LMS NEWSLETTER

No. 80 *June 1981*

DATES OF SOCIETY MEETINGS

Friday, 19 June 1981, Burlington House (E. Bombieri (Hardy lecturer) and J.-P. Serre).

Friday, 16 October 1981, Burlington House (P. Newstead and B. Eckmann).

Friday, 20 November 1981, Burlington House (A.G.M.; T. Brooke-Benjamin and J. B. Paris).

Friday, 15 January 1982, Burlington House.

Friday, 19 February 1982, Burlington House.

Friday, 19 March 1982, Burlington House.

Friday, 16 April–Saturday, 17 April 1982. Two-day meeting at Oxford.

Friday, 14 May–Saturday, 15 May 1982. Two-day meeting at Sheffield.

Friday, 21 May–Monday, 24 May 1982. Weekend meeting at Gregynog.

Friday, 18 June 1982, Burlington House.

The Oxford meeting in April 1982 is a special one, concerned with the development of algebra and number theory in the nineteenth and twentieth centuries. The Society's ordinary meeting in May is the two-day Sheffield meeting, while the Gregynog meeting is more specialized.

R. A. Bailey

COUNCIL NEWS

The LMS Council met on 20 March 1981, when the following matters were among those under consideration.

1. It was reported that the Privy Council had approved the recent amendments to the Statutes, and Council agreed to authorise the printing of a new booklet containing them.

2. There was much discussion concerning the future of the Joint Mathematical Council, following the withdrawal of the IMA and the Royal Society. It was agreed that the LMS should for the present remain a constituent society of the JMC, and should try to improve its usefulness.

3. A draft reciprocity agreement with the Nigerian Mathematical Society was approved.

4. Council recorded its thanks to Dr. D. B. Singmaster for his work in preparing the new Membership list, and set up a small working party to consider further improvements for future lists.

5. It was agreed that the *Proceedings* should in future be printed in Times type-face, rather than in Modern. This will standardize the type-face used in all the Society's periodicals, and will facilitate the transfer of papers from one to another. The content per page of the *Proceedings* will increase by about 20%, and the number of pages per volome will be unchanged.

6. Plans for future meetings, Instructional Conferences, and Durham Symposia were discussed.

7. Council instructed the President to cable the Soviet Delegation to the European Security Conference in Madrid, concerning LMS member Dr. Victor Brailovsky. The President sent the following telegram on 23 March: London Mathematical Society Council concerned with reported ill-treatment of member Victor Brailovsky by Soviet Authorities in contravention of Helsinki agreement. We request your reaffirmation of that agreement and assurance that Brailovsky's rights under it will be maintained.

N. L. Biggs

CHANGES OF ADDRESS

Members are asked to note that changes of address should be reported to the Society's Administrative Assistant (the undersigned), rather than to Officers of the Society or Editors of its publications. The address of the office is: Burlington House, Piccadilly, London W1V 0NL.

S. M. Oakes

HARDY LECTURER

The 1981 Hardy Lecturer is Professor E. Bombieri. His provisional schedule is shown below. Asterisks denote details which were not known at the time of going to press. Professor Bombieri will be spending a few days at most of the universities shown below. For further details of the visits and lectures contact the appropriate local organizer or Miss S. M. Oakes, London Mathematical Society, Burlington House, Piccadilly, London W1V 0NL, telephone 01–437 5377.

University /Society	Topic	Date	Time	Place (Local Organizer)
Oxford	4	* (2–4 June)		Mathematical Institute (B. J. Birch)
Cardiff	4	8 June	5.30 p.m.	* (C. Hooley)
Manchester	7	* (11–12 June)		* (D. Hacon)
Trinity College, Dublin	1	15 June	3.30 p.m.	Room E, Maths. (D. Simms)
LMS	1	19 June	5 p.m.	Burlington House (S. M. Oakes)
Imperial College, London	5	22 June	11. a.m.	Room 341, Huxley Bldg. (Mrs. B. Chambers)
Royal Holloway College, London	3	23 June	2 p.m.	Room E281, Main Bldg. (P. Rado)
Heriot-Watt	8	* (24–25 June)		* (J. Carr)
EMS	1	26 June	4.30 p.m.	Appleton Tower, University of Edinburgh (J. Martin)
Glasgow	7	29 June	3.30 p.m.	Mathematics Building (J. R. L. Webb)
Birmingham	7	* (2–3 July)		* (A. H. M. Hoare)
Cambridge	4	* (6–8 July)		* (J. W. S. Cassels)

The lecture topics are as follows:

1: Minimal Submanifolds and Variational Problems

2: Sieving with Weights

3: The Thue-Siegel Theorem Revisited

4: A Liouville Theorem on Curves

5: Linear Independence of Values of G-functions

6: The Radius of Convergence of Taylor Series Expansions of Solutions of Ordinary p-adic Differential Equations

7: Thompson's Automorphism and the Uniqueness of Ree Groups

8: The Gauss Map of a Classical Minimal Surface in $\mathbb{R}^3$.

R. A. BAILEY

PROGRAMME COMMITTEE

Programme Committee of the LMS meets twice a year, usually in February and September, to plan the programme of meetings and speakers. In order to obtain a well-balanced programme, the committee tries to plan about a year in advance. Thus in September 1981 the committee will be considering speakers for the October and November 1982 meetings.

Suggestions for speakers are always welcome, and should be sent to any member of the committee. Suggestions of overseas mathematicians who will be visiting Britain are particularly welcome. Such suggestions are most helpful if they can be made more than a year in advance, but obviously this is not always possible: suggestions for the nearer future are still valuable, mice and men being what they are.

At present the membership of the Programme Committee is as follows: the President, B. E. Johnson; the Meetings and Membership Secretary, R. A. Bailey; I. G. Macdonald; R. L. E. Schwarzenberger; J. T. Stuart.

R. A. BAILEY

PHILIP HALL'S 80th BIRTHDAY

The LMS plans to publish a book to celebrate the 80th birthday of Professor P. Hall, F.R.S., on 11 April 1984. Professor K. W. Gruenberg and Dr. J. E. Roseblade have been appointed editors.

Half the book (approximately 250 pages) will be devoted to research articles, and contributions for this are now invited. These will be carefully selected for quality and relevance. *Three* copies should be sent to one of the editors after 1 May 1982 and not later than 1 October 1982. The editors will decide in December 1982 which papers can be accepted.

Professor Gruenberg's address is Queen Mary College, Department of Pure Mathematics, London E1 4NS and Dr. Roseblade's is Jesus College, Cambridge CB5 8BL.

ROLLO DAVIDSON TRUST

The Trustees of the Rollo Davidson Trust announce that they have awarded a Rollo Davidson Prize for 1981 to John Charles Gittins, of the Mathematical Institute, University of Oxford, for his fundamental contributions to the theory of stochastic scheduling, and, in particular, for his effective solution of the classic "multi-armed bandit" problem.

This is the sixth year in which an award has been made by the Trust, which is supported by royalties associated with the two books, *Stochastic Analysis* and *Stochastic Geometry*, published as a memorial tribute to Rollo Davidson in 1973 and 1974, and by donations to the Trust.

RANDOM CZECHS

The Ninth Prague Conference on Information Theory, Statistical Decision Functions and Random Processes will be organized by the Institute of Information Theory and Automation of the Czechoslovak Academy of Sciences in Summer 1982, probably from 28 June to 2 July, in Prague.

The traditional subjects of the conference lectures and contributions concern the theoretical problems connected with the development and applications of subjects mentioned in the title of the Conference. The Transactions of the Conference are expected to be published after the Conference.

The registration fee will be about 900 Czechoslovak Crowns, that is, U.S.$90, including meals. The Conference will be held at the Prague University of Agriculture, where also the accommodation and board will be arranged.

If you are interested in further information about the Conference, please write as soon as possible, but not later than 15 June 1981 to: Ninth Prague Conference, UTIA CSAV, Pod vodarenskou vezi 4, 182 08 Praha 8, Czechoslovakia.

ROYAL IRISH ACADEMY

Professor A. G. O'Farrell (Maynooth) and Dr. T. J. Laffey (U.C.D.) have recently been elected members of the Royal Irish Academy.

JOURNALS FOR SALE

Gwen Mansfield, widow of D. E. Mansfield, has the following back numbers of journals for sale: Proceedings of the LMS (1967–1978), Journal of the LMS (1967–1975), Bulletin of the LMS (1969–1978), Journal of Applied Probability (1964–1970), Mathematical Gazette (1944–1978), Mathematics Teaching (Nos. 21, 29–45 incl.), Science News (Nos. 1–39, 44, 51–54 incl.).

Please send offers to: J. E. Baker, Faculty of Mathematics, The Open University, Milton Keynes MK7 6AA.

TRANSLATORS NEEDED

Are you interested in translating, editing, or proofreading specialized texts in mathematics? If so, and if you live within about 50 miles of Tonbridge, write to Mrs A. McMath, Trans-Inter-Scientia, PO Box 16, Tonbridge, Kent TN11 8DY. At the moment, the main requirement is for French and German texts to be translated into English and produced to camera-ready standard for publication, but other languages may be required in the future.

BOOKS RECEIVED FOR REVIEW IN THE *BULLETIN*

Complimentary copies of the books listed below have been received from their publishers by the Society. Those for which the *Bulletin* is unable to publish a review will be lodged in the Society's Library at University College, London, where they are available for inspection and use by members.

L. Nachbin: Introduction to Functional Analysis: Banach spaces and differential calculus, pp 184, S.Fr. 45 (Marcel Dekker).

C. P. Rees, S. M. Shah, C. V. Stanojevic: Theory and applications of Fourier analysis, pp 432, S.Fr. 84 (Marcel Dekker).

R. S. Westfall: Never at rest—A biography of Isaac Newton, pp 908, £25 (Cambridge University Press).

S. Nishisato: Analysis of categorical data: Dual scaling and its applications, pp 276, $25·00 (University of Toronto Press).

J. Cronin: Mathematics of cell electrophysiology, pp 144, S.Fr. 45 (Marcel Dekker).

L. Garrido: Systems far from equilibrium, pp 403, DM 47, U.S. $27·80 (Springer-Verlag).

W. Zawadski: Narrow gap semiconductors physics and applications, pp 572, DM 63, U.S. $37·20 (Springer-Verlag).

H. D. Sherali, C. M. Shetty: Optimization with disjunctive constraints, pp 156, DM 28, U.S. $16·50 (Springer-Verlag).

J. Walters: Stochastic dynamic properties of linear econometric models, pp 154, DM 28, U.S. $16·50 (Springer-Verlag).

K. Schittowski: Nonlinear programming codes, pp 242, DM 34, U.S. $20·00 (Springer-Verlag).

R. E. Burkard, U. Derigs: Assignment and matching problems: Solution methods with Fortran programs, pp 148, DM 28, U.S. $16·60 (Springer-Verlag).

B. Grigelionis: Stochastic differential systems: Filtering and control (Proceedings, USSR, 1978), pp 363, DM 41, U.S. $24·20 (Springer-Verlag).

W. E. Riddle, R. E. Farley: Software development tools, pp 280, DM 39·50, U.S. $23·30 (Springer-Verlag).

W. Parry: Topics in ergodic theory, pp 110, £10 (Cambridge University Press).

W. B. Jones, W. J. Thron: Continued fractions: Analytic theory and applications (Encyclopedia of Mathematics, Vol. 11), pp 428, £20·65 (Addison-Wesley).

L. Buxton: Do you panic about Maths?, pp 168, £3·95 p/b (Heinemann Educational Books Ltd.).

W. R. Derrick, S. I. Grossman: Elementary differential equations with applications (2nd ed.), pp 327, £11·40 (Addison-Wesley).

R. Bellman: Analytic number theory—An introduction, pp 195, £11·70 (Addison-Wesley).

B. Lewis: Diversions in Modern Mathematics, pp 135, £4·95 p/b (Heineman Educational Books Ltd.).

A. Bensoussan, J. L. Lions: Analysis and optimization of systems (Proceedings of the 4th Int. Conf. on Analysis and Optimization of Systems), Versailles, Dec. 1980, pp 999, DM 98, U.S. $57·90 (Springer-Verlag).

G. Orchez, M. Orchez: Plane algebraic curves, pp 240, S.Fr. 66 (Marcel Dekker).

K. Kappel, W. Schappacher: Abstract cauchy problems and functional differential equations, pp 238, £9·50 (Pitman Books).

K. G. Binmore: Foundations of analysis: A straightforward introduction; Book I Logic, sets and numbers, pp 131, £10 h/c, £4·95 p/b (Cambridge University Press).

R. Johnsonbaugh, W. E. Pfaffenberger: Foundations of mathematical analysis, pp 448, S.Fr. 55 (Marcel Dekker).

J. McConnell: Rotational Brownian motion and dielectric theory, pp 300, £23·40, U.S. $56·50 (Academic Press).

B. W. Conolly: Techniques in Operational Research, Vol. 2, Models, search and randomization, pp 338, £21·50 (John Wiley & Sons).

P. L. Garcia, A. Perez-Rendon, J. M. Souriau (eds): Differential geometrical methods in mathematical physics, pp 538, DM 53·50, U.S. $31·60 (Springer-Verlag).

J. Meixner, F. W. Schafke, G. Wolf: Mathieu functions and spheroidal functions and their mathematical foundations, pp 126, DM 18, U.S. $10·70 (Springer-Verlag).

D. Ferus, W. Kuhnel, U. Simon, B. Wegner (eds): Global differential geometry and global analysis, pp 299, DM 34·50, U.S. $20·40 (Springer-Verlag).

A. S. Kechris, D. A. Martin, Y. N. Meschovakis (eds): Cabal seminar 77–78, Proceedings, pp 274, DM 29, U.S. $15·30 (Springer-Verlag).

D. Henry: Geometric theory of semilinear parabolic equations, pp 348, DM 39, U.S. $20·50 (Springer-Verlag).
A. Dold, B. Eckman: Séminaire Bourbaki, pp 317, DM 34·50, U.S. $18·20 (Springer-Verlag).
J. F. C. Kingman: Mathematics of genetic diversity, pp 70 (SIAM).
P. J. Cameron, J. W. P. Hirschfeld, D. R. Hughes: Finite geometries and designs, Proceedings of the 2nd Isle of Thorns Conference, 1980, (LNS 49), pp 371, £15 (Cambridge University Press).
W. J. Evans, Mathematical Population Genetics, pp 325, DM 59, U.S. $33·10 (Springer-Verlag).
W. T. Reid: Sturmian theory for ordinary differential equations, pp 559, DM 54, U.S. $31·90 (Springer-Verlag).
I. Satake: Algebraic Structures of symmetric domains, pp 321, £22 (Princeton).
W. E. Boyce (editor): Case studies in mathematical modelling, pp 386, £22 (Pitman).
R. J. Alder: The geometry of random fields, pp 280, £17·50 (John Wiley & Sons).
G. R. Baldock & T. Bridgeman: The mathematical theory of wave motion, pp 261, £19·50 (John Wiley & Sons).
P. J. Davis, R. Hersh: The mathematical experience, pp 440, S.Fr. 52 (Birkhausser-Verlag).
A. Dick (translator): Emmy Noether 1882–1935, pp 193, S.Fr. 20 (Birkhausser-Verlag).
C. A. Rogers, *et al.*: Analytic sets, pp 498, £48, U.S. $110·50 (Academic Press).
H. B. Griffiths: Surfaces (2nd ed), pp 128, £12·50 h/b, £4·95 p/b (Cambridge University Press).
N. V. Krylov: Controlled diffusion processes (Appl. of Maths 14), pp 308, DM 79, U.S. $44·30 (Springer).
N. U. Prabhu: Stochastic Storage Processes (Appl. of Maths 15), pp 140, DM 38, U.S $22·50 (Springer).
J. Stillwell: Classical topology and combinatorial group theory (Grad. Texts in Maths 72), pp 301, DM 65, U.S. $38·40 (Springer).
T. W. Hungerford: Algebra (Grad. Texts in Maths 73), pp 502, DM 45, U.S. $26·60 (Springer).
G. Iooss & D. D. Joseph: Elementary stability and bifurcation theory (Und. Texts in Maths), pp 286, DM 42, U.S. $24·80 (Springer).
W. Rudin: Function theory in the unit Ball of $\mathbf{C}^n$ pp 436, DM 79·50, U.S. $46·90 (Springer).
R. E. Edwards: A formal background to mathematics: A critical approach to elementary analysis, 2a pp 606, 2b pp 563, DM 72, U.S. $42·50.
L. Szpiro: Lectures on equations defining space curves, pp 81, DM 18, U.S. $8·00 (Springer).
J. R. Leigh: Functional analysis and linear control theory, pp 160, £12·00 (Academic Press).
R. Hartley, L. C. Thomas & D. J. White: Recent developments in Markov decision processes, pp 334, £15·00 (Academic Press).
D. A. Brannan & J. G. Clunie: Aspects of Contemporary Complex Analysis, pp 572, £45·00 (Academic Press).
E. Muller-Pfeiffer: Spectral theory of ordinary differential operators, pp 246, £16·50 (John Wiley & Sons).
R. J. Serfling: Approximation theorems of mathematical statistics, pp 371, £18·70 (John Wiley & Sons).
A. H. Nayfeh: Introduction to perturbation techniques, pp 519, £16·50 (John Wiley & Sons).
H. M. Mulder: The interval function of a graph, pp 191, Dfll. 24·15 (Mathematisch Centrum).
C. Plumpton, P. S. W. Macilwaine: New tertiary mathematics: Pure mathematics: The core, Vol. 1 Pt. 1, pp 401, £6·90; Basic applied mathematics, Vol. 1 Pt. 2, pp 229, £6·90; Further pure mathematics, Vol. 2 Pt. 1, pp 404, £6·90 (Pergamon).

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