# LMS NEWSLETTER

No. 91

July 1982

#### DATES OF SOCIETY MEETINGS

1982

Friday, 15 October 1982, Burlington House (B. Bollobás and J. F. C. Kingman). Eriday, 19 November 1982, Burlington

Friday, 19 November 1982, Burlington House (K. D. Elworthy and Presidential Address).

1983

Friday, 21 January, Burlington House.

Friday, 18 February, Burlington House. Friday, 18 March, Burlington House.

Friday, 20 May-Saturday, 21 May. Twoday meeting at Sussex (Differential Equations).

Friday, 17 June, Burlington House.

R. A. BAILEY

#### LMS 1982 PRIZES

The Senior Berwick Prize is awarded to Professor J. G. Thompson for his work in Group Theory.

The Senior Whitehead Prize is awarded to Professor E. C. Zeeman for his contributions to mathematics both by his personal work and by his leadership.

Junior Whitehead Prizes are awarded to Dr. J. M. Ball for his work in applied analysis and to Dr. M. J. Taylor for his work in algebraic number theory.

P. R. GOODEY

#### GRANTS FOR VISITORS AND CONFERENCES

The Society offers some limited support to UK institutions that wish to invite overseas visitors who are not addressing the Society. The visitor should be speaking at a meeting which is at least regional in scope, or at two or three separate institutions. The support is normally limited to the return air fare (at the cheapest rate) between the visitor's home and London.

The Society also gives grants to support conferences. These grants are normally subject to the following conditions:

(i) The conference should be advertised in the Society's *Newsletter*, and open to members of the Society. (ii) After the conference, a report (normally quite brief) of the proceedings should be sent to the Society, including a statement of accounts. (iii) Any surplus shall be refunded to the Society. (iv) If a volume of conference proceedings is envisaged, the Society should have first refusal of the publication, negotiations to take place in the first instance with the Publications Officer. (v) The Society will pay for transatlantic transport only at the reduced (APEX) rate.

Enquiries about either scheme and applications for support should be addressed to the President, Professor B. E. Johnson, School of Mathematics, The University, Newcastle-upon-Tyne, NE1 7RU. Applications for conference support should include the following:

1. Subject of conference, dates, location, speakers (indicate those who have provisionally accepted invitations), expected attendance. 2. Planned budget in some detail including income from registration fee, and details of other grants applied for, cost of accommodation and lecture facilities if not provided free of charge, expected cost of speakers. The budget should show how you plan to spend the money you receive and who you expect to get it from. 3. If you plan to publish the proceedings of your conference, the royalties will usually be assigned to the LMS. Our grant will take this into consideration, but you must give details so we can estimate the likely income. If you accept a grant made under these terms, you are committed to producing an acceptable volume. Do not expect our grant to be equal to the likely royalties as we try to make a profit where we can in order to provide money for conferences which do not produce proceedings.

Applications are usually considered by Programme Committee in February and September. However, applications may be dealt with at any time if the intended visit or conference is sufficiently soon.

R. A. BAILEY

#### NIGERIAN MATHEMATICAL SOCIETY

Members of the LMS may become reciprocity members of the NMS. The reciprocity membership fee is £4. Application forms for reciprocity members may be obtained from R. A. Bailey, Statistics Department, Rothamsted Experimental Station, Harpenden, Herts. AL5 2JQ.

#### COUNCIL NEWS

The LMS Council met on 7 May 1982 when the following matters were among those under consideration.

1. The report of the 1982 Prizes Committee was received and approved. (The names of the prize winners are given in a separate article.)

2. The Cockcroft Report was discussed, and it was agreed that a discussion paper from the Education Committee should be amended slightly.

3. Council noted the success of the twoday meeting in Oxford in April, and agreed that the Secretary should write thanking Dr. P. M. Neumann for his efforts.

4. It was reported that the Transactions

#### **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 wellbalanced programme, the committee tries to plan about a year in advance. Thus in September 1982 the committee will be considering speakers for the October and November 1983 meetings.

Suggestions for speakers, particularly overseas Mathematicians who will be visiting Britain, are always welcome. Such suggestions are most helpful if they can be made more than a year in advance, but obviously this is not always possible, and suggestions for the nearer future are still valuable.

In addition to speakers living in or visiting this country, each year the Society invites a few distinguished speakers from overseas. We hope that each such visitor will stay for a short period, say 7 to 10 days, and visit

The British Society for the History of Mathematics announces two meetings in the summer of 1982.

On Saturday, 26 June at the London Science Centre, 18 Adam Street, London WC2, beginning at 2 p.m., there will be two talks: *The Pioneering Women Mathematicians* by Dr. G. Tee (University of Auckland); and *Sonya Kovalevskaya and Partial Differential Equations* by Dr. Roger Cooke (University of Vermont).

From 10-12 September there will be a

of the Moscow Mathematical Society had made a profit, in which the Society had a share.

5. It was agreed that Volume 15 of the *Bulletin* should comprise four issues of 96 pages and two of 112 pages, a slight increase in line with long-term policy. 6. Council noted that SERC grants had

6. Council noted that SERC grants had been awarded to three Durham symposia planned for 1983. They are: Modular Forms of One and Several Variables (R. A. Rankin); Universal Enveloping Algebras (A. W. Goldie and J. C. McConnell); Potential Theory (D. A. Brannan, J. G. Clunie and W. K. Hayman).

N. L. BIGGS

two or three institutions in the UK in addition to speaking to the Society. The Society pays for overseas travel arrangements and London accommodation, so the cost to institutions need cover only return travel from London and local accommodation. Where possible, the dates and times of all the visitor's lectures are advertised by the LMS.

Suggestions for speakers, whether local, visiting or overseas, should be sent to R. A. Bailey, Statistics Department, Rothamsted Experimental Station, Harpenden, Hertfordshire AL5 2JQ. For overseas speakers, please indicate whether your department would wish to invite them to visit under the above scheme. If there are too many suggestions of this sort, some preference will be given to small departments (i.e. those which normally have few overseas visitors). R. A. BAILEY

#### **HISTORY OF MATHEMATICS**

week-end meeting at Gonville and Caius College, Cambridge. The speakers will include: Dr. S. Russ (Bolzano), Dr. G. Tee (Babbage), Dr. P. Bursill-Hall (Calculus teaching in 18th C. France), Leo Rogers (Mathematics in Education 1780–1850), Dr. M. Price (Mathematics in Education, late nineteenth and early twentieth century). Further details are available from Dr. A. J. Crilly, Middlesex Polytechnic, Queensway, Enfield, Middlesex EN3 4SF, tel. 01–804– 8131,

#### LIMERICK MATHEMATICS 1982

A two-day Algebra Conference will be held at Mary Immaculate College, Limerick, Ireland, on Friday and Saturday, 12 and 13 November 1982. Guest speakers include Professor J. G. Thompson (Cambridge), Professor T. J. Laffey (Dublin), Professor M. L. Newell (Galway) and Dr. P. D. MacHale (Cork). Short talk contributions are invited. Contact: Dr. G. M. Enright, Mathematics Department, Mary Immaculate College, Limerick, Ireland.

### THE PROSPECTS FOR ICM-83

The Polish organising committee has announced that the dates for the postponed ICM-82 will be 16–24 August 1983.

In its letter announcing the postponement, the Executive Committee of the IMU referred to the "scientific prospects" for a congress as the reason for the decision. It also stated that the decision in November 1982 as to the reconfirmation or cancellation of the congress will be taken in the light of the "scientific outlook". There has been no clarification of these terms. At the request of the LMS Council, the Editor has prepared the following assessment of the situation.

At a mundane level, the likelihood of a good attendance at the congress is clearly an important point. It is essential that mathematicians from many parts of the world should be willing to participate, and that the majority of the invited speakers should signify their willingness to attend.

At a different level, there are certain general conditions necessary for the holding of a scientific congress. The International Council for Scientific Unions (of which the IMU is a member) has some guidelines on this matter. One of the rules states that all participants must be able to obtain travel visas from the host country without discrimination. Another one relates to the free circulation of people attending the congress. According to a statement by G. D. Mostow, Chairman of the US National Committee for Mathematics, in the *Notices* of the American Mathematical Society (April 1982, p. 245), the President

of the IMU has asked for several assurances from the Polish government. Among them are (in Mostow's words):

- (1) the free circulation of mathematicians seeking to attend the congress,
- (2) the release from jail of the mathematicians under arrest,
- (3) the lifting of the 11 p.m. to 5 a.m. curfew.

There is some confusion surrounding the second point. In the eyes of the Polish authorities there is a distinction between those who have been interned and those who have been arrested and charged with an offence. It is unlikely that the authorities will see any connection between the release of those in the second category and the scientific prospects for the ICM.

At least two of the seven mathematicians listed in the June *Newsletter* as having been detained were released at the beginning of May. They are Ryszard Rubinstein and Marian Srebrny. Some of the others have not been released, and the position of some is still in doubt.

At the present time (1 June) the position regarding travel visas for British mathematicians wishing to visit Poland is difficult but not impossible. Some visits have already taken place. However, an awkward situation is developing which may affect the travel prospects for US mathematicians. This is a result of the circumstances surrounding the expulsion of the US Scientific Attaché to Poland on 14 May, details of which may be found in the *New Scientist* dated 20 May.

N. L. BIGGS

### BRITISH COMBINATORIAL CONFERENCE 1983

The ninth British Combinatorial Conference will be held at the University of Southampton, 11–15 July 1983. The following have accepted invitations to speak: J. C. Bermond (Orsay), J. M. Hammersley (Oxford), J. W. P. Hirschfeld (Sussex), C. C. Lindner (Auburn), A. Schrijver (Amsterdam), J. Sheehan (Aberdeen), E. E. Shult (Kansas), V. T. Sós (Budapest), R. P. Stanley (MIT). Further details may be obtained from the local organiser: Dr. E. K. Lloyd, Faculty of Mathematical Studies, The University, Southampton SO9 5NH.

#### FOR SALE

Two metal card cabinets, each holding 15 trays of  $5'' \times 8''$  cards (65 cards per tray). Size of each cabinet  $12'' \times 25'' \times 22''$  high. Also available a stand for the two cabinets. For further information contact Susan Oakes, London Mathematical Society, tel.: 01–473 5377.

#### EVERETT PITCHER LECTURE SERIES

Lehigh University has recently received a gift establishing a fund, the Everett Pitcher Lecture Series Fund; the income from the Fund will be used to bring distinguished mathematicians to Lehigh's Bethlehem, Pennsylvania campus for the purpose of delivering expository lectures designed to interest the best senior mathematics majors and graduate students.

The donor's intention is that the lectures be open to the public and that publication of the lectures be sought.

The gift is in honour of Everett Pitcher who served in the Mathematics Department at Lehigh from 1938 to 1978, retiring as Distinguished Professor of Mathematics.

#### 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.

- **R. Brown, T. L. Thickstun** (eds): Low-dimensional topology—Vol. 1, Proceedings of the conference on topology in low dimension, Bangor, 1979, £13 (LMS Lecture Note Series 48) (Cambridge University Press).
- G. F. Roach: Green's function, pp 325, £20/£7.95 (2nd edition) (Cambridge University Press).
- P. Schenzel: Dualisierende komplexe in der lokalen algebra und buchsbaum-ringe, pp 161, DM 21.50, \$9.60 (Lecture Notes in Mathematics, 907) (Springer-Verlag).
- O. G. Jorshoe, L. Mejlbro: The Carleson-Hunt theorem on Fourier series, pp 123, DM 18, US \$8.40 (Lecture Notes in Mathematics, 911) (Springer-Verlag).
- G. A. Watson (ed.): Numerical analysis, Proceedings, Dundee 1981, pp 245, DM 29, US \$12.90 (Lecture Notes in Mathematics, 912) (Springer-Verlag).
- O. Tammi: Extremum problems for bounded univalent functions II, pp 168, DM 21.50, US \$9.60 (Lecture Notes in Mathematics, 913) (Springer-Verlag).
- M. L. Warshauer: The Witt group of degree k maps and asymmetric inner product spaces, pp 269, DM 29, US \$13.50 (Lectures Notes in Mathematics, 914) (Springer-Verlag).
- **B.** Banaschewski (ed.): Categorical aspects of topology and analysis, Proceedings, Ottawa 1981, pp 385, DM 39, US \$17.40 (Lecture Notes in Mathematics, 915) (Springer-Verlag).
- L. H. Clarke: Pure mathematics at advanced level, pp 477, £4.95 (3rd edition) (Heinemann Educational Books Ltd).
- **D. J. S. Robinson:** A course in the theory of groups, pp 481, DM 98, US \$43.60 (Graduate Texts in Mathematics, 80) (Springer-Verlag).
- B. Huppert, N. Blackburn: Finite groups II, pp 531, DM 138, US \$64.30 (A series of comprehensive studies in mathematics, 242) (Springer-Verlag).
- A. R. Magid: Module categories of analytic groups, pp 134, £15.00 (Cambridge Tracts in Mathematics, 81) (Cambridge University Press).
- I. Rival (ed.): Ordered sets—Proceedings of the NATO Advanced Institute, Banff, Canada, August 1981, pp 968, DFI 245, US \$99 (C. Mathematical & Physical Sciences 83) (D. Reidel Publishing Co., Holland).
- M. A. A. Dempster, J. K. Lenstra, A. H. G. Rinnooy Kan (eds): Deterministic and stochastic scheduling—Proceedings of the NATO Advanced Study and Research Institute of Theoretical Approaches to Scheduling Problems, Durham, July 1981, pp 410, DFI 110, US \$48 (C. Mathematical & Physical Sciences 84 (D. Reidel Publishing Co., Holland).

A. Svec: Global differential geometry of surfaces, pp 154, DFl 65, US \$28.50 (D. Reidel Publishing Co., Holland).

- G. E. Martin: The foundations of geometry and the non-euclidian plane, pp 509, DM 58, US \$25.80 (Springer-Verlag).
- J. Leray: Lagrangian analysis and quantum mechanics, pp 271, £24.50 (MIT Press, London).
- D. C. Kay, M. Breen (eds): Convexity and related combinatorial geometry, pp 256, SFr 89 (Lecture Notes in Pure & Applied Mathematics, 76) (Marcel Dekker Inc., New York).

A. Schinzel: Selected topics on polynomials, pp 250, \$9.95 (Univ. of Michigan Press).

- M. M. Zuckerman: Intermediate algebra—A straightforward approach, 2nd edition, pp 450, £14 (John Wiley).
- E. R. Berlekamp *et al.*: Winning Ways, Vol. 1 Games in general, pp 430, £10.80, \$22.50, Vol. 2 Games in particular, pp 420, £10.80, \$22.50 (Academic Press).

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# LONDON MATHEMATICAL SOCIETY

### DR. B. BOLLOBÁS (Cambridge) SORTING PROBLEMS AND RANDOM GRAPHS

PROFESSOR J. F. C. KINGMAN, FRS (S.E.R.C.) DISCIPLINE IN QUEUES

FRIDAY, 15th October, 1982, at 3.30 p.m.

Geological Society's Meeting Room, Burlington House, Piccadilly, London W1

All interested are very welcome Tea will be served at 4.30 p.m.