LMS NEWSLETTER

DATES OF SOCIETY MEETINGS

Friday, 16 March 1979, Burlington House, Naylor Lecturer—Dr. B. J. Mason.

Friday, 18 May–Saturday, 19 May 1979, Birmingham (see below).

Friday, 15 June 1979, Burlington House, Hardy Lecture.

London meetings will be held in the Geological Society's Rooms, Burlington House, Piccadilly. Council meetings will be held in conjunction with all the above meetings except that on 18 May 1979. Council will meet in London on 11 May 1979.

D. B. SINGMASTER

TWO-DAY MEETING AT BIRMINGHAM

The meeting will begin at 2.00 p.m. on Friday 18 May and will continue on Saturday at 9.30 a.m. It is expected to finish after noon on Saturday. The following have accepted invitations to speak:

Professor G. Glauberman "Simplifying the foundations of simple finite group theory".

Professor A. Joseph "Goldie rank and nilpotent orbits in semisimple Lie groups".

Professor E. Looijenga "The singularities of degenerate K3 surfaces".

Professor A. Katok "Ergodic theory and differential geometry".

Dr. G. P. Scott "Ends, groups and the torus theorem".

Those requiring hotel details or further information should contact B. J. Philp, Department of Pure Mathematics, University of Birmingham, P.O. Box 363, Birmingham B15 2TT. Further details will appear in the May *Newsletter*.

1979 BERWICK PRIZE

At the June meeting this year of the Society the Council will be awarding the Society's Junior Berwick Prize. Accordingly it has appointed the following as the 1979 Prize Committee: C. T. C. Wall (Liverpool), I. M. James (Oxford) and J. W. S. Cassels (Cambridge).

The Council invites members of the Society to submit their views confidentially in writing to any member of the Committee by 1 March. Council reserves the right not to make an award if a candidate of sufficient merit is not recommended by the Prize Committee.

The detailed regulations and procedure for the award of the Prize are available from the undersigned; the principal points that members should note are:

(1) The Prize will be awarded in respect of a definite piece of work published by the Society in any of its publications (at present the three periodicals, the Monographs, and the Lecture Notes Series) in the period 1 January 1975, until 31 December 1978.

(2) The members of the Prize Committee are ineligible for the award.

(3) Only mathematicians who are members of the Society at the date of the award are eligible for the Prize.

(4) The Junior Berwick Prize shall be restricted to members whose age on the 1 June this year does not exceed 40, and who are not Fellows of the Royal Society.

(5) No member can receive the Junior Berwick Prize more than once; winners of the Senior Berwick Prize who satisfy (4) are eligible for the Junior Berwick Prize.

D. A. BRANNAN

RECIPROCITY MEMBERSHIP OF THE A.M.S.

Members desiring to apply for reciprocity membership in the American Mathematical Society can obtain application forms from the L.M.S. Meetings and Membership Secretary, D. Singmaster, Polytechnic of the South Bank, London SE1 0AA.

SYMPOSIUM ON GEOMETRY AND PHYSICS

A Durham symposium on Geometry and Physics will be held from 11–21 July 1979 in Grey College, Durham. The main topics of the meeting will be Gauge theories of elementary particles and General Relativity. Physicists and mathematicians will be participating, primarily by invitation, but anyone interested in further particulars should write to M. F. Atiyah, The Mathematical Institute, University of Oxford.

SYMPOSIUM ON RING THEORY

A Durham symposium on noetherian rings and rings with polynomial identity will be held on 22 July–1 August 1979, in Grey College, Durham. The programme will be concerned with basic developments in these topics, together with their applications, rather than peripheral questions arising from other disciplines.

Provisional acceptance as speakers has been received from Amitsur, Artin, Herstein, Procesi, Small, Stafford, and others. Attendance is essentially by invitation, but a few places should be available for other mathematicians who have not been invited and would like to attend. They should write to A. W. Goldie, Department of Pure Mathematics, Leeds University.

DUNDEE CONFERENCE ON NUMERICAL ANALYSIS

A conference on Numerical Analysis will be held in the University of Dundee on 26–29 June 1979. The following have accepted invitations to speak at the meeting; O. Axelsson, J. C. Butcher, E. W. Cheney, L. Collatz, J. Cullum, J. D. Lambert, D. Q. Mayne, K. W. Morton, S. P. Norsett, H. J. Stetter, P. Wesseling and E. L. Wachspress. Further details can be obtained from G. A. Watson, Department of Mathematics, University of Dundee, Dundee DD1 4HN.

N.A.T.O. INSTITUTE ON GAUGE THEORIES

A N.A.T.O. Advanced Study Institute on Recent Developments in Gauge Theories will be held at the Institut d'Etudes Scientifiques de Cargèse (Corsica) from 27 August to 7 September 1979. It is organised by: G. 't Hooft (Utrecht), A. Jaffe (Harvard), H. Lehmann (Hamburg), P. K. Mitter (Paris VI), I. M. Singer (Berkeley) and R. Stora (CERN).

In addition the following have so far agreed to participate: C. Callan (Princeton), J. Fröhlich (Bures sur Yvette), J. Glimm (Rockefeller), C. Itzykson (Saclay), M. Lüscher (Hamburg), G. Mack (Hamburg), K. Osterwalder (Zürich), G. Parisi (Rome), K. Symansik (Hamburg), G. Toulouse (ENS/Paris), K. Wilson (Cornell) and E. Witten (Harvard). Further information can be obtained from: Mlle. M.-F. Hanseler, Secretariat de l'Institut d'Etudes Scientifiques de Cargèse, 4, place Jussieu, Tour 16, F-75230 Paris CEDEX 05.

ST. ANDREWS COLLOQUIUM

The Edinburgh Mathematical Society will hold the next St Andrews Colloquium on 9–19 July 1980. The format is expected to be similar to that of the last colloquium with three main lecture courses and two research seminars. Further details will be announced in due course.

C. M. Campbell

TEACHING OF MATHEMATICS IN SCHOOLS

The Committee of Inquiry into the Teaching of Mathematics in Schools which has been set up by the Secretary of State for Education and Science and the Secretary of State for Wales under the chairmanship of Dr. W. H. Cockcroft has now started its work. Its terms of reference are "To consider the teaching of mathematics in primary and secondary schools in England and Wales, with particular regard to the mathematics required in further and higher education, employment and adult life generally, and to make recommendations".

At its early meetings the Committee has decided that it wishes to receive evidence from as wide a variety of interested persons as possible. At a later stage the Committee intends to invite some of those who have

submitted written evidence to meet it for further discussion.

In view of its terms of reference and the Government paper of March 1978 in which the proposal to set up an Inquiry was announced, the Committee will include among the matters it considers

(i) The basic computational skills of school children

(ii) The supply and training of those who teach mathematics

(iii) The mathematics syllabuses used in public examinations

(iv) Communication between further and higher education, employers and schools about each group's needs and viewpoints

(v) The mathematics required as a preparation for further and higher education

(vi) The mathematics required in employment

(vii) The mathematical demands made on adults in daily life.

It will particularly welcome evidence relating to any of these matters.

Members wishing to submit evidence on any matters appropriate to the terms of reference of the committee should send it (to arrive before the end of February) to the Secretary: W. J. A. Mann, Committee of Inquiry into the teaching of Mathematics in Schools, Elizabeth House, York Road, London SE1 7PH.

RADIO CHALLENGE

Mathematical Education on Merseyside is a local co-ordinating committee with representatives from the Teachers, L.E.A. Maths. Advisers, and all branches of Higher Education. In the three years of its existence it has tried to co-ordinate the support services for Secondary Mathematics teachers, and where appropriate, to take new initiatives aimed at stimulating useful activities. In the past three years we have tried most of the conventional avenues, with varying success and effectiveness. Stimulated by the Scottish "Mathematical Challenge" we considered running a local competition aimed at a cross-section of abilities at age 15–16 but finally decided instead to mount a competition for the under 14 age group. The object is to increase interest in and enjoyment of mathematics early in the secondary school before pupils have given up or been "turned off". We offered the competition to 150 schools, 50 schools responded, asking for 3,500 papers. The questions were printed attractively with cartoons, and there were 998 entries of which 29 were essentially completely correct. The first Challenge ended with a prizegiving ceremony incorporating a trial run of a quiz show. We will offer CHALLENGE 79 with a series of three papers to the under 14 age group and we intend to pick a winner from each school entering more than 10% of their year, as well as overall winners. Finance for the next rounds has been supplied by three large employers of school leavers—I.C.I. (Mond), Littlewoods and Royal Insurance.

I approached the two local radio stations asking for publicity for CHALLENGE. Both agreed, but RADIO CITY suggested that we try to mount a weekly quiz programme in mathematics. My initial misgiving that searching questions requiring thought would be impossible because of the need for instant answers met with the response "Oh, ask a question which requires three minutes thought, and we can play a pop record while the competitor (and the radio audience) thinks. Further, this might encourage a larger audience for the programme than just straight mathematics." So a working party of teachers and university staff set to work, devising questions of at least two types— quickies, and those requiring thought. Radio City insisted that all questions had to be phrased in non-technical jargon, and a useful byproduct was the deeper discussion of syllabus and methods of teaching appropriate for this age group needed before deciding which questions were fair. Eight schools were chosen to represent different geographical areas and types of school, each school had a team of three and up to 50 supporters and a "Top of the Form" type knock-out competition was broadcast each Sunday at 7.30 p.m. from October till December 1978, resulting in final victory for Haydock High, a Comprehensive School near St. Helens. The competing schools all enjoyed their efforts, and presumably benefited from practising the skills demanded. It is too early to know if the exercise provided much stimulus outside the competing schools.

Anyone wanting more information about Mathematical Education on Merseyside or its activities is welcome to write with a specific request.

S. J. TAYLOR

LECTURESHIPS IN MATHEMATICS: UNIVERSITY COLLEGE

Applications are invited for two lectureships in Mathematics at University College, London. Candidates may have special interests in any branch of pure or applied mathematics. Salary Scale £3,909–£7,754 plus £450 London Allowance. Applications, including the names of two referees, should be addressed to the Assistant Secretary (Personnel), University College London, Gower Street, London WC1E 6BT, from whom further particulars can be obtained.

BOOKS RECEIVED FOR REVIEW IN THE *BULLETIN*

An Introduction to Numerical Methods for Unconstrained Optimization: M. Wolfe: pp. 312, £8·50. (Van Nostrand Reinhold).

Fluid Mechanics: Ruth H. Rogers: pp. 322, £9·75. (Routledge and Kegan Paul).

Foundations—Essays in Phil., Logic, Mathematics and Economics: F. P. Ramsey: pp. 287, £9·50. (Routledge and Kegan Paul).

College Algebra and Trigonometry: M. Fraser: pp. 510, £11·25. (Addison Wesley).

An Introduction to Abstract Algebra: T. A. Whitelaw: pp. 166, £4·95. (Blackie).

First Steps in Numerical Analysis: R. Hosking: pp. 202, £2·95. (Hodder & Stoughton).

Algebraic Geometry (ed. J. I. Igusa): pp. 125, £8·50. (Johns Hopkins).

The Theory of Relativity Revisited: H. W. Grayson: pp. 261, $10. (Dorrance).

Mathematical Economics: J. E. Wood: pp. 364, £6·95. (Longmans).

Numerical Analysis: R. F. Churchhouse: pp. 69, £1·50. (Chris Davies).

Bochner Integral: J. Mikusinski: pp. 233, Sfrs. 74. (Birkhauser Verlag).

Problems and Solutions in Theoretical Statistics: D. R. Cox and D. V. Hinkley: pp. 193, £5. (Chapman & Hall).

Mathematical Logic—an Introduction to Model Theory: A. Lightstone; pp. 338, £27. (Plenum).

Elements of Lattice Theory: L. A. Skornjakov (trans. V. Kumar): pp. 148, £15. (Adam Hilger).

Introductory Graph Theory: B. Andrasfai: pp. 268, £8. (Adam Hilger).

Geometric Probability: H. Solomon: pp. 174, $14·50. (SIAM).

The Minkowski Multidimensional Problem: A. V. Pogovelov: pp. 106, £9·70. (Wiley).

An Introduction to Mathematical Modelling: E. A. Bender: pp. 256, £11·95. (Wiley).

Hilbert's Third Problem: V. G. Boltianskii: pp. 228, £14. (Wiley).

Nielsen Information and Exponent Families: O. Barndorff: pp. 238, £13·50. (Wiley).

Calculus (3rd ed.): S Salas and E. Hille: pp. 573, £12·35. (Wiley).

Random Allocations: V. Kolchin et al.: pp. 262, £14·05. (Wiley).

A Sampler on Sampling: B. Williams: pp. 254, £11·25. (Wiley).

Introductory Functional Analysis with Applications: E. Knyszig: pp. 688, £15. (Wiley).

Hypergeometric Integrals: H. Exton: pp. 316, £15. (Wiley).

Applied Abstract Analysis: J. P. Aubin: pp. 263, £15·50. (Wiley).

Textbooks of Dynamics: F. Chorlton: pp. 263, £3·90. (Wiley).

Characterisation of the Probability Normal Law: A. Mathai, G. Pederzoli: pp. 148, £3·50. (Wiley).

Environmental Aerodynamics: R. S. Scorer: pp. 448, £20. (Wiley).

Prediction and Improved Estimation in Linear Models: J. Biddy and H. Tontenbourg: pp. 188, £7·95. (Wiley).

Lectures in Semigroups: M. Petrich: pp. 168, £7·75. (Wiley).

Mathematics of Manpower Planning: S. Vajda: pp. 206, £11·75. (Wiley).

Mathematics for Operations Research: W. Marlow: pp. 483, £11·75. (Wiley).