

LMS NEWSLETTER

No. 82

October 1981

DATES OF SOCIETY MEETINGS

Friday, 16 October 1981, Burlington House (P. Newstead and B. Eckmann).

Friday, 20 November 1981, Burlington House (AGM; T. Brooke-Benjamin and J. B. Paris).

Friday, 15 January 1982, Burlington House (N. L. Biggs and D. Williams).

Friday, 19 February 1982, Burlington House (J. T. Stafford and I. N. Herstein).

Friday, 19 March 1982, Burlington House (S. Sternberg and E. C. Zeeman).

Friday, 16 April–Saturday, 17 April 1982.

Two-day meeting at Oxford.

Friday, 14 May–Saturday, 15 May 1982.

Two-day meeting at Sheffield.

Friday, 21 May–Monday, 24 May 1982.

Weekend meeting at Gregynog.

Friday, 18 June 1982, Burlington House (P. J. Cameron and R. Bieri).

Although the Society usually meets on the third Friday of the month, the ordinary meeting in May 1982 is that in Sheffield, as the Gregynog meeting is more specialized.

R. A. BAILEY

GENERAL MEETING

There will be a general meeting of the Society on Friday, 16 October 1981 at 3.30 p.m. in the Meeting Room of the Geological Society, Burlington House, Piccadilly, London W1, to consider a proposal by the Council of the Society to delete the existing By-Laws II, 1, and II, 3 and to substitute those printed below.

The purpose of this change is to raise the annual subscription of individual Members and of Corporate and Institutional Members.

Text of Proposed By-Law II, 1

The annual subscription of the Society for the 1981–82 session shall be £6. The prices of the Society's periodicals to individual Members shall be £6 per volume.

Text of Proposed By-Law II, 3

The annual subscription to the Society of Corporate and Institutional Members shall be £195, inclusive of one volume of the *Bulletin* and two volumes of the *Journal* and *Proceedings*; except that those Corporate and Institutional Members who have more than one Representative shall pay an additional subscription of £6 for each Representative in excess of one.

P. R. GOODEY

COUNCIL NEWS

The LMS Council met on 19 June 1981, when the following matters were among those under discussion.

1. It was agreed that the Programme and Conference Fund should be controlled by the Programme and Conference Committee, with a view to making the Accounts more easily understood.

2. The Annual Membership Subscription for Ordinary Members for 1981–82 was proposed to be £6, and the subscription for Corporate Members £195. The possibility of subscriptions being paid by Direct Debit was discussed, and it was decided to canvass members' opinions by means of a question on this year's subscription form.

3. Council set up a sub-committee to look into the possibility of organizing a schools lecture in the early summer of 1982.

4. It was reported that Professor A. Fröhlich had retired from the Editorial Board, and Council recorded its appreciation of his years of valuable service.

5. In view of the inevitable delay in writing an Obituary Notice for the *Bulletin*, it was decided that in some cases a short announcement of the death of a member should appear in the *Newsletter*.

6. Notices concerning 1981 Prizes, and the *Whither Mathematics* report, appear separately below.

N. L. BIGGS

CARL LUDWIG SIEGEL 1896-1981

Carl Ludwig Siegel, Honorary Member of the LMS since 1965, died on 5 April 1981.

He was born in Berlin, and studied at the Universities of Berlin and Göttingen. He was professor at Frankfurt and Göttingen before going to Princeton in 1940. In 1951 he returned to Göttingen, and continued to

live there for the rest of his life. His mathematical works covered a range of topics in number theory, complex variable theory, and other branches of mathematics. Four volumes of his collected works have been published.

JERZY NEYMAN 1894-1981

Professor Jerzy Neyman, Honorary Member of the LMS since 1975, died on 5 August 1981.

He was born in Russia and studied at the Universities of Kharkov, Warsaw and London. In 1934-35 he was special lecturer at University College, and from 1935 to 1938 reader in statistics. He was appointed

Director of the Statistics Laboratory at the University of California, Berkely in 1938, and there he built up a school of mathematical statistics of the highest quality. After his retirement in 1955 he became Professor Emeritus, but was later "recalled to active service".

UGC REPORT "WHITHER MATHEMATICS"

At the Council meeting in June it was decided to set up a committee to decide if the Society should reply to this report and if so what form the reply should take. Members are invited to send their views on

these matters to Miss S. M. Oakes at the LMS Office, Burlington House, Piccadilly, London W1V 0NL.

P. R. GOODEY

1981 PRIZES

The Junior Berwick Prize is awarded to D. R. Heath-Brown of Magdalen College, Oxford, for his work in Number Theory.

Junior Whitehead Prizes are awarded to D. F. Holt of the Mathematics Institute,

Warwick, for his work in Group Theory, and to N. J. Hitchin of St. Catherine's College, Oxford, for his work in Differential Geometry.

P. R. GOODEY

NIGERIAN MATHEMATICAL SOCIETY

The LMS has recently made a reciprocity agreement with the NMS. In general terms this means that individual members of each society may become reciprocity members of the other society by paying half the normal individual subscription fee, and may buy publications of the other society at preferential rates. At present the only publication of the NMS is the journal of the Nigerian

Mathematical Society.

LMS members wishing to become reciprocity members of the NMS should write for application forms to The Secretary, Nigerian Mathematical Society, c/o Department of Mathematics, University of Ibadan, Ibadan, Nigeria.

R. A. BAILEY

OXFORD MEETING

The LMS two-day meeting in Oxford, 16-17 April 1982, is a special one concerned with the development of algebra and number theory in the nineteenth and twentieth centuries. The speakers will be H. M. Edwards, T. Hawkins, W. Ledermann,

R. Taton and B. L. van der Waerden. Accommodation will be available in Queen's College. Further information and a registration form will be circulated with the December Newsletter.

DIFFERENTIAL EQUATIONS—DUNDEE 1982

The seventh Dundee International Conference in ordinary and partial differential equations will be held at the University of Dundee, Scotland from Monday, 29 March to Friday, 2 April 1982. The first informa-

tion sheet will be available in September 1981; please send name and address to Commander E. R. Dawson, Department of Mathematics, The University, Dundee DD1 4HN, Scotland, UK.

VISITING MATHEMATICIANS

The Editor is grateful to those Local Representatives who have already sent him lists of visitors, and asks others to do so as

soon as possible. The first list for 1981-82 will appear in the November *Newsletter*.

EDINBURGH MATHEMATICAL SOCIETY

The EMS programme for 1981-82 is as follows.

1981

23 Oct. (Edinburgh), Annual General Meeting and Presidential Address of Professor J. Duncan

13 Nov. (Glasgow), Professor D. Williams

4 Dec. (Edinburgh), Professor J. D. Lambert

1982

22 Jan. (Edinburgh), Professor R. F. Churchhouse

12 Feb. (Edinburgh), Professor F. J. Ursell

5 March (Dundee), Dr. N. J. Young

7 May (Aberdeen), Professor D. G. Northcott

5 June (St. Andrews), Dr. I. N. Stewart
T. A. GILLESPIE J. MARTIN

SALEM PRIZE

The Salem Prize for 1981 was awarded to Peter Jones of the University of Chicago, for his work on different questions in Fourier analysis related to functions with bounded mean oscillation. The prize, established in 1968, is given every year to a young mathematician who is judged to have done outstanding work in the field of interest of 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. Nikishin in 1973, Dr. Hugh Montgomery in 1974, Dr. William Beckner in 1975, Dr. M. R. Herman in 1976, Dr. S. B. Bočkarëv in 1977, Dr. Björn E. Dahlberg in 1978, Dr. Gilles Pisier in 1979 and Dr. Stylianos Pichorides in 1980. The jury consisted of Professor A. Zygmund, Professor L. Carleson, Professor J.-P. Kahane, Professor Ch. Pisot and Professor E. M. Stein.

A. C. OFFORD

NATO ADVANCED STUDY INSTITUTES 1982

NATO Advanced Study Institutes are tutorial courses of two weeks for up to 100 scientists and research students. They aim at the dissemination of advanced scientific knowledge and promotion of international contacts among scientists.

No tuition fees are requested from the participants; some may obtain small grants to assist with travel and living expenses.

Each ASI is held under the responsibility of its Director and Organizing Committee; requests to attend and for support should be directed to those listed below at least four months before the course.

Mathematical Models & Design Methods in Solid-Liquid Separation. Dr. A. Rushton, UMIST, PO Box 88, Manchester M60 1QD, UK. *Location:* Lagos, Portugal; 4-15 January 1982.

Systems of Nonlinear Partial Differential Equations. Prof. J. M. Ball, Dept. of Mathematics, Heriot-Watt University, Edinburgh

EH14 4AS, Scotland. *Location:* Oxford, UK; 25 July-7 August 1982.

Methods in Computational Molecular Physics. Prof. G. H. F. Diercksen, Institut für Astrophysik, Karl Schwarzschild Str. 1, 8046 Garching, FRG. *Location:* Bad Windsheim, Germany; 9-22 August 1982.

Nonlinear Stochastic Problems. Prof. J. M. F. Moura, Caps Complexo, Instituto Superior Técnico, Av. R. Pais, 1000 Lisbon, Portugal. *Location:* Algarve, Portugal; 16-28 May 1982.

Gravitational Radiation. Dr. M. T. Beal-Monod, Physique des Solides, Université de Paris Sud, 91405 Orsay, France. *Location:* Les Houches, France; 2-21 June 1982.

Computational Aspects of Complex Analysis. Prof. H. Werner, Institut für Angewandte Mathematik, Wegelerstr. 6, 5300 Bonn 1, Germany. *Location:* Braunschweig, Germany; 26 July-6 August 1982.

AUTUMN LEAVES

This issue of the *Newsletter* is accompanied by several leaflets. In particular, members should note the remittance form for the *renewal of the annual subscription*; the Treasurer hopes that members will attend to this at their earliest convenience.

Members resident in the UK will also receive information about the Annual Dinner, to be held after the meeting on 20 November. The booking form for the Dinner should be returned by 6 November.

BACKLOG OF BRITISH JOURNALS

This information is published with the co-operation of the respective editorial boards. For the sake of uniformity, the same headings have been adopted as in the statements published biennially by the AMS Notices. The following explanatory statements are also so copied:

Backlog. This is an estimate of the number of printed pages which have been accepted but are not necessary to maintain copy editing and printing schedules.

Waiting times. The quartiles Q_1 and Q_3 are presented to give a measure of dis-

person. They do not include misleading extremes, the result of unusual circumstances arising in part from the refereeing system.

Waiting times are measured in months from receipt of manuscript in final form to receipt of final publication at the library of Liverpool University. When a paper is revised, the waiting time between an editor's receipt of the final revision and its publication may be much shorter than is the case otherwise, so these figures are low to that extent.

C. T. C. WALL

JOURNAL	No. of issues per year	Approx. no. of pages per year	Backlog 30/6/81	Estimated time for paper submitted currently to be published (in months)	Observed waiting time in latest publ. issue (months)		
					Q_1	Median	Q_3
Math. Proc. Cambridge Philos. Soc.	6	1100	0	8-12	9	11	12
Edinburgh Math. Soc. Proc.	3	240	160	20	20	21	25
Glasgow Math. J.	2	200	120	14-20	17	17	20
L.M.S. Bulletin	6	576	50	7-10	7	8	13
Journal	6	1152	180	12-14	13	15	16
Proceedings	6	1152	650	20-30	22	23	24
Mathematika	2	300	0	6-18	10	12	15
Oxford Q.J.M.	4	512	150	18	8	13	16
R.S. Edin. Proc. A.	6	1080	0	6-12	7	8	10

QUEEN MARY COLLEGE MATHEMATICS NOTES

R. Bieri—Homological Dimension of Discrete Groups, 2nd edition: an augmented and corrected reprint of the first edition (£6).

Also still available (all at £3): D. E. Cohen: Combinatorial Group Theory: a topological approach; P. M. Cohn: Morita Equivalence and Duality; P. Hall: The

Edmonton Notes on Nilpotent Groups; B. A. F. Wehrfritz: Infinite Linear Groups; B. A. F. Wehrfritz: Lectures Around Complete Local Rings.

Prices quoted include postage (inland). Please address orders to: Department of Pure Mathematics, Queen Mary College, Mile End Road, London E1 4NS.

COLLINGWOOD PRIZE

This prize was established by the London Mathematical Society in memory of Sir Edward Collingwood and is awarded annually to a student of the University of Durham obtaining First Class Honours in Mathematics and entering a course of post-

graduate study. The 1981 prize has been awarded to Miss Rosemary Cartwright of St. Aidan's College, who will continue her studies at the University of Oxford.

P. J. HIGGINS

MULTIPLE-VALUED LOGIC

The Twelfth International Symposium on Multiple-Valued Logic will be held 25-27 May 1982, in Paris, France. Papers are solicited on the theory and applications of multiple-valued logic. Please submit four copies, typed, double-spaced and including an abstract (20 pages maximum), by 15 November 1981, to Professor Charles B.

Silio, Electrical Engineering Department, University of Maryland, College Park, Maryland 20742, USA. For more information, contact Dr. Jon C. Muzio, Department of Computer Science, University of Manitoba, Winnipeg, Manitoba, R3T 2N2, Canada.

COUNCIL FOR NATIONAL ACADEMIC AWARDS

The principal function of CNAA is the academic co-ordination and maintenance of standards of degree courses run by polytechnics and colleges, and the awarding of such degrees. In a sense, this is not unlike the role of London University in the past when many colleges (which are now degree-giving universities in their own right) prepared students for the External London degree, the difference being that polytechnics set their own examinations.

The top level of CNAA has committees, such as the Committee for Science & Technology, which are concerned with educational policy and the national interest. These committees determine the CNAA attitude, for instance in dealings with the Government. They get their input in the form of (often contradictory!) advice from the various subject boards. Topics on which views have recently been sought include the Finniston Report and Microelectronics.

The bulk of the work, and certainly the area where I have been most involved, is done by subject boards. These have to consider, and approve if appropriate, all course proposals. This is done at a level of detail which is foreign to most universities but many of us could learn a lot. A college has to submit a detailed course proposal, which covers the general aims of the course, entrance requirements, syllabuses for all years of the course (including recommended booklists), the assessment schemes and division of a student's time between the various parts of the course. This has to be backed by an account of the resources available (library, computing, laboratories, etc.) and information about the staff and their ability to mount such a course successfully. A typical submission may run into two volumes, each of 100 pages. Strong arms and a capacious briefcase are essential

for a CNAA board member. A board meeting will, in general, have a brief preliminary discussion before arranging for a small sub-committee to meet the course sponsors, often spending a day at the college. In my experience none of this is a formality, several proposals are sent back with very frank criticisms for possible resubmission. Without approval the course cannot be offered as leading to a CNAA qualification. When approval is granted it is normally for five years in the first instance, with effectively indefinite extension thereafter. External examiners are also approved by the boards; for research degrees it is also necessary to show that the student will receive adequate supervision. The boards themselves consist of representatives of the polytechnics, with a small number of university and industrial members in addition. This representation of people outside the polytechnics is regarded as very important by CNAA, and rightly so.

There is one other activity that board members sometimes have to undertake, the "Council visit". Every college that runs CNAA-approved courses is visited regularly, at about five or six year intervals, by (a group representing) the Council as a whole, covering all disciplines. This is like a UGC quinquennial visitation, if that were to discuss all academic matters and no finance! Such a visit may involve two whole days at the college, probing every facet of its activities. Such an outsider's view of activity helps the college and provides a good education for the visitor. I think that in all places I have visited I have been able to learn something for the benefit of my own department and from my experience of several similar organizations I have often been able to help with local problems.

P. A. SAMET

INDEX TO THE MATHEMATICS SUBJECT CLASSIFICATION (1980)

The Mathematical Library of the University of Ljubljana, Yugoslavia, has prepared the second edition of a comprehensive key word Index to the Mathematics Subject Classification (1980).

The booklet contains 130 pages (size A4). Each significant word used in the classification scheme is listed along with the subject number and the full text of the line in which it appears.

Those interested in obtaining the copies can order them by paying \$20 (520 din for Yugoslavia) for each copy to the account

No. 50100-620-107-25730-32009-007-900 for Društvo matematikov, fizikov in astronomov SRS at Ljubljanska banka, Ljubljana.

In stock there is also the first edition of the Index of the AMS Subject Classification Scheme (1970) the price being \$15 (216 din for Yugoslavia) for each copy.

All inquiries should be made to Mr. Ciril Velkovich, Librarian, Department of Mathematics, University of Ljubljana, 61001 Ljubljana, Jadranska c. 19, pp 543, Yugoslavia.

University of Petroleum & Minerals Dhahran, Saudi Arabia

The Department of Mathematical Sciences will have faculty positions open for the academic year 1982-83, starting 1 September 1982 in the following areas:

Applied Mathematics Analysis Differential Equations Geometry Topology Numerical Analysis Statistics

Academic Qualifications and Experience:

PhD Degree in any of the fields mentioned above or a master's degree in Mathematics plus teaching and research interests.

Language of instruction is English.

Minimum regular contract for two years, renewable. Competitive salaries and allowances. Air conditioned and furnished housing provided. Free air transportation to and from Dhahran each year. Attractive educational assistance grants for school-age dependant children. All earned income without Saudi taxes. Ten months duty each year with two months vacation with salary. There is also possibility of selection for University's ongoing summer programme with good additional compensation.

Apply with complete résumé on academic, professional and personal data, list of references, publications and research details, and with copies of degrees and/or transcripts including home and office addresses and telephone numbers to:

**Dean of Faculty & Personnel Affairs, University of Petroleum & Minerals,
P.O. Box 144, Dhahran International Airport, Dhahran, Saudi Arabia.**

THE AUSTRALIAN NATIONAL UNIVERSITY

invites applications for appointment
to the post of

RESEARCH FELLOW

DEPARTMENT OF MATHEMATICS

Research School of Physical Sciences

From 1 January 1982 the Department of Mathematics will be headed by Professor D. W. Robinson, FAA. Preference will be given to applicants in the following fields—Functional Analysis, Mathematical Physics, Partial Differential Equations and Differential Geometry. Appointment will be for up to three years with the possibility of extension to five years. Salary \$19,821–\$25,871 p.a. Reasonable travel expenses, assistance with housing, superannuation. The University reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants may obtain further particulars from:

The Registrar,
Australian National University,
PO Box 4,
Canberra ACT 2600,
Australia

with whom applications close on 10 November 1981.

LONDON MATHEMATICAL SOCIETY

FRIDAY, 20 NOVEMBER 1981
ANNUAL GENERAL MEETING AT 3.00 p.m.

PROFESSOR T. BROOKE-BENJAMIN (Oxford)
**APPLICATIONS OF ABSTRACT
BIFURCATION THEORY**
at 3.20 p.m.

DR. J. B. PARIS (Manchester)
INDEPENDENCE IN ARITHMETIC
at 5.00 p.m.

Tea will be served at 4.20 p.m.

**Geological Society's Meeting Room,
Burlington House,
Piccadilly, London W1**

THE ANNUAL DINNER
will be at the Martinez Restaurant
Piccadilly at 6.30 p.m.

All interested are very welcome
PLEASE NOTE EARLY START AT 3 p.m.