LONDON MATHEMATICAL SOCIETY

PROFESSOR A. M. MACBEATH

(Birmingham)

EXOTIC 3 DIMENSIONAL CRYSTALLOGRAPHIES

PROFESSOR E. B. DYNKIN

(Cornell)

The 1979 Hardy Lecture

MARKOV PROCESSES AND RANDOM FIELDS

FRIDAY 15 JUNE 1979, at 3.30 p.m.

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

All interested are very welcome

Tea will be served at 4.30 p.m.

LMS NEWSLETTER

No. 60   *June 1979*

DATES OF SOCIETY MEETINGS

Friday, 15 June 1979, Burlington House. E. B. Dynkin (Hardy Lecturer) and A. M. Macbeath.

Friday, 12 October 1979, Burlington House.

Friday, 16 November 1979, Burlington House. Annual General Meeting.

Friday, 18 January 1980, Burlington House.

Friday, 21 March 1980, Burlington House.

Friday, 16 May 1980 (Country Meeting?).

Friday, 20 June 1980, Burlington House, Whitehead Lecture.

Council meetings will be held in conjunction with all these meetings except that on 18 May 1979. Council will meet on 11 May 1979.

Council meetings will be in Burlington House.

D. B. SINGMASTER

HARDY LECTURER 1979

The Society's Hardy Lecturer for 1979 is Professor E. B. Dynkin of Cornell University. He will be speaking as shown on the following schedule.

University/Society	Topic	Date	Time	Place (Local Organiser)
Sheffield	4	24 May	4.00	D59 Hicks Building (C. W. Anderson)
Hull	2	25 May	4.00	Department of Pure Mathematics (R. J. Elliott)
Liverpool	3	30 May	4.00	Mathematics Building (S. J. Taylor)
EMS (at St. Andrews)	5	2 June	4.30	Mathematical Institute (J. O'Connor)
Swansea	1	6 June	2.30	Department of Pure Mathematics (D. Williams)
University College, Cork	3	8 June	11.30?	Mathematics Department (R. Harte)
Cambridge	5	13 June	5.00	Room A, Arts School, Bene't Street (G. K. Eagleson)
LMS (Hardy Lecture)	*	15 June	5.00	Burlington House, Piccadilly, London (D. Singmaster)
Oxford	2	19 June	5.00?	Mathematical Institute (J. F. C. Kingman)
Imperial College, London	1	21 June	5.30	213 Huxley Building (G. E. H. Reuter)
RSS	3	22 June	5.00	Goldsmiths' Theatre, London School of Hygiene and Tropical Medicine, Keppel Street, London (A. P. Dawid, City University)

Topics

1. Statistical Physics and the Probabilistic Theory of Potential.
2. Ergodic Theory and Boundary Theory of Markov Processes.
3. An Application of Statistics to Mathematics: Sufficient Statistics and Extreme Points.
4. A Mathematical Model of Economic Equilibrium under Uncertainty.
5. Time-Reversibility of Stochastic Processes and Duality in Probability Theory and Analysis.
*. Markov Processes and Random Fields.

PERSONAL ITEMS

Professor I. G. Macdonald, Queen Mary College, London, was recently elected a Fellow of the Royal Society.

Two other mathematicians, were also elected Fellows of the Royal Society recently: E. M. L. Beale, Technical Director of Scicon Computer Services Ltd. and Visiting Professor at Imperial College, London and J. G. Thompson, Rouse Ball Professor at the University of Cambridge.

Professor O. Taussky, California Institute of Technology, has been awarded the Austrian Cross of Honour for Science and Art.

D. B. SINGMASTER

L.M.S. LOCAL REPRESENTATIVES

The following additions and amendments should be made to the list in the June 1978 *Newsletter*. Anyone wishing to represent an institution not represented is requested to write to me.

Calgary   Dr. H. K. Farahat

London:
Queen Elizabeth   Dr. A. R. Pears
Manitoba   Dr. G. Krause
Open University Professor D. A. Brannan
St. Andrews   Dr. C. M. Campbell
A. W. GOLDIE

VISITING MATHEMATICIANS

The following mathematicians are expected to visit Britain. The list does not include names on the list in the September and December *Newsletters*. A new list will appear in September and the editor will be grateful to anyone sending him information concerning mathematicians visiting this country during the academic year 1979–80.

Name	Home University	Visiting	Date of Visit
A. Brown	Australian National	Southampton	Jan.–Dec. 79
J. Eccleston	New South Wales	Kent	Dec.78–Dec. 79
G. I. Lehrer	Sydney	Warwick	Jan.–Dec. 79
N. A. Watson	Canterbury, New Zealand	Liverpool	Oct. 79–April 80

B. H. NEUMANN 70

A conference on mathematics will be held in Oxford on 13–14 October, 1979, to mark the 70th birthday of Professor B. H. Neumann, FRS, FAA. All pupils, their pupils, his colleagues, other associates and well-wishers past and present will be warmly welcomed. Please write to P. M. Neumann, The Queen's College, OXFORD, OX1 4AW, for further information and to announce your intention of coming.

CHRISTOFFEL SYMPOSIUM

An international symposium to celebrate the 150th anniversary of the birth of E. B. Christoffel will be held on 8–11 November 1979 at Aachen, Germany. Topics to be treated include differential geometry, complex functions, quadrature formulae, special functions and partial differential equations. Invited speakers include M. Brelot (Paris), Ph. J. Davis (Providence, RI), J. Ehlers (Munich), W. Klingenberg (Bonn), J. Meixner (Aachen), A. Moór (Sopron, Hungary), A. Pfluger (Zürich), Ch. Pommerenke (Berlin) and M. De Wilde (Liège).

Further information can be obtained from P. L. Butzer, Aachen University of Technology, 5100 Aachen, Germany.

ALGORITHMS AND COMBINATORICS

An International Seminar on Algorithms and Combinatorics will be held on 24–28 September 1979 at Sophia-Antipolis, France. The seminar proposes to present a unified view of the two fields of algorithms and combinatorics, the focus being on the geometry of permutations. Further information can be obtained from I.R.I.A. Public Relations Department, Domaine de Voluceau B.P.105, Rocquencourt-78150 Le Chesnay—France.

AUSTRALIAN SUMMER RESEARCH INSTITUTE

A Summer Research Institute organised by the Australian Mathematical Society will be held in Canberra A.C.T. on 14 January–9 February 1980. The topics and invited speakers are Week 1—*Operations Research:* R. B. Potts (Adelaide) and—*Mathematical Education.* Week 2—*Applied Mathematics:* M. van Dyke (Stanford) and *Combinatorial Theory* R. G. Stanton (Manitoba). Week 3—*Numerical Analysis* H. B. Keller (Caltech) and *Probability Theory* P. Whittle (Cambridge). Week 4—*Pure Mathematics* J. H. Coates (Paris-Sud) and *Statistics* W. J. Ewens (Monash). Further details can be obtained from J. Gani, Division of Mathematics and Statistics, PO Box 1965, Canberra City, Australia 2601.

NET THEORY OF PROCESSES AND SYSTEMS

An advanced course on General Net Theory of Processes and Systems will be held on 8–19 October 1979 at Hamburg, Germany. The course will be directed by W. Brauer (Hamburg), B. Randell (Newcastle upon Tyne) and C. A. Petri (Bonn). Lecturers include E. Best (Newcastle upon Tyne), H. J. Genrich (Bonn), M. Jantzen (Hamburg), K. Lautenbach (Bonn), J. D.

Noe (Washington), H. Oberquelle (Hamburg), S. S. Patil (Utah), G. Roucairol (Paris VI), R. M. Shapiro (Wellfleet) and K. Zuse (Hünfeld).

Further details can be obtained from W. Brauer, Fachbereich Informatik, Universität Hamburg, Schlüterstrasse 70, D-2000 Hamburg 13, Germany.

INTERNATIONAL CONGRESS ON MATHEMATICAL EDUCATION

The next Congress will take place in Berkeley, California, on 11–16 August 1980. The conference will consist of a small number of plenary sessions, mini-conferences, discussion panels, project displays and films. The teaching of mathematics in higher education will be part of the programme. H. O. Pollack (Bell Telephone) is chairman of the International Programme Committee, of which H. B. Griffiths (Southampton) is a member. The first

communication about detailed arrangements has been promised for this month or the next. I am chairman of a small 'ad hoc' working group set up by the Mathematical Education Committee of the Royal Society to coordinate UK contributions to the Congress, raise funds for travel to Berkeley and eventually to organise charter flights. Anyone requiring further information should write to me.

H. Halberstam

UNIVERSITY MATHEMATICS TEACHING CONFERENCE

A conference was held at the University of Nottingham on 19–22 December; it was attended by members of mathematics departments from 48 universities and polytechnics in the United Kingdom.

The greater part of the time was occupied by the discussion, in small working groups, of two main items: assessment and service teaching. The report of these discussions will be circulated to all universities and polytechnics later this year and additional copies will be available from H. Burkhardt, Shell Centre for Mathematical Education, University of Nottingham, Nottingham NG7 2RD.

The assessment groups took as their starting point the objectives of assessment, when it should occur and how it should be done, in undergraduate courses in mathematics. They compared the merits and drawbacks of methods of assessment now being used and examined their effectiveness.

Each Service Teaching group was invited to discuss the teaching of mathematics to students in engineering or physics or biology or economics. They were asked to consider the principles governing the design of mathematics service courses, the methods of teaching and appropriate methods of assessment. All but one group

took up the suggestion that they should devise, in detail, a first year mathematics course for students in their subject area. The other group—in engineering—became more concerned with the structure of service courses and who should actually do the teaching, the group decided that the teaching of mathematics should be left to members of the mathematics department but that there was a need to involve more closely both engineers and mathematicians in the design of the courses.

At plenary sessions talks were given by Professor Atiyah on the work of the Cockcroft Committee of Inquiry into the teaching of mathematics in schools and by Professor James Frauenthal on Mathematics in Society. The members of the Conference discussed the N and F proposals after introductory talks by J. Hersee and H. Niell; an overwhelming majority of them rejected the proposals. There was, however, considerable interest in the development of N-level programmes complementary to the existing A-levels.

The next Conference will take place at the University of Nottingham on 17–20 December 1979, under the chairmanship of G. Hall.

M. E. Rayner