

LMS NEWSLETTER

No. 39

May 1977

DATES OF SOCIETY MEETINGS

Friday, 20 May 1977, University College, Bangor. (see below).

Friday, 17 June 1977, Burlington House, Professor J. K. Moser (Hardy Lecturer) and Professor A. Baernstein.

Friday, 21 October 1977, Burlington House.

Friday, 18 November, Burlington House, Annual General Meeting.

Friday/Saturday, 16/17 December 1977, Trinity College, Cambridge, Hardy Centenary Meeting.

Friday, 20 January 1978, Burlington

House.

Friday, 17 March 1978, Burlington House.

Friday/Saturday, 19/20 May 1978, Gregynog, Powys, weekend meeting.

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

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 London meetings and the meeting at Bangor. Council will also meet on 12 May 1978.

D. B. SINGMASTER

COUNTRY MEETING—20 MAY, 1977

There will be a country meeting of the Society at the University College of North Wales, Bangor, LL57 2UW. The two speakers and titles will be W. Tutte (Waterloo)—“The Golden Mean in the Theory of Chromatic Polynomials” and R. H. Bott (Harvard)—“Continuous Cohomology of Diffeomorphism Groups.” Lectures will be at 3.30 and 5.00 in the Mathematics/

Chemistry building. There will be a display of computer graphics applied to mathematical problems at 1.45 and 2.30. There will be a buffet dinner at 6.30 open to anyone interested. Local arrangements are being handled by I. Morris from whom further details can be obtained.

D. B. SINGMASTER

HARDY LECTURER—1977

The Society's Hardy Lecturer for 1977 is Professor Jürgen Moser of the Courant Institute of Mathematical Sciences, New York. Professor Moser will be speaking at nine universities and will be giving the Hardy Lecture to the Society as shown in the provisional timetable below. Further details will appear in the next *Newsletter*. Professor Moser will be spending a few days at each university—for details of the visits, write to the local organiser.

University	Topic	Date	Time	Place (Local Organiser)
Sussex	4	3 June	2.15	Room 5B14, Maths & Physics Bldg. (C. J. Mulvey)
Trinity College, Dublin	4	7 June	11.00	Department of Mathematics (R. Aron)
Oxford	4	8 June	8.30 p.m.	St. Catherine's (M. F. Atiyah)
Chelsea College, London	2	13 June	5.00	Chemistry Lecture Theatre N221 (F. Jellett)
Cambridge	3	15 June	11.00	Room A, Arts School, Bene't St. (J. W. S. Cassels)
LMS (Hardy Lecture)	1	17 June	5.00	Burlington House (D. Singmaster)
Aberystwyth	1	20 June	2.30	Dept of Pure Mathematics (A. O. Morris)

Lancaster	1	23 June	2.30	Room D.46, Cartmel College (P. L. Walker)
Heriot-Watt	3	27 June	4.00	Riccarton Campus (A. Truman)
Warwick	1	1 July	4.00	Mathematics Institute (D. B. A. Epstein)

1. Closed orbits and bifurcation theory.
2. Stability in celestial mechanics.
3. Recent results on the n -body problem.
4. Integrable Hamiltonian systems.

Different lectures on the same topic may cover different aspects of the topic.

D. B. SINGMASTER

PERSONAL ITEM

Professor J. R. Ringrose (Newcastle upon Tyne) was recently elected to the Royal Society for distinguished contributions to the theory of algebras of

operators on Hilbert Space, especially to the theory of C^* -algebras.

D. B. SINGMASTER

INTERNATIONAL CONGRESS OF MATHEMATICIANS

The International Congress of Mathematicians will be held in Helsinki, Finland, on 15–23 August, 1978. Further details will be issued in the autumn of 1977. Correspondence concerning the Congress

should be addressed to International Congress of Mathematicians, ICM 78, Department of Mathematics, University of Helsinki, Hallituskatu 15, SF-00100 Helsinki 10, Finland.

KEEPING IN TOUCH WITH OUR SOVIET COLLEAGUES

The following is a considerably abridged version of a letter appearing in the Notices of the American Mathematical Society 24 (1977), pp. 180–182.

Editor, Notices,

Perhaps the most important single point I would like to make is that in my opinion Western scientists do not make full use of the existing channels of communication, perhaps because of traditional Western misinformation as to what is or is not feasible.

Invitations to the West

The majority of Western scientists are probably familiar with the frustrating fact that senior (non-party) Soviet scientists invited to Western conferences find it impossible to take up the invitation. The first step for any Soviet citizen in obtaining a visa to travel abroad is to get a reference from the Party Committee of his place of work recommending the visit; there are several steps subsequent to this at which hitches may occur, but I believe the first step to be the essential obstacle, since if the *Partkom* is prepared to give its backing

the remaining problems may turn out to be soluble. Now there is some reason to believe that this obstacle may be less serious for younger scientists. This optimistic view is suggested partly by analogy with the case of visits from the USSR to the countries of eastern Europe (a closer analogy than most people in the West will be aware of); and partly by speculation as to the nature of the decision-making procedure within the *Partkom* of universities and institutes.

I would thus like to urge that every possible opportunity be taken to invite the younger generation of Soviet scientists to meetings in the West or to Western universities. In my field of mathematics (algebraic geometry) there is certainly no shortage of excellent young scientists, and visits to the West by such people, even for short periods, should provide for an extremely stimulating flow of ideas and information in both directions. I would like to suggest that as a matter of form every invitation to a senior scientist should contain a clause to the effect that if the person invited feels unable to take up the

invitation then he suggest the name of a junior colleague or research pupil who could be interested in coming in his stead. Of course, one does not necessarily expect that a research student of a particular scientist would be able to do more than give a token representation, but his presence will allow a flow of ideas, and will do something towards correcting the balance in the make-up of Soviet delegations.

As far as I am aware almost any young Soviet scientist would jump at the opportunity of travelling to the West, and be extremely keen to attempt the considerable task of applying for permission. There's probably a practical upper bound of about two months on the length of time a Russian scientist would be allowed out, and one should allow for some uncertainty in the time of arrival.

Even for a (non-party) scientist with an impeccable student and Komsomol background the probability of being allowed out is probably no greater than one-tenth, and it seems to be the case that Western organisers who have had repeated failures in attempts to invite Soviet colleagues sometimes get discouraged and give up trying. This is obviously wrong on probabilistic grounds, since if the probability of success is small one should clearly make more attempts rather than fewer. And if one draws a blank after taking reasonable measures over a period of several years (such as writing periodic supporting letters to individual members of the University or Institute management urging the advantages to both Western and Soviet science to be gained by some particular visit) then one is in a stronger position to complain that the Soviet side is being uncooperative. There is certainly no way in which invitations addressed to an individual scientist, or letters enquiring as to the best way of inviting either him or one of his students could compromise him or lead to retaliation from the authorities. I regard suggestions sometimes made that we take a hardline attitude and boycott delegates we regard as too "official" as potentially extremely harmful and counter-productive.

To sum up this section, it is my firm conviction that success in this matter will be directly proportional to the amount of patient effort which we are willing to exert.

Visits to the Soviet Union

The possibilities are as follows: (a) as a tourist; (b) by formal invitation; (c) under the International Cultural Exchanges.

(a) It is perfectly feasible to visit Moscow or Leningrad as a tourist, and nowadays the tourist gets a very reasonable deal (travelling with a group may be very much cheaper, and the group activities are not compulsory). When applying for a visa one is required to name the Soviet citizens one intends to meet, but there can be no objection to a scientist who intends to get in touch with colleagues declaring only one name. It's perhaps worth pointing out in connection with the forthcoming International Congress of Mathematicians that Leningrad is just one night on the train away from Helsinki, and is a town that has considerable attraction to the tourist; for details consult Intourist.

(b) Soviet scientists may be very willing to attempt to get an invitation made out to a Western colleague to visit them for periods of up to two months. However, it's fair to say that this is not necessarily straightforward. Certainly any Western scientist interested in this possibility should in the first instance write well in advance to a Soviet colleague with whom he has good scientific relations to discuss tactics.

(c) There are Cultural Exchanges in operation between the Soviet Union and every Western country. They take place both at the level of visiting fellowships (organised through the Academy of Sciences) and visiting studentships (through the Ministry of Higher Education), and represent almost the only practical possibility for a Western scientist to spend a long period (six months or a year) in contact with a Soviet scientific centre. I would strongly recommend the latter to any Western research student or recent Ph.D. who is interested in some aspect of Soviet Science, is willing to learn Russian, and is prepared to face the difficulties as well as the varied delights of Soviet life. Copies of my report to the British Council containing some of the fruits of my two years' experience in the USSR will be available on request.

The very least that Western universities can do to encourage the use of these exchanges is to display the advertising matter relating to them; the relevant addresses in Britain are:—

British Council	The Royal Society
10 Spring Gardens	6 Carlton House Terr.
London SW1A 2BN	London SW1Y 5AG

M. REID

I.M.A. CONFERENCES

The Institute of Mathematics and its Applications announce three conferences. The first, on **The Mathematical Skills and Qualities Needed in Graduate Entrants to Industry and Commerce** will be held at the Natural History Museum, London SW7 on 3 May, 1977. The second, on **Mathematics in Oceanography** will be held at the

University of Bristol on 28–30 June, 1977. The third, on **Applications of Numerical Software—Needs and Availability**, will be held at the University of Sussex on 19–22 September, 1977. Further details can be obtained from the Secretary, IMA, Maitland House, Warrior Square, Southend on Sea, Essex SS1 2JY.

FUNCTIONAL ANALYSIS AND APPLICATIONS

To celebrate the 500th anniversary of the foundation of the University of Tübingen a symposium on Functional Analysis and its Applications will be held at the Mathematisches Institut der Universität, 74 Tübingen, Morgenstelle 10, Germany on 5–10 June, 1977. The following have accepted invitations to give one-hour

addresses: G. Birkhoff (Cambridge), S. D. Chatterji (Lausanne), R. K. Getoor (San Diego), L. A. Harris (Lexington), G. G. Lorentz (Austin), W. A. Luxemburg (Pasadena), L. Nachbin (Rio de Janeiro), J. Neveu (Paris), W. Orlicz (Poznań), A. Wilansky (Bethlehem), J. Wright (Reading).

LEEDS/SHEFFIELD ALGEBRA DAY

There will be a one-day Algebra conference in the University of Leeds on Tuesday, 28 June, 1977 at 10.00 am. The invited speakers are M. C. R. Butler (Liverpool), A. W. Goldie (Leeds) and

J. A. Green (Warwick). Further details can be obtained from R. Hart, School of Mathematics, University of Leeds, Leeds LS2 9JT.

LOGIC COLLOQUIUM

The European Summer meeting of the Association for Symbolic Logic will be a colloquium dedicated to the memory of A. Mostowski held on 1–12 August, 1977 in Wrocław, Poland. Three symposia are being planned, on model theory, set theory, and applications of logic to probability. There will also be two four-hour lecture courses on Silver machines and model theoretic algebra and a number of invited lectures on other branches of logic. Invited speakers include: R. M. Anderson, J. Baumgartner, W. Baur, A. Blass, L. Bukovsky, G. Cherlin, K. Devlin, J. Doner, U. Felgner, H. Gaifman, F.

Galvin, L. Harrington, P. Hajek, T. J. Jech, A. Kanamori, A. S. Kechris, D. W. Kueker, K. Kunen, M. Magidor, J. A. Makovsky, R. Mansfield, M. D. Morley, Y. N. Moschovakis, G. E. Reyes, M. Rubin, J. H. Schmerl, J. Sgro, S. Shelah, J. H. Silver, H. Simmons, S. G. Simpson, C. A. Smorynski, R. Solovay, J. Stern, G. Takeuti, A. Wilkie, G. Wilmers, M. Ziegler. Further details can be obtained from Logic Colloquium 77, Instytut Matematyczny, Uniwersytet Wrocławski, pl. Grunwaldzki, 2/4, 50–384 Wrocław, Poland.

EDINBURGH: RESEARCH FELLOWSHIP

Applications are invited for the William Gordon Seggie Brown Research Fellowship in Mathematics, tenable for the academic year 1977/78 in the University of Edinburgh. Stipend is in the Research Salary range 1A. Applications (before 7 May, 1977) 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.