

LMS NEWSLETTER

No. 46

February 1978

DATES OF SOCIETY MEETINGS

Friday, 17 March 1978, Burlington House.

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

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

Friday, 20 October 1978, Burlington House.

Friday, 17 November 1978, Burlington House, Annual General 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. Council will also meet on 12 May 1978.

D. B. SINGMASTER

KEEPING IN TOUCH WITH OUR SOVIET COLLEAGUES

Following publication of the letter by M. Reid (NEWSLETTER No. 39) information was received concerning the possibilities of exchanges between the Soviet Union and the United Kingdom. There is a large number of schemes available for assisting such exchanges but each has its own special features so the whole picture is a complex and daunting one which it is impossible to summarise. It seems that people are daunted by this situation and more applications for the available schemes would be welcome.

Anyone interested in organising an exchange should contact:—

The British Council
10, Spring Gardens
London SW1A 2BN

The Royal Society
6, Carlton House Terr.
London SW1Y 5AG

from whom details of appropriate schemes can be obtained.

B. E. JOHNSON

DUNDEE DIFFERENTIAL EQUATIONS CONFERENCE

A conference on ordinary and partial differential equations will be held at the University of Dundee on 29–31 March 1978. The special purpose of the conference will be to pay tribute to the late Professor A. Erdélyi. The following have accepted invitations to speak at the conference: F. V. Atkinson, B. L. J. Braaksma,

D. L. Colton, G. Fichera, A. Friedman, H.-W. Knobloch, J. Mawhin, E. Meister, R. E. O'Malley, B. D. Sleeman and J. Wimp. Further details can be obtained from the Organising Secretaries, Differential Equations 1978 Conference, Department of Mathematics, The University, Dundee.

COMPUTER CHESS CONFERENCE

A conference on new developments in computer chess organised by the Machine Intelligence Unit will be held in the University of Edinburgh on 10–11 April 1978. The conference will include an exhibition and demonstrations. Accommodation can be

arranged in Halls of Residence. Further details can be obtained from Mrs. P. Montgomery, Machine Intelligence Research Unit, 1 Hope Park Square, Edinburgh.

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>
Mathematical Education	13-14 April	Loughborough
Prediction of Performance of Sensible Heat Storage Units	June	To be announced
Markov Decision Processes	17-19 July	Manchester
Optimisation of Stochastic Systems	6-8 September	Oxford

HELSINKI SYMPOSIUM ON INTEGRAL EQUATIONS

This symposium will be held at the Helsinki University of Technology on 12-14 August 1978. It will deal with recent developments in the qualitative theory of Volterra equations. Invited speakers include V. Barbu, K. B. Hannsgen, J. J. Levin, R. C. MacCamy, R. K. Miller,

J. A. Nohel, G. R. Sell, G. F. Webb and R. L. Wheeler. Further details can be obtained from G. Gripenberg, Institute of Mathematics, Helsinki University of Technology, Otakaari 1, SF-02150 Espoo 15, Finland.

IRANIAN MATHEMATICS CONFERENCE

The Ninth Annual Iranian Mathematics Conference will be held at the University of Isfahan, Isfahan, Iran; on 28-31 March 1978. The following mathematicians are among the invited speakers attending this conference: G. R. Allan, B. Bojarski, G. Choquet, T. W. Gamelin, H. G. Garnir, K. W. Gruenberg, V. J. Lions, P. M. Neumann, L. Nirenberg, A. Pełczynski

and P. Young. A limited number of offers for accommodation in Iran will be available to those participants whose papers are approved by the organising committee of the conference.

Further information can be obtained from Organising Committee, Ninth Annual Iranian Mathematics Conference, University of Isfahan, P.O. Box 65, Isfahan, Iran.

LONDON MATHEMATICAL SOCIETY

DR. R. HAYDON

(Oxford)

NON-SEPARABLE BANACH SPACES

PROFESSOR J. MILNOR

(Princeton)

TITLE TO BE ANNOUNCED

FRIDAY, 17th March, 1978, at 3.30 p.m.

**Geological Society's Meeting Room,
Burlington House,
Piccadilly, London, W1V 0NL**

All interested are very welcome.

Tea will be served at 4.30 p.m.

NUMERICAL ANALYSIS OF SINGULAR PERTURBATIONS

A conference on the numerical analysis of singular perturbation problems will be held at the Institute of Mathematics of the Catholic University, Nijmegen, the Netherlands on 30 May to 2 June 1978. This will be the first conference in this new and developing area of numerical analysis and its main aim will be to discuss such problems from all current points of view. Invited speakers include: L. R. Abrahamsson (Uppsala), N. S. Bakhvalov (Moscow), E. Bohl (Münster), A. Brandt (Rehovot), K. V. Emelianov (Sverdlovsk), J. E. Flaherty (Troy, N.Y.), L. S. Frank (Nijme-

gen), D. F. Griffiths (Dundee), P. P. N. de Groen (Eindhoven), J. C. Heinrich (Swansea), A. M. Il'in (Ufa), H. O. Kreiss (Uppsala), J. Lorenz (Münster), W. L. Miranker (Yorktown Heights), A. R. Mitchell (Dundee), M. van Veldhuizen (Amsterdam) and O. C. Zienkiewicz (Swansea).

Contributed papers will also be accepted. Further details will be contained in the second notice which can be obtained from: The Conference Secretary, Institute of Mathematics, Toernooiveld, Nijmegen, The Netherlands.

MATHEMATICAL DEVELOPMENTS ARISING FROM HILBERT PROBLEMS

This book, a two volume set of 628 pages, is now available to L.M.S. members at a special price of \$10 for the two volumes in soft covers. It contains:

Hilbert's original article

Problems of present day mathematics *by F. E. Browder*

Hilbert's 1st problem: the continuum hypothesis *by D. A. Martin*

What have we learnt from Hilbert's 2nd problem? *by G. Kreisel*

Problem 4: Desarguesian spaces *by H. Busemann*

Hilbert's 5th problem and related problems on transformation groups *by C. T. Yang*

Hilbert's 6th problem: mathematical treatment of the axioms of physics *by A. S. Wightman*

Hilbert's 7th problem: on the Gel'fond-Baker method and its applications *by R. Tijdeman*

Hilbert's 8th problem: an analogue *by E. Bombieri*

An overview of Deligne's proof of the Riemann hypothesis for varieties over finite fields (Problem 8) *by N. M. Katz*

Problems concerning prime numbers (Problem 8) *by H. L. Montgomery*

Problem 9: the general reciprocity law *by J. Tate*

Hilbert's 10th problem. Diophantine equations: positive aspects of a negative solution *by M. Davis, Y. Matijasevic and J. Robinson*

Hilbert's 11th problem: the arithmetic theory of quadratic forms *by O. T. O'Meara*

Some contemporary problems with origins in the Jugendtraum (Problem 12) *by R. P. Langlands*

The 13th problem of Hilbert *by G. G. Lorentz*

Hilbert's 14th problem—the finite generation of subrings such as rings of invariants *by D. Mumford*

Problem 15: Rigorous foundation of Schubert's enumerative calculus *by S. L. Kleiman*

Hilbert's 17th problem and related problems on definite forms *by A. Pfister*

Hilbert's problem 18: on crystallographic groups, fundamental domains, and on sphere packing *by J. Milnor*

The solvability of boundary value problems (Problem 19) *by J. Serrin*

Variational problems and elliptic equations (Problem 20) *by E. Bombieri*

An overview of Deligne's work on Hilbert's 21st problem *by N. M. Katz*

On Hilbert's 22nd problem *by L. Bers*

Hilbert's 23rd problem: extensions of the calculus of variations *by G. Stampacchia*

Copies can be obtained from the American Mathematical Society, P.O. Box 1571, Annex Station, Providence, R.I. 02901, U.S.A.