

LMS NEWSLETTER

No. 81

July 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 L. 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

COUNCIL NEWS

The LMS Council met on 8 May 1981, when the following matters were among those under discussion.

1. The pricing of the Society's journals for 1982 was discussed in detail, bearing in mind that the financial position of the Society is largely dependent on the performance of its periodicals. The traditional policy has been to make a profit of about 10% of turnover, in order to contribute at least 50% of the cost of running the Society.

2. The LMS financial guarantee for the British Mathematical Colloquium was increased to £2,000, in line with current costs.

3. Council accepted the resignation of Professor D. A. Brannan as Council and General Secretary, and thanked him warmly

for his years of sterling service. Dr. P. R. Goodey was co-opted to Council to succeed Professor Brannan, as from 19 June 1981. Dr. Goodey's address is: Department of Mathematics, Royal Holloway College, Egham, Surrey TW20 0EX.

4. There was a long discussion of the arrangements for elections to Council. It was felt that the experiment of nominating more names than there are vacancies had not had the desired effect of broadening the nature of the Council. As an alternative, it was proposed that the Secretary should write to LMS local representatives asking for suggestions. Council would then consider these suggestions with a view to nominating a representative selection of candidates.

N. L. BIGGS

BRITISH MATHEMATICAL COLLOQUIUM

The Thirty-fourth British Mathematical Colloquium will be held at the University College of North Wales, Bangor, Gwynedd on 30 March–3 April 1982. The principal speakers will be D. Gorenstein (Rutgers), S. Smale (Berkeley) and S. T. Yau (San Diego).

The registration fee will be £10 and the cost of accommodation for the full period

will be approximately £50, both will be payable in advance. Application forms with fuller details will be circulated in due course to UK Mathematics Departments and with a later copy of the *Newsletter* to UK members. Further information may be obtained from D. J. Wright, School of Mathematics and Computer Science, UCNW, Bangor.

PROFESSOR GEORGE TEMPLE

Professor George Temple, FRS, who was President of the London Mathematical Society from 1951 to 1953 celebrates his eightieth birthday on 2 September this year. To mark the occasion a dinner is being organized, to which friends, colleagues, former pupils, associates and well-wishers past and present will be warmly welcomed. It will be held on Thursday, 3 September in

The Queen's College, Oxford.

Members of the Society who expect to be able to come are asked to write to Dr. Peter M. Neumann, The Queen's College, Oxford OX1 4AW, as soon as possible. The cost will be in the region of £12 per person (inclusive of wines, liqueurs and dessert).

P. M. NEUMANN

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

ANALYTIC FUNCTIONS—POLAND 1982

The 8th Conference on Analytic Functions, organized by the Institute of Mathematics of the Polish Academy of Sciences in collaboration with the Institute of Mathematics of the University of Lodz, will be held at Blazejewko (Province of Posnań, Lake District), 19-27 August 1982. The Organizing Committee is: C. Andreian-Cazacu (Bucharest), Z. Charzyński (Łódź), P. Dolbeault (Paris), J. Eells (Coventry), A. A. Goncar (Moscow), J. Górski (Kato-

wice), H. Grauert (Göttingen), L. Iliev (Sofia), S. Kobayashi (Berkeley), J. Krzyz (Lublin), J. Lawrynowicz (Łódź)—Chairman, O. Lehto (Helsinki), P. Lelong (Paris), S. N. Mergeljan (Erevan), J. Siciak (Cracow), W. Tutschke (Halle/Saale). For further information write to: Professor Dr. Julian Lawrynowicz, Instytut Matematyczny PAN, Oddział w Łodzi, ul. Kilinskiego 86, PL-90-012 Lodz, Poland (before 1 December 1981).

VISITORS TO IHES

The following mathematicians are expected to visit the Institut des Hautes Études Scientifiques this summer.

<i>Name</i>	<i>Institution</i>	<i>Period</i>
Bernstein, J.	IHES	2 May-31 August
de Blasi, F.	Florence	1 April-31 July
Curry, J.	Boulder University	5 January-31 August
Flicker, Y.	Columbia University	18 January-31 August
Gabber, O.	Tel-Aviv	4 June-30 July
Gromov, M.	Stony Brook, Paris	26 February-30 September
Hardt, R.	Minnesota	30 August-26 September
Kac, V.	MIT Cambridge	27 January-31 July
Katz, N.	Princeton University	23 May-28 August
Kreisel, G.	Stanford	1 June-31 July
Lichtenbaum, S.	Cornell University	8 July-31 August
Mazur, B.	Harvard	5 June-31 August
Torpe, A. M.	Odense	2 May-31 August

MATHEMATICAL LOGIC—SINGAPORE

The Department of Mathematics, National University of Singapore, is holding the First Southeast Asian Conference in Mathematical Logic on 9-13 November 1981. The meeting will consist of workshops in recursion theory and model theory, as well as one-hour invited addresses.

The following mathematicians have accepted invitations to speak: C. Ash, Monash University, J. N. Crossley, Monash University, M. Lerman, University of Con-

necticut, A. McIntyre, Yale University, A. Nerode, Cornell University, G. E. Sacks, Harvard University and MIT, M. Tamthai, Chulalongkorn University.

For further information, write to: C. T. Chong, Organizing Secretary, 1st SEA Conference in Mathematical Logic, Department of Mathematics, National University of Singapore, Singapore 0511, Republic of Singapore.

TIME AND TIDE

An International Conference on Time Series Methods in the Hydrosociences will be held in Burlington, Ontario, 6-8 October 1981. The conference is being organized by National Water Research Institute and co-sponsored by Research and Development Division, Ocean and Aquatic Sciences (both of Canada Centre for Inland Waters) and

Water Resources Branch, Ontario Ministry of Environment. Co-chairmen: Oliver D. Anderson and Abdel H. El-Shaarawi. Further enquiries to Dr. El-Shaarawi, Aquatic Physics and Systems Division, NWRI, Canada Centre for Inland Waters, PO Box 5050, Burlington L7R 4A6, Ontario, Canada.

LMS COMMITTEES AND REPRESENTATIVES

GENERAL PURPOSES COMMITTEE: President (Convenor), Treasurer, Council Secretary, Meetings Secretary, Publications Secretary.

PUBLICATIONS COMMITTEE: Publications Secretary (Convenor); Editor and Secretary of each of the Journal, Bulletin and Proceedings; P. M. Cohn ('79-).

FINANCE COMMITTEE: Treasurer (Convenor), President; Publications Secretary; D. A. Brannan ('74-); P. J. Higgins ('79-).

DURHAM SYMPOSIA COMMITTEE: J. R. Ringrose (Convenor) ('80-), T. J. Willmore ('73-), A. B. Tayler ('79-), C. T. C. Wall ('80-), P. M. Cohn ('76-), J. Crank ('76-).

EDUCATION COMMITTEE: C. A. Rogers (Convenor) ('80-), M. F. Atiyah ('75-), H. B. Griffiths ('75-), J. Mason ('78-), M. E. Rayner ('76-), D. J. Roaf (Secretary) ('78-), S. J. Taylor ('78-), H. Goldstein ('80-), R. F. Churchhouse, P. J. Higgins.

PROGRAMME COMMITTEE: President (Convenor), Meetings Secretary (Secretary) I. G. Macdonald ('81-), J. T. Stuart ('80-), R. L. E. Schwarzenberger ('81-).

BULLETIN: P. M. Neumann (Editor and Secretary) ('79-).

PROCEEDINGS: G. R. Allan (Editor) ('76-); S. J. Taylor (Secretary) ('80-).

JOURNAL: J. S. Pym (Editor) ('79-); R. Y. Sharp (Editor) ('79-).

TECHNICAL EDITORS: E. Philpott-Kent (JLMS) ('80-); A. Sharp (PLMS) ('76-); Mrs. M. Bowker (BLMS) ('80-).

BOOK REVIEWS EDITOR: N. H. Bingham ('81-84).

OBITUARIES EDITOR: J. V. Armitage ('73-).

MONOGRAPHS: D. A. Edwards (Business) (Jan. '78-Dec. '82); P. M. Cohn (Jan. '80-Dec. '84).

LECTURE NOTES: I. M. James (Jan. '78-Dec. '82).

RUSSIAN MATHEMATICAL SURVEYS: K. A. Hirsch ('60-); E. J. F. Primrose ('80-).

TMMS JOINT EDITOR: L. W. Longdon ('73-).

NEWSLETTER: N. L. Biggs ('80-).

1981 JUNIOR BERWICK PRIZE COMMITTEE } President (Convenor);

1981 JUNIOR WHITEHEAD PRIZE COMMITTEE } C. T. C. Wall, P. M. Neumann.

1982 INSTRUCTIONAL CONFERENCE COMMITTEE: J. S. Pym.

JOINT MATHEMATICAL COUNCIL: D. J. Roaf ('80-).

COUNCIL FOR NATIONAL ACADEMIC AWARDS: P. A. Samet ('77-).

RS/IMA JOINT COMMITTEE ON MATHEMATICAL EDUCATION: T. J. Willmore (Jan. '80-Dec. '82).

ADVISORY BOARD OF WARWICK MATHEMATICS RESEARCH CENTRE: C. T. C. Wall (Oct. '78-Sept. '81).

BRITISH NATIONAL COMMITTEE FOR MATHEMATICS: W. H. Cockcroft (Jan. '76-Dec. '81), J. H. Williamson (Jan. '76-Dec. '81), J. F. C. Kingman (Jan. '78-Dec. '83).

BRITISH NATIONAL COMMITTEE FOR THEORETICAL AND APPLIED MECHANICS: L. E. Fraenkel (Jan. '78-Dec. '84).

BRITISH MATHEMATICAL COLLOQUIUM (1981): R. A. Bailey; P. M. Cohn.

UK PERIODICALS' BACKLOGS: C. T. C. Wall ('74-).

TRUSTEES ON APPLIED PROBABILITY TRUST: G. E. H. Reuter (Proxy is P. A. P. Moran) ('71-).

ARCHIVES: Librarian.

PHOTOGRAPHIC ARCHIVES: P. M. Neumann ('81-), J. V. Armitage ('81-).

COLLINGWOOD PRIZE: P. J. Higgins.

ADVISOR ON MATHEMATICS FILMS: D. B. Singmaster ('79-).

EUROPEAN MATHEMATICAL COUNCIL: I. M. James (Publications) ('77-), H. B. Griffiths (Education) ('77-), C. T. C. Wall (Advanced Courses) ('77-).

LOCAL REPRESENTATIVES NETWORK: A. W. Goldie ('74-).

BRITISH ASSOCIATION: L. Fletcher ('80-).

D. A. BRANNAN

OUR APRIL COMPETITION

Conscientious readers of the *Newsletter* will recall the item in the April issue asking for suggestions for an LMS presentation to mark the Royal Wedding. Opinion regarding this item was divided into three categories: (1) that it was a rather odd idea, but presumably there must be a reason for it;

(2) that it was an outrageous idea; (3) that it was a piece of April foolery.

The President received eight letters on the subject, all of them from people holding the second opinion—which only goes to show that mathematicians are a serious-minded lot.

EDITORIAL DEADLINES

This is the last issue of the *Newsletter* in the current academic year. There are now ten issues each year, from October to July inclusive, and we make a serious effort to circulate each issue so that it is available at the beginning of the month. Items for inclusion in the *Newsletter* for month x must be received by the editor by the first

day of month $x-1$. Any items of news are always welcome, as are articles of general interest to LMS members. The receipts from advertising make a useful contribution to keeping down the cost, and members are asked to encourage publishers to use the *Newsletter* in this way.

THE UNIVERSITY OF NEW SOUTH WALES
Sydney, Australia

Professor of Pure Mathematics

Applications are invited for appointment to a Chair of Pure Mathematics in the School of Mathematics. There are four other chairs in the School, including one other in pure mathematics currently held by Professor Gavin Brown whose interests are in harmonic analysis. The chair to be filled will become vacant in 1982 following the appointment of Professor Derek Robinson as Head of the Department of Pure Mathematics at the Institute of Advanced Studies, Australian National University. Applicants should have substantial research interests in an appropriate area.

Enquiries about the appointment may be addressed to Professor V. T. Buchwald, Dean of the Faculty of Science, P.O. Box 1, Kensington, N.S.W., Australia, 2033.

Salary: \$A40,067 per annum. Subject to the consent of the University Council, professors may undertake a limited amount of higher consultative work. The Council reserves the right to fill any chair by invitation.

Full information about conditions of employment and method of application is obtainable from the Secretary General, Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applications close 21 August 1981.

New and Forthcoming

LONDON MATHEMATICAL SOCIETY

41 Theory and Applications of Hopf Bifurcation

B. D. HASSARD, N. D. KAZARINOFF and Y.-H. WAN

The mathematical theory of Hopf Bifurcation is presented and results in a set of bifurcation formulae (and an algorithm to follow in order to be able to apply the formulae in a particular case) to compute the form of oscillations, their amplitudes, their periods, their stability or lack of stability. A set of microfiche computer programs is included.

0521 231582

Members' price £11.25 net

47 Coding the Universe

A. BELLER, R. B. JENSEN and P. WELCH

Axiomatic set theory is the concern of this book, and in particular results are proved about the coding of models, M , of Zermelo — Fraenkel set theory together with the Generalised Continuum Hypothesis, by using a class 'forcing' construction to extend M to a model of the form $L[a]$, where L is Gödel's universe of constructible sets, and $[a]$ is a set of integers which codes all of the cardinality and cofinality structure of M .

0521 280400

Members' price about £9.00 net

49 Finite Geometries and Designs

Edited by P. J. CAMERON, J. W. P. HIRSCHFELD and D. R. HUGHES

A collection of 33 research papers from a conference on the interwoven themes of finite Desarguesian spaces, Steiner systems, coding theory, group theory, block designs, generalised quadrangles and projective planes. This is a comprehensive introduction which aims to interest the nonspecialist in the subject and which indicates how the contributions fit together.

0521 283787

Members' price £11.25 net

50 Commutator Calculus and Groups of Homotopy Classes

H. J. BAUES

A fundamental problem of algebraic topology is the classification of homotopy types and homotopy classes of maps. Here results of rational homotopy theory are extended to a subring of the rationals. The methods of proof employ classical commutator calculus of nilpotent group and Lie algebra theory and rely on an extensive and systematic study of the algebraic properties of the classical homotopy operations.

0521 284244
Forthcoming August

Members' price about £8.00 net

Members' orders for LMS volumes (accompanied by the app
Robin Rees, Cambridge University Press, The Edinburgh

CAMBRIDGE UNIVERSITY PRESS

Leading Books in the CAMBRIDGE SOCIETY LECTURE NOTE SERIES

51 Synthetic Differential Geometry

ANDERS KOCK

This is the first exposition of a synthetic method of reasoning in differential calculus, based on the assumption of sufficiently many nilpotent elements on a real line. The use of nilpotent elements allows one to replace the limit processes of analytic differential geometry and calculus by purely algebraic calculations.

0521 241383

Forthcoming September

Members' price about £9.00 net

52 Combinatorics

Proceedings of the Eighth British Combinatorial Conference 1981

Edited by H. N. V. TEMPERLEY

The articles collected here are texts of the invited lectures given at the Eighth British Combinatorial Conference held at University College, Swansea. The contributions reflect the scope and breadth of applications of combinatorics, and are up-to-date reviews by mathematicians engaged in current research.

0521 285143

Forthcoming August

Members' price about £9.00 net

53 Singularity Theory

V. I. ARNOLD

Professor Arnold is a prolific and versatile mathematician who has done striking work in differential equations and geometrical aspects of analysis. This volume presents seven of his survey articles from *Russian Mathematical Surveys* on singularity theory, the area to which he has contributed most. This is Professor Arnold's own synthesis of a decade's work.

0521 285119

Forthcoming August

Members' price about £9.00 net

54 Markov Processes and Related Problems of Analysis

E. B. DYNKIN

In recent years the theory of Markov Processes has become a powerful tool in partial differential equations and potential theory with important applications to physics. Professor Dynkin has made many profound contributions to the subject, and this volume contains several of his most important expository and survey articles.

0521 285127

Forthcoming September

Members' price about £9.00 net

(appropriate remittance) and all enquiries should be sent to
The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.

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LONDON MATHEMATICAL SOCIETY

DR. P. E. NEWSTEAD (Liverpool)

**QUADRATIC COMPLEXES AND
CONIC BUNDLES**

PROFESSOR B. ECKMANN (Zürich)

**ON THE FUNDAMENTAL GROUPS
OF CLOSED SURFACES**

FRIDAY, 16th October, 1981, at 3.30 p.m.

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

All interested are very welcome

Tea will be served at 4.30 p.m.