

LMS NEWSLETTER

No. 84

December 1981

DATES OF SOCIETY MEETINGS

Friday 15 January 1982, Burlington House (N. L. Biggs and D. Williams).

Friday, 19 February 1982, Burlington House (J. T. Stafford and I. N. Herstein).

Friday, 19 March 1982, Burlington House (S. Sternberg and E. C. Zeeman).

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 (P. J. Cameron and R. Bieri).

Although the Society usually meets on the third Friday of the month, the ordinary meeting in May 1982 is that in Sheffield, as the Gregynog meeting is more specialized.

R. A. BAILEY

HARDY LECTURER

The Society is considering names for appointment of the 1983 Hardy Lecturer. The lectureship is awarded to a distinguished overseas mathematician who then visits Britain for about five weeks, visits a number of universities (usually eight to ten) and

addresses a meeting of the Society. The visits usually occur in May/June. Members are invited to suggest names and to state the case for selecting their suggestion in a letter to me.

B. E. JOHNSON

COUNCIL NEWS

The LMS Council met on 16 October 1981, when the following matters were among those under discussion.

1. It was reported that the British National Committee for Mathematics had met to discuss the funding of visitors to the ICM in 1982, and that another meeting was expected early in the New Year.

2. Council agreed to allocate £750 to the Education Committee for 1981–82. The Treasurer reported that the Conference and Programme Fund was in a healthy position.

3. It was agreed that the Society might in future pay an honorarium of about £100 to the editor of a volume of conference proceedings, in the case where the royalties accrue to the Society.

4. The following changes of personnel involved with periodicals were approved.

Dr. G. R. Allan is replaced by Dr. D. J. Collins as Editor of the *Proceedings*, Dr. N. H. Bingham joins the Publications Committee, and Dr. N. G. Lloyd replaces Prof. F. Bonsall on the Editorial Board. Council thanked Dr. Allan and Professor Bonsall for their services to the Society.

5. The suggestion that the Lecture Note Series be split into two categories, research and advanced exposition, was approved.

6. Council considered the problems currently being faced by mathematicians in Poland, and authorized a revision of the exchange arrangements for journals.

7. A preliminary report on the *Whither Mathematics?* document was discussed, and it was agreed that the report should be revised to a form suitable for general circulation.

N. L. BIGGS

NUMERICAL TREATMENT OF INTEGRAL EQUATIONS

The London Mathematical Society is sponsoring a Durham symposium and workshop on the *numerical treatment of integral equations* in the summer of 1982. It will be held at Grey College, Durham University, 19–29 July.

Participation is by invitation. The organizers wish particularly to ensure that those from academic and industrial life in

the UK with interests in this (and related) areas have an opportunity to participate.

Those interested in attending the meeting are asked to contact its convenor: Christopher T. H. Baker, Department of Mathematics, The University of Manchester, Oxford Road, Manchester M13 9PL, England.

1982 SOCIETY PRIZES

In summer 1982 the Council proposes to award a Senior Berwick Prize, a Senior Whitehead Prize and one or more Junior Whitehead Prizes. Accordingly it has appointed B. E. Johnson, I. G. Macdonald and J. F. Adams to the 1982 Prizes Committee. The Council invites members of the Society to submit their views confidentially in writing to any member of the Committee by 1 March 1982. Council reserves the right not to make an award if a candidate of sufficient merit is not recommended by the Prizes Committee.

The detailed regulations and procedure for the award of each Prize may be obtained from the undersigned. The principal points that members should note are:—

(1) the then President of the Society and members of the Prizes Committee are ineligible for any of the awards;

(2) no person may receive a given Prize more than once;

(3) only mathematicians who are members of the Society at the date of the award are eligible for the Senior Berwick Prize;

(4) the Senior Berwick Prize will be awarded in respect of a definite piece of work published by the Society in any of its publications (at present the three periodicals, the Monographs and the Lecture Notes Series) in the period 1 January 1978 until 31 December 1981;

(5) the Senior and Junior Whitehead Prizes are restricted to mathematicians normally resident in the United Kingdom of Great Britain and Northern Ireland. These awards are not restricted to mathematicians working in any specific field or area of mathematics;

(6) grounds for the award of the Senior and Junior Whitehead Prizes include work in and influence on mathematics. In the case of the Senior Whitehead Prize the candidates' service to mathematics and lecturing gifts will also be taken into account;

(7) candidates for the Junior Whitehead prize(s) must not be more than 40 years of age on 1 June 1982, and must not already be Fellows of the Royal Society.

P. R. GOODEY

SUBSCRIPTIONS—REMINDER

The Society is grateful to all those members who have paid their 1981–82 subscriptions so promptly—reminders cost time and money. Unfortunately, some members had not renewed their membership on 1 November 1981, and we cannot automatically send publications and/or *Newsletters* to members who have not paid by 1 January 1982. If you have misplaced your renewal of membership form, please contact the undersigned at the office in Burlington House, who will send you one immediately.

As far as the suggestion of payment by Direct Debit is concerned, at present the consensus is even, with 25% having not indicated either for or against. Would you please indicate one way or the other, so that a clear picture can be formed? If the Society does decide to proceed with Direct Debit, those members who do not wish to use the system will still be able to pay their annual subscription by cheque or Giro transfer.

S. M. OAKES

GLOBAL RIEMANNIAN GEOMETRY

A Durham Symposium on Global Riemannian Geometry will be held on 8–18 July 1982 in Grey College, Durham.

Attendance is primarily by invitation but interested mathematicians who have not

been invited and would like to attend should write either to Professor T. J. Willmore, Department of Mathematics, University of Durham, DH1 3LE, or to Dr. N. Hitchin, St. Catherine's College, Oxford.

A HUNDRED YEARS OF ALGEBRA

A meeting with this theme, sponsored by the LMS, will be held in Oxford on Friday and Saturday, 16–17 April 1982. The speakers and their topics will be:—

Professor René Taton (Paris), Évariste Galois et ses contemporains.

Professor H. M. Edwards (Columbia University, New York), Dedekind's invention of ideals.

Professor Thomas Hawkins (Boston

University), Wilhelm Killing and the structure of Lie algebras.

Professor W. Ledermann (Sussex), Issai Schur and his school in Berlin.

Professor B. L. van der Waerden (Zürich), The school of Hilbert and Emmy Noether.

Further details and an application form for accommodation will be circulated with the January *Newsletter*.

P. M. NEUMANN

HENRY GEORGE FORDER 1889-1981

Henry George Forder, Member of the LMS since 1921, died in Auckland, New Zealand on 21 September 1981.

He was born in Norfolk and was a Wrangler in 1910. After several appointments as a schoolmaster in England he went

to New Zealand and became Professor in Auckland in 1934. On his retirement in 1955 he was made an Emeritus Professor. He published several books on Geometry, in particular the well-known *Calculus of Extension*.

THE ROWLAND WILSON PRIZE

The Rowland Wilson Memorial Fund was launched in late 1980 to endow a post-graduate prize in Pure Mathematics at the University College of Swansea. A total of £1,600 has now been subscribed, and the College has established the Rowland Wilson Prize in Pure Mathematics, in the following terms:—

“This is a prize of £100, to be awarded by the Senate on the recommendation of the Head of the Department of Pure Mathematics, in any year in which sufficient merit is shown, to a graduate student who, within two years of registration as such, has completed a piece of work of exceptional merit which has subsequently been accepted for publica-

tion or for a Master's degree of the University of Wales.

“The prize was founded in memory of Rowland Wilson (1895–1980), who joined the staff of the College in 1921, was appointed Professor of Mathematics in 1941, and retired (as Professor of Pure Mathematics) in 1961. Funds for its endowment were contributed by members of his family and by former colleagues and students.”

The first award of the prize was made in July 1981 to G. C. Price B.Sc.(Sussex), M.Sc.(Wales), for a thesis on stochastic integration.

J. D. WESTON

1982 MATHEMATICAL WHO'S WHERE

This new publication lists the names, departmental addresses and telephone numbers of 2,000 mathematicians working at Universities and elsewhere in the United Kingdom and Eire. It replaces the Staff Directory published last year which was something of a trial run for the *Who's Where*. Not only has the information been brought up-to-date but numerous errors and omissions have been corrected. Various practical suggestions from users of the Staff Directory have been adopted, for example,

the names of Professors can immediately be identified. Mathematicians working outside Departments of Mathematics have also been included as far as possible.

Copies of the *Who's Where* (price £1 each or £5 for six) are available post free from I. M. James, Mathematical Institute, 24–29 St. Giles, Oxford. Cheques etc. should be made payable to I. M. James, not to the Mathematical Institute or Oxford University.

I. M. JAMES

STATISTICAL MECHANICS

The LMS has made a grant towards the cost of a one-day Conference on Statistical Mechanics, to be held at the Open University on 11 December 1981. Further details may be obtained from the Conference

Secretary, Mrs. F. Thomas, Mathematics Faculty, Open University, Milton Keynes MK7 6AA, telephone 0908-74066.

A. SOLOMON

MEETING OF MODEL THEORISTS

The fourth Meeting of Model Theorists will take place at Bedford College, London on 17–18 December 1981. Invited speakers include Haim Gaifman (Jerusalem), Laurence Kirby (Manchester), Daniel Lascar (Paris), Alex Wilkie (Oxford). The meeting

is supported by the London Mathematical Society and the British Logic Colloquium. For further details, including programme and residence, write to Dr. Wilfrid Hodges, Bedford College, Regent's Park, London NW1 4NS.

SERC MATHEMATICS COMMITTEE

The membership of the SERC Mathematics Committee for the 1981-82 session is listed below, with the dates of each member's appointment.

I. G. Macdonald (1979-82), Department of Pure Mathematics, Queen Mary College.

J. F. Adams (1979-82), Department of Pure Mathematics and Mathematical Statistics, University of Cambridge.

P. Amiry (1981-84).

B. J. Birch (1981-84), Mathematical Institute, Oxford.

F. F. Bonsall (1979-82), Department of Mathematics, University of Edinburgh.

W. D. Collins (1981-84), Department of Applied and Computational Mathematics, University of Sheffield.

V. R. Cane (1979-82).

P. R. Freeman (1980-83), Department of Mathematics, Leicester University.

D. Gelder (1981-84), Department of Applied Mathematics, Pilkington Brothers Ltd.

C. J. Isham (1981-84), Imperial College of Science and Technology.

N. Riley (1980-83), School of Mathematics and Physics, University of East Anglia.

S. J. Taylor (1980-83), Department of Pure Mathematics, Liverpool University.

J. R. Whiteman (1981-84), Institute of Computational Mathematics, Brunel University.

E. L. Albasiny (Assessor), National Physical Laboratory.

A. G. Game (Secretary), SERC.

PROFESSOR R. RADO

On 29 October 1981 the degree of *Doctor rerum naturalium (honoris causa)* was conferred upon Professor Richard Rado in the Free University of Berlin. The citation

referred to his outstanding scientific achievements in various branches of mathematics, especially combinatorics and set theory.

ERGODIC THEORY—REDUCED RATE

Ergodic Theory and Dynamical Systems is a new journal which started publication in 1981. It is published quarterly and the full subscription price for Volume 2 (1982) is £45. Members of the London Mathematical Society are entitled to a reduced rate subscription of £28.

Further information and sample copies are available from Journals Publicity, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.

BAIL II

The Second International Conference on "Boundary and Interior Layers—Computational and Asymptotic Methods" will take place from 16 to 18 June 1982 in Dublin, Ireland, under the auspices of the Numerical Analysis Group and co-sponsored by the American Institute of Aeronautics and Astronautics, American Meteorological Society, Institute for Numerical Computations and Analysis, and the Irish Mathematical Society. Contributed papers are solicited from biologists, chemists, engineers, mathematicians, physicists and other scientists on computational or asymptotic methods for problems involving boundary or interior layers.

Invited speakers include: A. Acrivos (Stanford); A. E. Berger (Silver Spring); A. Brandt (Rehovot); T. Cebeci (Long Beach); G. Chavent (Le Chesnay); A. J. Chorin (Berkeley); P. Concus (Berkeley); G. Dahlquist (Stockholm); J. Douglas Jr. (Chicago); C. W. Gear (Urbana); B. J.

Hoskins (Reading); F. J. Jacobs (Rijswijk); Feng Kang (Beijing); R. B. Kellogg (College Park); R. W. MacCormack (Moffett Field); M. Mimura (Hiroshima); C. S. Morawets (New York); K. W. Morton (Reading); W. D. Murphy (Thousand Oaks); R. E. O'Malley Jr. (Troy); F. Odeh (Yorktown Heights); S. J. Osher (Los Angeles); D. W. Peaceman (Houston); V. V. Pukhnachov (Novosibirsk); A. E. P. Veldman (Amsterdam); M. J. Werle (East Hartford); R. A. Willoughby (Yorktown Heights); N. N. Yanenko (Novosibirsk); R. Kh. Zeytounian (Lille).

In association with BAIL II an Introductory Short Course on Boundary and Interior Layers—Computational and Asymptotic Methods will be held on 14 and 15 June 1982. All correspondence concerning the Conference and/or Short Course should be addressed to BAIL Conference, 39 Trinity College, Dublin 2, Ireland.

VISITING MATHEMATICIANS

This is the second list for 1981-82, supplementing the one which appeared in the November *Newsletter*.

<i>Name</i>	<i>Home University</i>	<i>Visiting</i>	<i>Dates of Visit</i>
J. Clark	Otago	Aberdeen	Sept. 1981-
F. Bombal	Madrid	Aberdeen	June-Sept. 1982
L. A. Sanchez	New Mexico	Aberystwyth	Jan.-June 1982
M. Dyer	Oregon	Bangor	June-Aug. 1982
R. W. Cross	Cape Town	Birmingham	Dec. 1981-Jan. 1982
Z. B. Kang	Shanghai	Birmingham	Jan. 1982-Sept. 1983
A. A. Ridha	Algeria	Birmingham	Feb. 1982-Jan. 1983
M. Sakai	Kagoshima	Brunel	Aug. 1981-July 1982
R. K. Wright	Vermont	Brunel	July 1982-July 1983
B. D. Reddy	Cape Town	Brunel	Jan.-July 1982
I. Marek	Prague	Brunel	Jan.-March 1982
J. Steinberg	Haifa	Brunel	Sept. 1982-July 1983
L. M. Haines	Natal	Cambridge	Dec. 1981-Dec. 1982
S. Stidham	North Carolina	Cambridge	
R. Bumby	Rutgers	Cambridge	Oct. 1981-Sept. 1982
R. Carlson	Bethel	Cambridge	Oct. 1981-Sept. 1982
K. M. Chan	Singapore	Cambridge	Nov. 1981-April 1982
Chow Yoong-Ming	Singapore	Cambridge	Nov. 1981-April 1982
P. H. Chan	Taiwan	Cambridge	Oct. 1981-Sept. 1982
C. Charnes	Monash	Cambridge	Oct. 1981-Sept. 1982
J. L. Colliot-Thelene	Centre d'Orsay	Cambridge	Jan.-July 1982
Shou-Jen Hu	Hong Kong	Cambridge	Oct. 1981-Sept. 1982
J. McKay	Montreal	Cambridge	Oct. 1981-Sept. 1982
M. Nutt	Nova Scotia	Cambridge	Oct. 1981-Sept. 1982
P. Shanahan		Cambridge	Jan.-June 1982
R. L. Snider	Virginia	Cambridge	Oct. 1981-Sept. 1982
M. Yusuf	Pakistan	Cambridge	Oct.-Dec. 1981
J. L. Morris	Waterloo	Dundee	Oct. 1981-Sept. 1982
F. V. Atkinson	Toronto	Dundee	Feb.-July 1982
A. Zettl	Illinois	Dundee	April 1982
R. T. Lewis	Birmingham, USA	Dundee	April-June 1982
F. Neuman	Czechoslovakia	Dundee	March-June 1982
P. Borejko	Warsaw	E. Anglia	Oct.-Dec. 1981
A. Cornish	Newfoundland	E. Anglia	Oct. 1981-Aug. 1982
A. Sawicki	Gdansk	E. Anglia	Oct. 1981-Aug. 1982
M. David	Technion	City	Oct. 1981-Sept. 1982
F. Senis	Ankara	City	Oct. 1981-Sept. 1982
P. R. Heath	Newfoundland	Durham	Oct. 1981-Sept. 1982
L. Gheysens	Leuven	Durham	Oct. 1981-Sept. 1982
G. M. Southward	New Mexico	Edinburgh	Aug. 1981-Aug. 1982
G. O. Zerbe	Colorado	Edinburgh	Aug. 1981-Aug. 1982
H. Rajjavi	Dalhousie	Glasgow	May 1982
M. Gagliyan	Turkey	Glasgow	Oct. 1981-May 1982
S. E. Mohammad	Khartoum	Hull	Sept. 1981-Aug. 1982
E. de Doncker	Leuven	Kent	
A. Pinkus	Haifa	Lancaster	Oct. 1981-Oct. 1982
Y. L. Xin	China	Leeds	April-June 1982
F. J. Craveiro de Carvillio	Portugal	Leeds	March-Sept. 1982
C. Tricot	Geneva	Liverpool	Oct. 1980-Sept. 1982
G. C. Fletcher	Monash	Imperial	July-Dec. 1981
S. G. Steinemann	Lauzanne	Imperial	March-June 1982
M. David	Haifa	Imperial	Oct. 1981-Sept. 1982
V. Makhankov	USSR	Imperial	August 1982
R. E. Kelly	California	Imperial	12-30 Sept. 1982
P. J. Blennerhassett	New South Wales	Imperial	Jan.-June 1982
Chen Jia-shi	China	Imperial	Oct. 1981-Sept. 1982
Wang Fa-ming	China	Imperial	Oct. 1981-Sept. 1982

<i>Name</i>	<i>Home University</i>	<i>Visiting</i>	<i>Dates of Visit</i>
H. Zhou	China	Imperial	Until December 1981
S. I. Grossman	Montana	Imperial	Oct. 1981–Sept. 1982
A. Agresti	Florida	Imperial	Aug. 1981–Aug. 1982
M. Remon	Belgium	Imperial	Aug. 1981–July 1982
C. Brambilla	Rome	Imperial	Sept. 1981–Aug. 1982
B. Jørgensen	Odense	Imperial	Oct. 1981–Sept. 1982
E. Ponsot	Venezuela	Imperial	Oct. 1981–Sept. 1982
N. Sakic	Yugoslavia	Imperial	Nov. 1981–Jan. 1982
R. A. Kasumu	Lagos	Imperial	Jan. 1982–Aug. 1982
P. Embrechts	Leuven	Imperial	Feb.–Aug. 1982
M. Akahira	Tokyo	Imperial	June–Aug. 1982
E. Schmutzer	Jena	QEC	Oct. 1981
J. Callaway	Louisiana	RHC	Jan.–May 1982
D. A. Foulser	Chicago	Westfield	Jan.–June 1982
E. G. Ismiev	USSR	Westfield	Sept.–Dec. 1981
E. G. Ostrom	Washington	Westfield	May–June 1982
R. Quint	California	Westfield	Oct. 1981–Sept. 1982
A. L. Andrew	Melbourne	Manchester	Oct.–Dec. 1981
Wu S. Tsai	China	Manchester	April–Sept. 1982
J. H. Ewing	Indiana	Newcastle	Aug. 1981–Aug. 1982
K. Saito	Tohoku	Newcastle	Feb.–June 1982
D. Winch	Sydney	Newcastle	Oct. 1981–July 1982
Yu Kun-Rui	Peking	Nottingham	Oct. 1981–Dec. 1981
Yu Xiu-Yuan	Shandong	Nottingham	May–July 1982
J. H. H. Chalk	Toronto	Nottingham	Jan.–June 1982
G. Oster	Berkeley	Oxford	April–June 1982
L. A. Segel	Israel	Oxford	April–May 1982
B. Benjamin	S.A. Inst.	Oxford	May–Sept. 1982
R. Zahar	Montreal	Oxford	March–Aug. 1982
S. K. Berberian	Texas	Reading	Sept.–Dec. 1981
S. Osher	Los Angeles	Reading	March–May 1982
K. Saito	Tohoku	Reading	Sept. 1981–March 1982
T. Forbes	California	St. Andrews	1981–82
S. Ram	India	St. Andrews	1981–82
R. P. Sullivan	W. Australia	St. Andrews	Nov.–Dec. 1981
B. Aupetit	Laval	Stirling	March–June 1982
A. Viola-Prioli	Simon Bolivar	Edinburgh	July 1981–Aug. 1982
U. Celebi	Ankara	Edinburgh	July 1981–July 1982
J. H. Anderson	Pennsylvania	Edinburgh	Jan. 1982–June 1982
B. K. Øksendal	Kristiansand	Edinburgh	Jan.–June 1982
F. Levin	Bochum	Cardiff	Oct. 1981–March 1982
M. Wanas	Cairo	King's	Oct. 1981–Sept. 1982
W. L. Kennedy	Otago	King's	Oct. 1981–Dec. 1981
M. Zaimi	Tehran	King's	Oct. 1981–Sept. 1982
P. Zizi	Cern	King's	Jan. 1982–Jan. 1983
T. Berry	Simon Bolivar	King's	Jan. 1982–Jan. 1983
J. Dudziak	Indiana	Dublin	Oct. 1981–Sept. 1982
M. Klimek	Cracow	Dublin	Oct. 1981–Sept. 1982
S. Fatunla	Benin	Dublin	Oct. 1981–Sept. 1982
M. Auslander	Brandeis	Bedford	20–25 May 1982
E. Formanek	Pennsylvania	Bedford	Oct. 1981–June 1982
K. R. Ito	Kyoto	Bedford	Oct. 1980–July 1983
F. Galloni	Milan	Bedford	Nov.–Dec. 1981
A. Leroy	Mons	Bedford	Oct.–Dec. 1981
G. Reents	Würzburg	Bedford	March–April 1982
A. Sparzani	Milan	Bedford	Nov.–Dec. 1981
M. J. Westwater	Washington	Bedford	Jan.–March 1982
A. Kufner	Prague	Sussex	April–May 1982
N. Lacroix	Quebec	Sussex	Aug. 1981–June 1982
M. C. Tews	Worcester, Ma.	Sussex	Jan.–Aug. 1982
H. Triebel	Jena	Sussex	April–May 1982

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.

- C. F. Gardiner: *Modern algebra: A natural approach with applications*, pp 288, £12·50 (John Wiley) £5·90, \$14·95 p/b (Ellis Harwood).
- J. W. Brewer: *Power series over commutative rings*, pp 112, SFr 48 (Lecture Notes in Pure and Applied Mathematics, Vol. 64) (Marcel Dekker).
- J. Jimenez (ed.): *The role of coherent structures in modelling turbulence and mixing*, pp 393, US \$24·70 (Springer-Verlag).
- W. C. Reynolds, R. W. MacCormack: *Seventh International conference on numerical methods in fluid dynamics: Proceedings, Stanford 1980*, pp 485, DM 52, US \$24·80 (Springer-Verlag).
- P. Kramer, M. Saraceno: *Geometry of the time-dependent variational principle in quantum mechanics*, pp 98, DM 18, US \$8·60 (Springer-Verlag).
- H. D. Doebner: *Differential geometric methods in mathematical physics*, pp 329, DM 38, US \$18·10 (Springer-Verlag).
- B. D. Hassard, N. D. Kazarinoff, Y-H Wan: *Theory and application of Hopf bifurcation*, pp 311, £15 (Lecture Note Series, 41) (Cambridge University Press).
- K. J. Devlin: *Sets, functions and logic*, pp 90 (Chapman and Hall).
- G. B. Wetherill: *Intermediate statistical methods*, pp 390, £9·75 p/b, £18·50 h/b (Chapman & Hall).
- G. M. Grippen: *Distance geometry and conformational calculations*, pp 58, £10 (John Wiley).
- A. G. Konheim: *Cryptography—a primer*, pp 432, £23·40 (John Wiley).
- B. D. Ripley: *Spatial statistics*, pp 252, £19·05 (John Wiley).
- H-P Schwefel: *Numerical optimization of computer models*, pp 389, £12·50 (John Wiley).
- A. Haraux: *Non-linear evolution equations—global behaviour of solutions*, pp 313, DM 34·50, US \$18·20 (Springer-Verlag). (Lecture Notes in Mathematics, 841).
- S. Machado (ed.): *Functional Analysis, Holomorphy and approximation theory: Proceedings of Rio de Janeiro, 1978*, pp 636, US \$33·60 (Lecture Notes in Mathematics, 843). (Springer-Verlag).
- M. Kervaire, M. Ojanguren (eds): *Group de Brauer*, pp 274, DM 29, US \$15·30 (Lecture Notes in Mathematics, 844) (Springer-Verlag).
- A. Tannenbaum: *Invariance and system theory: Algebraic and Geometric Aspects*, pp 161, DM 21·50, US \$11·30 (Lecture Notes in Mathematics, 845) (Springer-Verlag).
- W. N. Everitt, B. D. Sleeman (eds): *Ordinary partial differential equations*, pp 384, DM 39, US \$20·50 (Lecture Notes in Mathematics, 846) (Springer-Verlag).
- U. Koschorke: *Vector fields and other vector bundle morphisms—a singularity approach*, pp 304, DM 34·50, US \$16·50 (Lecture Notes in Mathematics, 847) (Springer-Verlag).
- R. K. Amayo (ed.): *Algebra, Carbondale 1980*, pp 298, DM 34·50, US \$16·50 (Lecture Notes in Mathematics, 848) (Springer-Verlag).
- E. M. Friedlander, M. R. Stein (eds): *Algebraic K-theory, Evanston 1980*, pp 517, DM 53·50, US \$25·50 (Lecture Notes in Mathematics, 854) (Springer-Verlag).
- H. Jurgensen, M. Petrich, H. J. Weinert (eds): *Semigroups, Proceedings, Oberwolfach, Germany 1978*, pp 221, DM 25, US \$11·90 (Lecture Notes in Mathematics, 855) (Springer-Verlag).
- M. Miyanishi: *Non-complete Algebraic surfaces*, pp 244, DM 29, US \$13·80 (Lecture Notes in Mathematics, 857) (Springer-Verlag).
- E. A. Coddington, H. S. V. de Snoo: *Regular boundary value problems associated with pairs of ordinary differential expressions*, pp 225, DM 25, US \$11·90 (Lecture Notes in Mathematics, 858) (Springer-Verlag).
- M. Lerman, J. H. Schmerl, R. I. Soare (eds): *Logic Year 1979–80*, pp 326, DM 34·50, US \$16·50 (Lecture Notes in Mathematics, 859) (Springer-Verlag).
- A. Beck (ed.): *Probability in Banach Spaces III, Proceedings, Medford 1980*, pp 329, DM 34·50, US \$16·50 (Lecture Notes in Mathematics, 860) (Springer-Verlag).
- D. Dugue, E. Lukacs, V. K. Rohatgi (eds): *Analytical methods in probability theory, Proceedings, Oberwolfach, Germany 1980*, pp 183, DM 21·50, US \$10·30 (Lecture Notes in Mathematics, 861) (Springer-Verlag).
- M. B. Priestley: *Spectral analysis and time series: Volume 2: Multivariate series, prediction and control*, pp 236, £20·60, US \$49·50 (Academic Press).

- W. H. Ruckle: Sequence spaces, pp 198, £8·50 (Research Notes in Mathematics, 49) (Pitman).
- H. Berestycki, H. Brezis (eds): Recent contributions to nonlinear partial differential equations, pp 226, £9·95 (Research Notes in Mathematics, 50) (Pitman).
- H. Amann, N. Bazley, K. Kirchgassner: Applications of nonlinear analysis in the physical sciences, pp 325, £30 (Pitman).
- R. J. Knops (ed.): Trends in applications of pure mathematics to mechanics, Vol. III, pp 233, £25 (Pitman).
- D. L. Clements: Boundary value problems governed by second order elliptic systems, pp 162, £21 (Pitman).
- L. Asimow, A. J. Ellis: Convexity theory and its applications in functional analysis, pp 266, £23·20, \$56 (LMS Monograph, 16) (Academic Press).
- P. Major: Multiple Wiener-Ito integrals, pp 127, DM 18, \$8·60 (LNM 849) (Springer-Verlag).
- J. Azema, M. Yor (eds): Seminaire de probabilites XV, 1979-80, pp 704, DM 69, \$32·90 (LNM 850) (Springer-Verlag).
- D. Williams (ed.): Stochastic integrals, Proceedings, LMS Durham symposium 1980, pp 540, DM 53·50, \$25·50 (LNM 851) (Springer-Verlag).
- L. Schwartz: Geometry and probability in Banach spaces, pp 101, DM 18, \$8·60 (LNM 852) (Springer-Verlag).
- N. Boboc, G. Bucur, A. Cornea: Order and convexity in potential theory: H-cones, pp 286, DM 29, \$13·80 (LNM 853) (Springer-Verlag).
- R. Lascar: Propagation des singularites des solutions d'equations pseudo-differentielles a caracteristiques de multiplicites variables, pp 237, DM 25, \$11·90 (LNM 856) (Springer-Verlag).
- G. Eilenberger: Solitons, pp 192, DM 56, \$26·70 (Solid State Sciences, 19) (Springer-Verlag).
- J. Bernasconi, J. Schneider: Physics in one dimension, pp 368, DM 65, \$34·20 (Solid State Sciences, 23) (Springer-Verlag).
- I. S. Duff (ed.): Sparse matrices and their uses, pp 387, £18, \$43·50 (Academic Press).

THE UNIVERSITY OF AUCKLAND

New Zealand

MATHEMATICS—LECTURESHIPS (2)

Closing Date: 11 December 1981, or as soon as possible thereafter

Applicants should have postgraduate qualifications and proven research interests. Applications will be considered from those with qualifications and experience in almost any branch of Mathematics but careful consideration will be given to teaching records.

The present salary range for Lecturers is NZ\$19,835-\$23,520 per annum. Conditions of Appointment and Method of Application are available from the Assistant Registrar (Academic Appointments), University of Auckland, or from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

Applications in accordance with Method of Application should be forwarded as soon as possible but not later than the closing dates stated.

LONDON MATHEMATICAL SOCIETY

MR. N. L. BIGGS (Royal Holloway)

CUBIC GRAPHS

PROFESSOR D. WILLIAMS (Swansea)

**MARKOV CHAIN THEORY: KALEIDOSCOPE
AND CHALLENGE**

FRIDAY, 15 JANUARY 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.