

LMS NEWSLETTER

No. 76

February 1981

DATES OF SOCIETY MEETINGS

Friday, 20 February 1981, Burlington House (D. B. A. Epstein and W. P. Thurston).

Friday, 20 March 1981, Burlington House (H. C. Longuet-Higgins and K. W. Morton).

Friday, 15 May–Saturday, 16 May 1981.

Two-day meeting at Leeds.

Friday, 19 June 1981, Burlington House.

Friday, 16 October 1981, Burlington House.

Friday, 20 November 1981, Burlington House (A.G.M.).

R. A. BAILEY

VISIT OF W. P. THURSTON

Professor W. P. Thurston (University of Colorado, Boulder) will be visiting this country to address the Society's Ordinary Meeting on 20 February. During his visit he plans to give talks at Oxford (Monday, 16 February), Warwick (Tuesday and

Wednesday, 17 and 18 February), and Cambridge (DPMMS, 2.30 p.m., Thursday, 19 February). Further details can be obtained from I. M. James (Oxford) D. B. A. Epstein (Warwick), and W. B. R. Lickorish (Cambridge).

R. A. BAILEY

NOTE FROM THE MEETINGS AND MEMBERSHIP SECRETARY

It would help me a great deal if members could, when proposing or seconding an applicant for membership of the L.M.S., add their names in BLOCK CAPITALS after their signatures. Unfortunately, a few

bogus applications have to be weeded from the genuine ones, and I can do this more easily if I can readily check the membership of the proposer and seconder.

R. A. BAILEY

DIRECTORY OF U.K. MATHEMATICS DEPARTMENTS

A booklet is being produced giving address, phone number and an up-to-date list of members for each of the university mathematics departments in the U.K. (both pure and applied). Copies are available from me, at the Mathematical Institute,

24-29 St. Giles, Oxford, at the price of 50p per copy, including postage. Please make cheques etc. payable to the undersigned. This is an unofficial trial run and I would be most grateful for corrections and comments.

I. M. JAMES

MEMBERSHIP STATISTICS

The 1976 Membership List included 1,265 members (919 ordinary and 346 reciprocity), 27 Honorary Members and 38 Corporate Members, including elections up to Summer 1976. Since that time, up to Summer 1980, we have elected 516 members (420 ordinary and 96 reciprocity), 3 Honorary Members and 18 Corporate Members. Thirteen former members rejoined the Society. The special reciprocity agreement with the Royal Statistical Society was terminated and three of these RSS members have transferred to ordinary L.M.S. membership. One Corporate Member had been elected but had not taken up membership by the time of the 1976 List—it has now done so. Eight Corporate Representatives have been

included in this List. We are aware of the deaths of 33 members and 5 Honorary Members. There have been 320 resignations and deletions, of which 215 were from pre-1976 members and 105 from those elected since the last List. Twelve recently elected members have not yet subscribed and are not listed. One of the recent Honorary members was previously an ordinary member. This present List thus contains 1,439 members (1,088 ordinary and 351 reciprocity), 25 Honorary Members and 57 Corporate Members.

The current membership includes 39 Life Members.

I have looked back through records and Lists and compiled the following table of numbers of members.

Year	Total	Ord	Recip	Honorary	Corporate
1980	1439	1088	351	25	57
1978	1332			24	41
1976	1265	919	346	27	38
1975	1255	877	378		
1974	1263			24	
1973	1168	797	371		28
1972	1057			22	38
1971	1067				39
1970	1028			20	39
1969	988				40
1968	937			21	39
1967	898				42
1966	858			15	39
1965	828				39
1961	682			14	23
1960	672				20

D. SINGMASTER

DEDEKIND—TAGUNG

An International Conference (Algebra and Number Theory) on the occasion of the 150th anniversary of the birth of Richard Dedekind will be held in Braunschweig, West Germany, on 6-8 October 1981. Invited speakers are P. M. Cohn,

M. A. Knus, H. Mehrstens, A. Pfister, D. Puppe, H. M. Stark. Further details can be obtained from Heiko Harborth, Technische Universität, D-3300 Braunschweig, West Germany.

READING COMBINATORICS COLLOQUIUM

A One-day Combinatorics Colloquium will be held at Reading University, 10 a.m.—6 p.m., on Wednesday, 13 May 1981. Fur-

ther information may be obtained from D. E. Daykin, Department of Mathematics, University of Reading, Reading RG6 2AX.

6th INTERNATIONAL CONFERENCE ON MATHEMATICAL PHYSICS

The 6th International Conference on Mathematical Physics will take place in Berlin (West) on the premises of the Free University of Berlin from 11 August through 21 August 1981 (or possibly for a shorter period within this time).

This conference continues the tradition of conferences on Mathematical Physics in the series 1972 (Moscow), 1974 (Warsaw), 1975 (Kyoto), 1977 (Rome), 1979 (Lausanne).

All conferences of the International Association of Mathematical Physics (IAMP) have been sponsored by the International Mathematical Union (IMU) which will probably sponsor the Berlin Conference as well. Other sponsors are the Governing Mayor of the City of Berlin (West), the International Union of Pure and Applied Physics (IUPAP) and the Free University of Berlin.

The responsibility for the scientific organisation of the conference lies with the

international Conference Committee composed of H. Araki (Chairman, Kyoto), J. Ehlers (Munich), L. Faddeev (Leningrad), E. Lieb (Princeton), R. Schrader (Berlin (West)), R. Seiler (Executive Secretary, Berlin (West)), D. Uhlenbrock (Berlin (West)).

The aim of the conference is not only to communicate recent results in many fields of mathematical physics but, predominantly, to provide a stimulating platform for contacts between mathematicians and physicists and among fields of different specialisation in order to spur co-operations. In view of this aim particular emphasis is put on review talks which will be kept, by tradition, as accessible as possible. Attendance of the conference is therefore also advisable for younger scientists.

Further information may be obtained from Dr. Armin D. Karpf, Institut für Theoretische Physik, Freie Universität Berlin, Arnimallee 3, D-1000 Berlin 33.

TENTH CONFERENCE ON STOCHASTIC PROCESSES

The Tenth Conference on Stochastic Processes and Their Applications will be held at the Université de Montréal (Montréal, Québec, Canada). The Conference is being organized under the auspices of the Committee on Stochastic Processes of the Bernoulli Society for Mathematical Statistics and Probability. The Conference will be sponsored by the Quebec Department of Education and the Université de Montréal.

The objective of the conferences on Stochastic Processes is to promote the understanding and use of probability theory and stochastic processes by bringing together researchers in both theory and applications. The areas of emphasis for this year are Markov and Gaussian processes, martingales, stochastic calculus, infinite-particle systems and applications, queuing theory, stochastic geometry, stochastic control theory and optimal strategies.

The scientific program will provide for sessions with a limited number of contributed papers in addition to surveys,

reviews, and research papers by invited speakers. The following is a tentative list of invited speakers:

J. D. Biggins (England), J. M. Bismut (France), D. R. Brillinger (U.S.A.), M. Csörgő (Canada), R. Dudley (U.S.A.), A. Dvoretzky (Israel), K. Fleischmann (G.D.R.), L. Gray (U.S.A.), T. Hida (Japan), A. Hordyk (Netherlands), M. Kac (U.S.A.), T. Kurtz (U.S.A.), R. Miles (Australia), G. Papanicolaou (U.S.A.), G. Pisier (France), P. Revesz (Hungary), K. Sato (Japan), F. Spitzer (U.S.A.), R. Subramanian (India), W. Whitt (U.S.A.).

The Conference will last from Monday morning, 24 August 1981 until Friday afternoon, 28 August 1981. Registration will start Sunday afternoon, 23 August. Further details may be obtained by writing to: Tenth Conference on Stochastic Processes, Centre de recherche de mathématiques appliquées, Université de Montréal, Case postale 6128, succursale A, Montréal (Québec), H3C 3J7 Canada.

COMBINATORIAL MATHEMATICS—AUSTRALASIA

The Ninth Australian Conference on Combinatorial Mathematics will be held at the University of Queensland, Brisbane, Queensland, 23–28 August 1981. All interested persons are cordially invited to attend. Contributed papers are welcome in all areas of combinatorics, pure and applied. Invited speakers are being arranged. One or two series of instructional lectures are being planned. Accommodation on campus will be available. The third annual general meeting of the Combinatorial Mathematics Society of Australasia will be held at the Conference.

Those who are not members of C.M.S.A. but are interested in attending the Conference, please write to: Dr. S. Williams, Director C.M.S.A., Department of Mathematics, University of Queensland, St. Lucia, Queensland 4067, Australia.

The Combinatorial Mathematics Society of Australasia was formed in 1978 to promote combinatorial mathematics: the investigation, construction, enumeration, and application of discrete configurations. It disseminates information about combinatorics and combinatoricists through its newsletter *Combinatorics*, and conducts an annual conference, the proceedings of which are published. There are currently 86 members from all over the world.

Any interested person is invited to join C.M.S.A. Annual subscription for 1981 is \$A4 for those in full-time employment and \$A2 otherwise. Members receive the newsletter and a reduction in the annual conference registration fee.

Please address all enquiries, giving your full name and address, to Dr. S. Williams at the above address.

HUNGARIAN RHAPSODY 1981

In addition to the Sixth Hungarian Colloquium on Combinatorics, details of which appeared in the January *Newsletter*, the following conferences will be held in Hungary this year:

1. Colloquium on number theory, 20-25 July, Budapest. President: G. Halász (Budapest).

2. International conference on "Semi-groups: Structure theory and universal

algebraic problems", 24-28 August, Szeged. President: O. Steinfeld (Budapest).

3. International colloquium on stochastic programming, 24-28 August, Koszeg. President: A. Prékopa (Budapest).

Further information is available from the Secretary of the Bolyai Mathematical Society, Budapest, Anker Köz 1-3, H-1061, Hungary.

VISITING FELLOWSHIPS

The Mathematics Committee of the Science Research Council has awarded grants to finance Visiting Fellowships as listed below.

<i>Investigator</i>	<i>Fellow</i>	<i>Topic</i>	<i>Dates</i>
P. Holgate (Bedford C.)	M. A. Stephens	Statistics	1.9.80 -31.8.81
C. Kearton (Durham)	J. S. Birman	Knot Theory	1.4.81 -30.8.81
W. K. Hayman (I.C.)	F. W. Gehring	Complex Analysis	1.1.81 -31.7.81
E. C. Lance (Leeds)	M. A. Rieffel	C*-Algebras	1.9.80 -31.8.81
M. J. Collins (Oxford)	J. L. Alperin	Representation Theory	15.3.81-14.7.81
M. J. Collins (Oxford)	P. Landrock	Representation Theory	1.4.81 -30.6.81
C. R. Leedham-Green (Q.M.C.)	J. J. Cannon	Computation /Groups	1.11.80-30.5.81
D. E. Daykin (Reading)	P. Frankl	Finite Sets	15.2.81-14.4.81

THE UNIVERSITY OF HULL

Applications are invited for the Chair of Mathematical Statistics tenable from a date to be arranged.

Salary not less than £14,275 plus U.S.S. benefits.

Applications (twelve copies) naming three referees should be sent by **28th February 1981** to the Registrar, The University of Hull, Hull HU6 7RX, from whom further particulars may be obtained.

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.

- K. Floret:** Weakly compact sets (LNM 801), pp 123, DM 18 (Springer).
- J. Bair & R. Fourneau:** Étude géométrique des espaces vectoriels II, Polyèdres et polytopes convexes (LNM 802), pp 283, DM 29 (Springer).
- É.-Y. Maeda:** Dirichlet integrals on harmonic spaces (LNM 803), pp 180, DM 21·50 (Springer).
- M. Matzuda:** First order algebraic differential equations (LNM 804), pp 111, DM 18 (Springer).
- R. Fletcher:** Practical methods of optimization, Vol 1, Unconstrained optimization, pp 120, £8·80 (John Wiley).
- R. G. Garside:** The architecture of digital computers, pp 265, £25 (£12·50 pb) (Oxford U.P.).
- J. Weidman:** Linear operators in Hilbert spaces, pp 402, DM 68; U.S. \$ 40·20, Springer Verlag.
- S. Lang:** Cyclotomic fields, II, pp 164, DM 39·50, U.S. \$23·40, (Springer Verlag).
- T. Hida:** Brownian motion, pp 325, DM 68, U.S. \$37·40 (Springer Verlag).
- M. Hestenes:** Conjugate direction methods in optimization, pp 325, DM 59·50, U.S. \$35·10 (Springer Verlag).
- R. L. Dobrushin & Ya. G. Sinai:** Multicomponent random systems, pp 624, S.Fr. 148 (Marcel Dekker).
- D. L. Cohn:** Measure theory, pp 373, S.Fr. 38 (Birkhäuser).
- I. Juhász:** Cardinal functions in topology—ten years later, pp 160, D.Fl. 20 (Mathematisch Centrum).
- R. K. Bullough & P. J. Caudrey (Eds.):** Solitons, pp 389, DK 76, U.S. \$44·90 (Springer).
- N. Rouche & J. Mawhin:** Ordinary differential equations, pp 260, £22 (Pitman).
- A. W. Chatters & C. R. Hajarnavis:** Rings with chain conditions, pp 197, £8 (Pitman).
- H. R. Lewis:** Unsolvable classes of quantificational formulas, pp 198, £8·10 (Addison Wesley).
- J. B. Fraleigh:** Calculus with analytic geometry, pp 866, £9·95 (Addison Wesley).
- O. Kowalski:** Generalized symmetric spaces, pp 187, DM 21·50, U.S. \$12·70 (Springer).
- J. L. Mennicke (Ed.):** Burnside groups, pp , DM 29, U.S. \$17·20 (Springer).
- F. Norguet:** Fonctions de plusieurs variables complexes, IV, pp 198, DM 25, U.S. \$14·80 (Springer).
- G. Maury & J. Raynaud:** Ordres maximaux au sens de K. Asano, pp 192, DM 21·50, U.S. \$12·70 (Springer).
- I. Gumowski & C. Mira:** Recurrences and discrete dynamic systems, pp 272, DM 29, U.S. \$17·20 (Springer).
- R. Martini (Ed.):** Geometrical approaches to differential equations, pp 339, DM 34·50, U.S. \$20·40 (Springer).
- D. Norman:** Recursion on the countable functionals, pp 191, DM 21·50, U.S. \$12·70 (Springer).
- S. Weisberg:** Applied linear regression, pp 283, £13·35 (Wiley).
- D. W. Kahn:** Introduction to global analysis, pp 336, \$34·50 (Academic Press).
- K. Jänich:** Topologie, pp 215, DM 22, U.S. \$13·00 (Springer).
- K. D. C. Stoodley, T. Lewis & C. L. S. Stainton:** Applied statistical techniques, pp 310, £16·50 (Ellis Horwood).
- H. Matsumura:** Commutative algebra, pp 312, £10·75 (Benjamin/Cummings).
- N. N. Bogoliubor & D. V. Shirkov:** Introduction to the theory of quantized fields, pp 620, £30 (Wiley).
- K. Leichtweiss:** Konvex mengen, pp 330, DM 54, U.S. \$31·90 (Springer).
- W. S. Massey:** Singular homology theory, pp 265, DM 49·50, U.S. \$29·20 (Springer).
- W. Schartau & H. Opalka:** Von Fermat bis Minkowski, pp 224, DM 32, U.S. \$18·90 (Springer).
- J. Keifer et al. (Eds.):** Jacob Wolfowitz: Selected papers, pp 642, DM 69, U.S. \$40·80 (Springer).
- J. Stoer & R. Bulirsch:** Introduction to numerical analysis, pp 609, DM 49·50, U.S. \$27·80 (Springer).

LONDON MATHEMATICAL SOCIETY

PROFESSOR H. C. LONGUET-HIGGINS (Sussex)

(1981 Naylor Prize winner)

THE MATHEMATICS OF PERCEPTION

PROFESSOR K. W. MORTON (Reading)

**OPTIMALITY PROPERTIES OF
FINITE ELEMENT APPROXIMATIONS TO
ELLIPTIC PROBLEMS**

FRIDAY, 20th March, 1981, 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.