

LMS NEWSLETTER

No. 49

May 1978

DATES OF SOCIETY MEETINGS

Friday/Saturday, 19/22 May 1978, Gregynog, Powys, weekend meeting.

Friday, 16 June 1978, Burlington House, Whitehead meeting.

Friday, 13 October 1978, Burlington House.

Friday, 17 November 1978, Burlington House. Annual General Meeting and Presidential Address.

Friday, 19 January 1979, Newcastle, Joint meeting with E.M.S.

Friday, 16 March 1979, Burlington House Naylor Lecture.

Friday/Saturday, 18/19 May 1979, Birmingham.

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

Note that the date of the October 1978 meeting has been altered.

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 those on 19-22 May 1978, and 18-19 May 1979. Council will meet in London on 12 May 1978 and 11 May 1979.

D. B. SINGMASTER

L.M.S. WEEKEND MEETING: REPRESENTATIONS OF ALGEBRAS

The Society is organising a weekend meeting at Gregynog Hall, Newton, Powys on 19-22 May 1978. The main speakers are:

P. Gabriel (Zurich):

'Main trends in representations of algebras' (3 lectures)

M. Duflo (Paris):

'Primitive Ideals in semi-simple enveloping algebras' (3 lectures)

J. C. Jantzen (Bonn):

'Representations with a highest weight' (1 lecture)

M. C. R. Butler (Liverpool):

'Functorial constructions for indecomposable modules' (1 lecture)

Some accommodation, at a cost of approximately £25 for the weekend, is still available. For further information write to Dr. F. W. Long, Department of Pure Mathematics, The University College of Wales, Aberystwyth, Dyfed.

MEETING AT THE HELSINKI ICM

There will be a brief meeting of the Society during the ICM at Helsinki in the evening of Friday, 18 August 1978. The Society has a traditional admissions ceremony. At each meeting, current members who have not previously been admitted are formally admitted and sign

the Membership Book (which dates from the foundation of the Society). This meeting will give our many overseas members an opportunity to be admitted, to sign the Book and to meet some of the officers and U.K. members.

D. B. SINGMASTER

INTERNATIONAL SOCIETY FOR GENERAL RELATIVITY AND GRAVITATION

This society was set up five years ago to provide an international framework for the coordination of activities in the area of general relativity and gravitation theory. Its present activities include the organisation of international conferences (generally every 3 years) and the publication of a

journal. The present membership fee is \$10 per annum. Further details can be obtained from the President, P. G. Bergmann, Department of Physics, Syracuse University, Syracuse, New York 13210, U.S.A.

OPEN UNIVERSITY COMBINATORICS CONFERENCE

A one-day Combinatorics Conference will be held at the Open University, Milton Keynes, on Friday 12 May, from 10.45 to 4.45. The lectures will take place in the Mathematics Building, and the speakers will include J.-C. Bermond and M. Las Vergnas (Paris), A. T. White (Western Michigan and Royal Holloway College), F. Piper (Westfield College), C. J. H. McDiarmid (L.S.E.), M. Gordon (Essex),

P. J. Cameron (Oxford), and C. St. J. A. Nash-Williams and L. Andersen (Reading). There will also be a Poster Session to which all participants are invited to contribute. Since numbers must be restricted to 80, prospective participants are asked to send in an application form, available from Dr. R. J. Wilson, Faculty of Mathematics, The Open University, Milton Keynes MK7 6AA.

SUMMER SCHOOL ON PROBABILITY

A Summer School on Probability will be held at Saint Flour, France on 5-22 July 1978. Three courses will be given.

R. AZENCOTT, (Paris VII): "Grandes déviations: théorèmes à la Cramer-Chernov et petites perturbations de systèmes dynamiques".

Y. GUIVARC'H (Rennes): "Fonctions

harmoniques et comportement à la frontière des marches aléatoires".

D. GUNDY, (Rutgers): "Théorie des martingales, notion de temps multi-dimensionnel".

Further details can be obtained from P. L. Hennequin, B.P.45, 63170 Aubiere, France.

FUNCTIONAL EQUATIONS AND APPROXIMATION

A Summer School and Conference on Functional Differential Equations and the Approximation of Fixed Points sponsored by the Sonderforschungsbereich 72 will be held on 17-21 July, 1978 at the University of Bonn. Instructional surveys will be given by J. C. Alexander (Maryland), B. C.

Eaves (Stanford), J. K. Hale (Brown), R. D. Nussbaum (Rutgers) and R. Saigal (Northwestern). Further information can be obtained from H.-O. Peitgen, Sonderforschungsbereich 72, Universität Bonn, Wegelerstrasse 6, D-5300 Bonn, Germany.

SYMPOSIUM ON GROUPS IN MECHANICS

An international symposium on group theoretic methods in mechanics, sponsored by the IUTAM and the IMU, will be held in Novosibirsk, USSR on 25-29 August 1978. It is intended to cover the following areas—Group theoretical methods in qualitative analysis of differential equations; Applications of group theory to models of mechanics; Ad hoc methods for inte-

gration of equations in mechanics. Invited speakers include W. F. Ames, G. Birkhoff, L. Gärding, N. H. Ibragimov, A. Lichnerowicz, S. P. Novikov, L. V. Ousjannikov, R. S. Rivlin and D. H. Sattinger. Further details can be obtained from the Symposium Committee, Institute of Hydrodynamics, Novosibirsk 630090, USSR.

INFORMATION THEORY, DECISION THEORY AND RANDOM PROCESSES

The Eighth Prague Conference on Information Theory, Statistical Decision Functions and Random Processes will be held in Prague, Czechoslovakia on 28 August-1 September, 1978. Invited speakers include A. Aleskeviciene (USSR), A. Blanc-Lapierre (France), I. Csiszár (Hungary)

M. Iosifescu (Rumania), F. Jelinek (U.S.A.), G. Longo (Italy), and F. Topsøe (Denmark). Further information can be obtained from 8th Prague Conference ÚTIA-ČSAV, Pod vodárenskou věží 4, 180-76 Praha 8, Czechoslovakia.

MATHEMATIKA

Mathematika is available at a special rate to individual members of the Society for their personal use. Details appear inside the cover of the current issue and

can be obtained from *Mathematika*, The Department of Mathematics, University College, Gower St., London WC1E 6BT.

BERLIN CONFERENCE ON CATEGORICAL TOPOLOGY

An International Conference on Categorical Topology will be held in the Free University of Berlin on 27 August–2 September 1978. Invited speakers include B. Banaschewski, H. L. Bentley, G. C. L. Brümmer, J. B. Cooper, Z. Frolík, K. A. Hardie, R.-E. Hoffmann, S. S. Hong, M. Hušek, F. E. J. Linton, S. MacLane, E. Michael, Chr. J. Mulvey, A. Mysiör,

R. Nakagawa, L. D. Nel, D. Pumplin, M. Rajagopalan, M. D. Rice, G. Salicrup, Z. Semadeni, G. E. Strecker, W. Tholen, R. Vazquez, R. Wiegandt, M. Wischnewsky, and O. Wyler.

Further details can be obtained from G. Preuss, Institut für Mathematik, Freie Universität Berlin, Hüttenweg 9, D-1000, Berlin 33, Germany.

I.M.A. CONFERENCES

The Institute of Mathematics and its Applications will hold the following conferences. Further details can be obtained from the Institute of Mathematics and its Applications, Maitland House, Warrior Square, Southend on Sea, Essex.

<i>Conference</i>	<i>Date</i>	<i>Place</i>
Television in the Mathematics classroom	6 May 1978	Chelsea Coll. London
Computing in Schools	10 June	London School of Pharmacy
Markov Decision Processes	17–19 July	Manchester
Optimisation of Stochastic Systems	6–8 September	Oxford
Modelling of Turbulent Diffusion	11–13 September	Liverpool
Ordinary Differential Equations	December	To be announced
Black Holes	5 January 1979	To be announced

S.R.C. MATHEMATICS COMMITTEE

A review of the activities of the Science Research Council Mathematics Committee in 1976–7 has been published. Copies have been circulated to Mathematics Departments in Universities. Further copies

can be obtained from Mrs. M. M. Inglis, Mathematics Section, Science Research Council, State House, High Holborn, London WC1R 4TA

H. O. FOULKES PRIZE FUND

Some friends and colleagues of the late Professor Foulkes have decided in consultation with Mrs. Beryl Foulkes, to commemorate his life and work by setting up a fund to endow a prize bearing his name. It is intended that the Prize should be awarded annually to undergraduates at Swansea who show exceptional promise in Pure Mathematics.

H. O. Foulkes devoted his whole life to mathematics and the teaching of mathematics. In 1947, he joined the University College of Swansea, which he served steadfastly until his death last year. By his

research, he made distinguished contributions to algebra and combinatorial theory. He was also a superlative teacher, and there are many former pupils who feel deeply indebted to him. They, as well as those who knew him as a colleague and those who enjoyed his friendship, are invited to subscribe to the Prize Fund.

Please send contributions to Dr C. N. Linden. (Cheques payable to "The H.O. Foulkes Prize Fund"). In due course, the establishment of the Prize will be announced.

J. D. WESTON

INTERNATIONAL CONGRESS OF MATHEMATICIANS: HELSINKI

As previously announced the 1978 International Congress of Mathematicians will be held in Helsinki on 15–23 August. The plenary addresses are

- L. V. Ahlfors: Quasiconformal mappings, Teichmüller spaces, and Kleinian groups.
- A. P. Calderón: Commutators, singular integrals on Lipschitz curves and applications.
- A. Connes: On the classification of von Neumann algebras.
- R. Dobrushin: Classical statistical mechanics as a branch of probability theory.
- R. D. Edwards: The topology of manifolds and cell-like maps.

- D. Gorenstein: The classification of finite simple groups.
 M. Kashiwara: Micro-local analysis.
 N. N. Krasovskii: Control under uncertain information and differential games.
 R. Langlands: Automorphic representations and L -functions.
 Y. Manin: Modular forms and number theory.
 S. Novikov: Linear operators and integrable Hamiltonian systems.
 R. Penrose: The complex geometry of the natural world.
 W. Schmid: Representations of semisimple Lie groups.
 A. N. Shiryaev: On absolute continuity and singularity of probability measures on functional spaces.
 W. P. Thurston: Geometry and topology in dimension three.
 A. Weil: History of mathematics: Why and how.
 S.-T. Yau: The role of partial differential equations in differential geometry.

The 45-minute address to the various sections will be given by the following:

- SECTION 1. *Mathematical logic and foundations of mathematics:*
 M. Harrington, D. A. Macintyre, G. S. Makanin, D. A. Martin, R. Solovay.
- SECTION 2 *Algebra:*
 M. Aschbacher, K. S. Brown, B. Fischer, M. Hochster, V. Kac, W. van der Kallen, V. P. Platonov, A. V. Roiter, A. Suslin.
- SECTION 3. *Number theory:*
 L. Chudnovsky, J. H. Coates, H. Iwaniec, N. M. Katz, G. Shimura, R. Tijdeman, R. C. Vaughan.
- SECTION 4. *Geometry:*
 O. Bogoyavlensky, R. Connelly, M. do Carmo, M. Gromov, V. M. Harlamov, D. G. Larman, R. Osserman, K. Shiohama.
- SECTION 5. *Topology:*
 J. W. Cannon, S. E. Cappell, A. J. Casson, D. Fuks, A. Hatcher, J. Lin, I. Madsen, S. Mardešić, D. C. Ravenel, J. E. West.
- SECTION 6. *Algebraic geometry:*
 S. Bloch, F. A. Bogomolov, D. Gieseker, E. Looijenga, C. Procesi, S. Ramanan, K. Ueno.
- SECTION 7. *Lie groups, algebraic groups, automorphic functions:*
 I. Bernstein, W. Casselman, V. G. Drinfeld, G. R. Kempf, J. Lepowsky, I. Piatetski-Shapiro, T. Shintani.
- SECTION 8. *Real and functional analysis:*
 W. Beckner, S. V. Boskarov, C. Foias, A. M. Garsia, E. M. Nikishin, N. K. Nikol'skii.
- SECTION 9. *Complex analysis:*
 A. Baernstein, P. A. Griffiths, B. Korenblum, J. Moser, Y. -T. Siu, H. Skoda, J. Väisälä.
- SECTION 10. *Operator algebras and group representations:*
 J. Dixmier, R. G. Douglas, A. Kirillov, S. Sakai, J. R. Wallach, G. J. Zuckerman.
- SECTION 11. *Probability and mathematical statistics:*
 A. Borovkov, C. Dellacherie, M. Fukushima, P. Révész, S. R. S. Varadhan, A. D. Wentzell.
- SECTION 12. *Partial differential equations:*
 F. J. Almgren, V. A. Ivrii, H. McKean, R. B. Melrose, P. H. Rabinowitz, J. Sjöstrand, A. Weinstein.
- SECTION 13. *Ordinary differential equations and dynamical systems:*
 A. D. Bruno, M. R. Herman, Ju. Ilyashenko, J. Mallet-Paret, R. McGehee, J. Palis, Jr.
- SECTION 14. *Control theory and optimization problems:*
 P. Brunovský, F. H. Clarke, I. Ekeland, N. V. Krylov, H. J. Sussman.
- SECTION 15. *Mathematical physics and mechanics:*
 H. Araki, M. F. Atiyah, J. L. Bona, J. Fröhlich, A. M. Jaffe, Ya. G. Sinai.
- SECTION 16. *Numerical analysis:*
 C. de Boor, J. Nitsche, P. A. Raviart, A. A. Samarskii, V. Thomée.
- SECTION 17. *Discrete mathematics and mathematical aspects of computer science:*
 J. H. Conway, W. Haken, S. V. Jablonskii, G. C. Rota, G. Rozenberg, C. C. Sims, D. Uhlig.
- SECTION 18. *Mathematics in the Social and Biological Sciences:*
 R. I. Aumann, S. I. Rubinow.
- SECTION 19. *History and education:*
 T. F. Banchoff, A. I. Markushevich.

Further information can be obtained from ICM 78 P.O. Box 161, SF-00111 HELSINKI 171, Finland.

EDINBURGH: RESEARCH FELLOWSHIP

Applications are invited for the William Gordon Seggie Brown Research Fellowship in Mathematics, tenable for the academic year 1978/79 in the University of Edinburgh. Stipend is in the Research Salary range 1A, which is equivalent to the Lecturers' scale. Applications (before 30

April, 1978) should be addressed to Professor A. G. Mackie, Department of Mathematics, University of Edinburgh, James Clerk Maxwell Building, King's Buildings, Mayfield Road, EDINBURGH EH9 3JZ, from whom further particulars can be obtained.

UNIVERSITY OF LEICESTER

Chair of Statistics

Applications are invited from candidates engaged in any field of statistics for a new Chair of Statistics in the Department of Mathematics, tenable from 1 October 1978 or as soon as possible thereafter.

Further particulars from the Registrar to whom applications should be sent by 12 May 1978. Candidates in the U.K. should submit fifteen copies of their application (overseas candidates may submit one copy).