C.T.C. Wall's 60th Birthday Meeting, Liverpool University (237)

19-30 Algebraic Model Theory NATO ASI, Fields Institute, Toronto, Canada (236)

25-31 Geometric Group Theory Conference, Crete, Greece (235)

25-31 International Congress of Theoretical and Applied Mechanics, Kyoto, Japan (226)

SEPTEMBER 1996

2-6 Diophantine Analysis and its Applications, Minsk, Belarus (237)

4-11 Graduate School in Differential Geometry, Durham University (239)

9-14 Drinfield Modules, Modular Schemes and Applications Instructional Meeting, Belgium (236)

9-27 School on Numerical Simulation of Partial Differential Equations: Methods, Algorithms, Applications, ICTP Trieste (230)

11-12 British Topology Meeting, Leicester University (238)

11-16 Europroj 96, Liverpool University (237)

15-21 Aspects of Functional Analysis, EPSRC-LMS Short Course, York University (238)

DECEMBER 1996

9-13 Discrete Mathematics and Theoretical Computer Science Conference, Auckland, New Zealand (238)

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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