

THE LONDON MATHEMATICAL SOCIETY NEWSLETTER

No. 243

November 1996

FORTHCOMING SOCIETY MEETINGS

Friday 15 November 1996, Linnean Society, London

Annual General Meeting

E. Witten, N.J. Hitchin (Presidential Address)

Friday-Saturday 21-22 February 1997, Oxford

Group Theory

Friday-Saturday 23-24 May 1997, Liverpool

Friday 20 June 1997, Linnean Society, London

ANNUAL DINNER

The 1996 Annual Dinner will be held after the Annual General Meeting on Friday 15 November at 6.30 pm for 7.00 pm at the Royal Air Force Club, 128 Piccadilly, London W1. The cost is £25.20 per person and members may book places for guests. The booking form, enclosed with the October Newsletter, should be returned together with payment to the London Mathematical Society office by **Friday 8 November**.

MATHEMATICAL SCIENCES ANNUAL 1997

This is the seventh issue of an annual publication containing the addresses, telephone and fax numbers of Departments of Mathematics, Statistics, Computer Science and kindred subjects at Universities and similar institutions in the United Kingdom. Copies are being distributed to all the Departments concerned for further distribution to their members. Subject to availability additional copies can be obtained directly from Professor I.M. James, Mathematical Institute, 24-29 St. Giles, Oxford OX1 3LB (please enclose a stamped addressed envelope of the right size).

VISIT OF PROFESSOR V.B. KOLMANOVSKII

Professor V.B. Kolmanovskii (Moscow University of Electronics and Mathematics) is visiting the UK for the month of November 1996, with LMS support under the FSU scheme. He will be working in the Department of Mathematics, University of Manchester, and will give a public seminar on 20th November. His interests are in partial integro-differential equations and problems of stability. For further information please contact Professor J. Walsh, Department of Mathematics, University of Manchester (e-mail: jwalsh@ma.man.ac.uk).

DEPARTMENTAL NEWS

University of Glamorgan Ronald J. Wiltshire has been appointed Professor of Applied Mathematics from 20 June 1996.

PAUL ERDÖS

Professor Paul Erdős, who was elected a member of the London Mathematical Society on 13 December 1934 and an Honorary Member on 15 March 1973, died on 20 September 1996 at the age of 83.

TENURE TRACK AND SENIOR POSTDOCTORAL POSITIONS MATHEMATICS

The International Centre for Theoretical Physics in Trieste, Italy, a UNESCO-IAEA organisation, is actively seeking to enlarge its research groups. Applications are invited for (a) young tenure track and (b) senior postdoctoral positions. Successful tenure-track candidates will be evaluated after three years to decide whether a tenure position will be offered or that the decision on tenureship should be postponed for two more years. Incumbents should have a natural inclination towards assisting the advancement of basic sciences in developing countries, and be willing to collaborate with visiting scientists. They will be free to pursue their own research topics, in addition to assisting in group scientific activities. The take-home salary will range from US\$30,000 to US\$40,000 per annum according to qualifications and seniority. Travel, removal and family allowances may also be included, as well as an annual research travel grant.

In addition to these positions, the Centre also grants every year a number of postdoctoral and visiting fellowships mainly to mathematicians working in developing countries. The candidates would be expected to interact with these mathematicians. The present research interests of the Mathematics Section are in the fields of Algebraic Geometry, Algebra and Analysis. The new openings will be in the areas of Algebraic Geometry and Differential Geometry, preferably with emphasis on moduli problems.

Applicants should send a detailed curriculum vitae (including personal as well as professional data) with a full list of publications, and arrange for three letters of recommendation to be sent, to: Mathematics Section, International Centre for Theoretical Physics, Strada Costiera 11, 34100 Trieste, Italy (e-mail: laurenti@ictp.trieste.it), before **31 December 1996**.



UNIVERSITY OF OXFORD

Savilian Professorship of Geometry

The electors intend to proceed to an election to the Savilian Professorship of Geometry with effect from as early a date as may be arranged. Applicants will be welcome from any area of Pure Mathematics.

A non-stipendiary professorial fellowship at New College is attached to the professorship.

Applications (ten copies, or one only from overseas candidates), naming three referees, should be received not later than 2 December 1996 by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained.

The University is an Equal Opportunities Employer.

LONDON MATHEMATICAL SOCIETY

Annual General Meeting

Friday 15 November 1996 at 3.15 p.m.

Professor E. WITTEN (Princeton)
will speak at 3.30 p.m.
on

Hyperkähler Metrics and Invariants of Three-Manifolds

Professor N.J. HITCHIN (Cambridge)
will give his Presidential Address at 5.00 p.m.:

A Lecture on the Icosahedron

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

The meeting will be held at the Linnean Society,
Burlington House, Piccadilly, London W1

PLEASE NOTE EARLY START AT 3.15p.m.

15th IMACS WORLD CONGRESS

The International Association for Mathematics and Computers in Simulation (IMACS) is an organization of professionals and scientists concerned with computers, computation and applied mathematics, in particular, as they apply to the simulation of systems. This includes numerical analysis, mathematical modelling, approximation theory, computer hardware and software, programming languages and compilers. IMACS also concerns itself with the general philosophy of scientific computation and applied mathematics, and with their impact on society and on disciplinary and interdisciplinary research. The 15th IMACS World Congress 1997 on Scientific Computation, Modelling and Applied Mathematics will be held in Berlin, Germany, 24-29 August 1997. This is a call for organized sessions/papers.

Topics The topics of interest related to Applied Mathematics and Scientific Computation include, but are not limited to:

- Methods for ODEs, SDEs and PDEs
- Integral Equations
- Computational Linear Algebra
- Parallel Computing
- Computer Arithmetic
- Computational Physics/Chemistry/Biology
- Computational Acoustics
- Computational Fluid Dynamics
- Computational Optimization
- Nonlinear Science
- Knowledge-based Systems
- Symbolic Computation
- Modelling and Simulation
- Applications in Engineering, Control Systems,
- Robotics, Biology, Medicine, Economics, the Environment
- Other relevant applications

Deadlines Submission of sessions and papers due by 1 December 1996; (in case of multiple authors mark the correspondence author); notification of acceptance due by 28 February 1997; camera-ready papers due by 30 April 1997. For detailed information refer to WWW page: <http://www.first.gmd.de/imacs97/> or send an e-mail to: imacs97@first.gmd.de.

CORRECTION

Part of David Brannan's article on 'Electronic Publishing of Mathematics Journals' in the last issue of the Newsletter was lost after proof-reading. The second paragraph on page 7 should read:

If publishers have no income, or little income, the necessary consequences are that:

- Papers will be less well prepared and less easy to understand;
- In the long term, papers will simply "disappear".

The Editors apologise for this mistake.

UNITED KINGDOM MATHEMATICS TRUST

Until this year the organisational structure of the pyramid of national mathematics competitions in the UK has been fragmented. The newer events have been run by the *UK Mathematics Foundation* from one small office in Birmingham; the multiple-choice *National Mathematics Contest* (for years 12-13) has been run by a committee of the Mathematical Association; and the senior *British Mathematical Olympiad* and the subsequent selection and training for the *International Mathematical Olympiad* have been run by the free-standing *British Mathematical Olympiad Committee*.

Since 1988 the number of schools involved in national competitions has grown from 340 to around 2,500, and the number of pupils taking part each year has grown from around 7,500 to almost 300,000. The structure is now simply too big to be left at the mercy of *ad hoc* arrangements, or to depend on mavericks.

On Wednesday 11 September 1996, the **United Kingdom Mathematics Trust** (UKMT) was launched at the annual meeting of the British Association for the Advancement of Science. The *Memorandum and Articles of Association* of the UKMT have been provisionally approved by the Charity Commissioners, and the Trust will be both incorporated (as a limited liability company) and fully registered as a charity. The first meeting of the Board of Trustees - Chair: Dr Peter Neumann (Queen's College, Oxford) -

took place on the morning of 11 September.

The work involved in drafting the *Memorandum and Articles of Association* of the UKMT has been done (under the auspices of the Royal Institution, and with the support of the London Mathematical Society, the Mathematical Association, the Royal Society, the Institute of Mathematics and its Applications, the UK Mathematics Foundation and the University of Leeds) by a five-man working group (Dr Peter Neumann of Queen's College, Oxford and Chair of the British Mathematical Olympiad Committee; Dr Roger Bray of the Royal Institution; Peter Thomas, Chair of the National Committee for Mathematical Contests of the Mathematical Association; Dr Alan Slomson of the University of Leeds; and Dr Tony Gardiner of the UK Mathematics Foundation).

While the most obvious task of the UKMT is to run the pyramid of national mathematics competitions, its constitution sets this task firmly in a larger context (mainly at secondary level). One may thus anticipate that it will also publish and distribute materials, develop and support a network of *Regional Circles*, and continue to run (and extend) residential courses.

The work of the UKMT will be initially divided horizontally and vertically:

- horizontally (distinguishing between on the one hand popular *Challenges* for large numbers of students, and on the other the more selective *Olympiads*);
- vertically (distinguishing between the *Junior* and *Intermediate* events for those aged 11-16, and the *Senior* events for those aged 16-19).

While seeking to develop the necessary links between these divisions, the UKMT will delegate its work to four "subtrusts": the *Junior & Intermediate Challenge* subtrust; the *Junior & Intermediate Olympiad* subtrust; the *Senior Challenge* subtrust; and the *Senior Olympiad* subtrust. This structure has the advantage of allowing a measure of continuity.

Anyone who might be interested in contributing to the work of the UKMT in some way is encouraged to get in touch with Dr Peter Neumann (Queen's College, Oxford OX1 4AW).

Tony Gardiner

EUROPEAN FUNDING

There has been considerable discussion about perceived difficulties in obtaining funds for mathematical research from European Union sources. In particular, this issue has been discussed several times by the LMS Funding Committee and it wishes to draw the following points to the attention of LMS members:

1. The amount of funding awarded to any subject is (roughly) a fixed proportion of the total amount of the applications submitted in a subject. So if more mathematics applications are made, more will be awarded.
2. Applications should explain why the particular research funds requested would benefit more from European funding than from national funding. Scientific rather than financial reasons should be given.
3. Applications involving research groups from several countries are more likely to be successful than ones involving one or two countries.

E.G. Rees
Chairman, Funding Committee

POPULARISATION OF MATHEMATICS ON THE WEB

The Centre for the Popularisation of Mathematics (CPM) at University of Wales, Bangor, has developed a World Wide Web site, "Symbolic Sculptures and Mathematics" <http://www.bangor.ac.uk/~mas007>. The aim is to present some of the mathematics and science related to John Robinson's Universe Series of Symbolic Sculptures, and so to show mathematics as associated not only with utility, or achievement, as is well recognised, but also with originality and beauty of form. This project was supported by Edition Limitée and the School of Mathematics.

Another completed project has put the exhibition "Mathematics and Knots" on the Web. This was supported by the London Mathematical Society. It may be accessed from the London Mathematical Society home page, and also from the home page of the CPM (<http://www.bangor.ac.uk/ma/CPM>).



WARWICK

MATHEMATICS RESEARCH CENTRE

Workshop on

NONLINEAR DYNAMICS AND SPECTRA OF MOLECULES
Tuesday 18th — Friday 21st March 1997

The workshop will review recent work on the nonlinear classical and semi-classical mechanics of symmetric systems and their applications to the dynamics and spectra of molecules and atoms. Major themes will include:

- Geometrical and topological approaches to the dynamics of molecules and atoms
- Using classical dynamics to predict and interpret spectra
- Symmetry aspects of semi-classical quantization of regular and chaotic dynamics
- Applications to small highly symmetric molecules

Particular emphasis will be placed on exploring possible applications of recent theoretical developments and on discussing problems for which new theoretical work is needed.

Participants are expected to include:

M.S. Child	(Oxford)	J.B. Delos	(William & Mary)
G.S. Ezra	(Cornell)	S.C. Farantos	(Heraklion)
N.C. Handy	(Cambridge)	E. Heller	(Harvard)
J.S.W. Lamb	(Warwick)	A.D. Lewis	(Warwick)
L. Michel	(IHES)	J.A. Montaldi	(Nice)
R. Prosmiiti	(UCL)	R.M. Roberts	(Warwick)
D.A. Sadovskii	(U. du Littoral)	B.T. Sutcliffe	(York)
J. Tennyson	(UCL)	B. Zhilinskii	(U. du Littoral)

The workshop is being organized by Mark Roberts and Jonathan Tennyson. Further details about the programme will be circulated later this year. To be included in the mailing list, potential participants should contact either:

*Elaine Greaves or Peta McAllister
Mathematics Research Centre
University of Warwick
Coventry CV4 7AL, UK*

e-mail: elaine or peta@maths.warwick.ac.uk



A Newton Institute Instructional Conference
REPRESENTATION THEORY OF ALGEBRAIC
GROUPS AND RELATED FINITE GROUPS
6 - 11 January 1997

Organisers: M. Broué (Paris), R.W. Carter (Warwick), J. Saxl (Cambridge).

Participants The Instructional Conference is aimed at research mathematicians and research students who wish to extend their understanding of the representation theory of reductive algebraic groups and the corresponding finite groups of Lie type.

Lecture courses The following short lecture courses, each of about three lectures, are expected to be included in the programme:

- Introduction to algebraic groups and Lie algebras - R.W. Carter
- Finite groups of Lie type - M. Geck
- Weyl groups, affine Weyl groups, and reflection groups - R. Rouquier
- Abelian categories and derived categories - B. Keller
- Generalized Harish Chandra theory - M. Broué
- Introduction to intersection cohomology - J. Rickard
- Introduction to Lusztig's conjectured character formula - S. Donkin
- Introduction to quantum groups - J.C. Jantzen
- Introduction to the subgroup structure of algebraic groups - M.W. Liebeck

The lecture series will run from Monday 6 January until lunch on Saturday 11 January.

Grants The conference is supported by a grant from the European Union which will provide grants towards the registration, travel and subsistence costs of selected young (under 35 years for men and 40 years for women) participants. Applications from those living in Greece, Ireland and Portugal are particularly encouraged. Self-supporting applicants of any age or nationality are welcome.

Conference location and costs The conference will take place in the Newton Institute which is located about one mile west of Cambridge city centre. The total cost of attending the conference, including full board accommodation from the evening of Sunday 5 to midday on Saturday 11 January, will be approximately £280. Accommodation will be provided adjacent to the Institute in Wolfson Court.

Further information and application forms These are available from the WWW at <http://www.newton.cam.ac.uk> where general information about the Newton Institute can also be found, or from Michael Sekulla at e-mail: m.sekulla@newton.cam.ac.uk. Closing date for the receipt of applications is **30 November 1996**.

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Probability and Information

An Integrated Approach

David Applebaum

This elementary introduction to probability and information theory is suitable as a textbook for beginning students in mathematics, statistics or computer science.

£45.00 HB 0 521 55507 8 232 pp. 1996
£15.95 PB 0 521 55528 0

Current Topics in Complex Algebraic Geometry**Edited by C. H. Clemens and J. Kollár**

The 1992/93 academic year at the Mathematical Sciences Research Institute was devoted to Complex Algebraic Geometry. This volume collects survey articles that arising from that event.

£24.95 HB 0 521 56244 9 172 pp. 1996
Mathematical Sciences Research Institute Publications 28

Complex Algebraic Surfaces

Second Edition

Arnaud Beauville

A lucid and concise account of the classification of algebraic surfaces, expressed simply in the language of modern topology and sheaf theory. The exercises included give the flavour of the wealth of examples in the subject.

£37.50 HB 0 521 49510 5 143 pp. 1996
LMS Member Price £28.10
£13.95 PB 0 521 49842 2
LMS Member Price £10.40

*London Mathematical Society Student Texts 34***Logic Colloquium '92****Edited by Laszlo Czirmaz, Dov M. Gabbay and Maarten de Rijke**

Two of the main themes of the *Logic Colloquium '92* were algebraic logic, and axiomatisability and decidability of logical systems. This volume on algebraic logic and related areas has contributions by leading people in the field.

£40.00 HB 1 881 526976 336 pp. 1996
£14.95 PB 1 881 526984

*Studies in Logic, Language and Information 1***Logic and Visual Information****Eric Hammer**

This book examines the logical foundations of visual information (e.g. diagrams, graphs, charts, tables, and maps). The importance of visual information is clear from its presence in reasoning and communication, and in computation.

£30.00 HB 1 881 526879 136 pp. 1996
£11.95 PB 1 881 526992

*Studies in Logic, Language and Information 3***Lévy Processes****Jean Bertoin**

This is an up-to-date and comprehensive account of the theory of Lévy processes. Professor Bertoin uses the interplay between the probabilistic structure and analytic tools to give a quick and concise treatment of the core theory, with the minimum of technical requirements.

£35.00 HB 0 521 56243 0 275 pp. 1996
Cambridge Tracts in Mathematics 121

Cambridge books are available from good bookshops, alternatively phone UK + 44 (0)1223 325959 or fax UK +44 (0)1223 325959. For further information, please email Giulia Williams or the Worldwide Web server <http://www.cup.cam.ac.uk>

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Semigroups and Applications

Proceedings of the 1994 Conference
Commemorating the Work of Alfred H. Clifford

Edited by **Karl H. Hofmann**
and **Michael W. Mislove**

These survey articles provide historical information on how the area of semigroups evolved, as well as articles showing new and important areas of applications of semigroup theory.

£19.95 PB 0 521 57669 5 175 pp. 1996
LMS Member Price £14.90

London Mathematical Society Lecture Note Series 231

Manifolds and Geometry

P. de Bartolomeis, F. Tricerri and E. Vesentini

Brought together in this book are papers from a conference on differential geometry held in Pisa, in honour of Eugenio Calabi. The contributions cover a wide spectrum of areas and give an unsurpassed overview of research into differential geometry.

£40.00 HB 0 521 56216 3 331 pp. 1996
Symposia Mathematica 36

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For graduate courses in Banach space theory: as the only introduction to the modern theory it will also be an essential companion for professional mathematicians working in the subject.

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Bulletin of the LMS

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A VISIT TO THE EULER INSTITUTE

The Euler International Institute of Mathematics is a research institute housed in a Baroque palace on the banks of one of the central canals in St. Petersburg. Its founding was among the last acts of the Soviet regime in Russia. It was a high level political decision to vote a considerable sum to the establishment of a prestige international institute along the lines of the Mittag-Leffler Institute or MSRI, in recognition of the Soviet mathematical community's standing in world mathematics. The project, under the Academy of Sciences, had sufficient momentum to survive the collapse of communism in Russia, and over a period of eight or nine years a fine building donated (or lent - the issue is before the courts) by the city of St. Petersburg has been beautifully restored and equipped to the point that it is now a prime venue for scientific meetings. However, the turbulent events of recent Russian history have been reflected in the affairs of the new Institute. There have been bitter differences between various factions, which have delayed the Institute's opening for business and have resulted (from July 1996) in its being taken over by the St. Petersburg branch of the Steklov Institute. Accusations and denunciations have been widely circulated by e-mail, and Russians in the know speak of the War of the Euler Institute. Although the war seems to be over, it is still apparently reverberating through the courts. I have not followed the conflict; I believe that the central issue was the question of how the Institute will operate now that economic transformation has rendered unattainable the level of recurrent funding from the resources of the Academy which would be needed for the original conception.

Well-wishers from outside Russia have tried to help the new Institute. The LMS and the AMS have given money and equipment. The European Community in 1993 set up a special scheme to assist the Institute by paying the expenses of Com-

munity citizens who visit there. Under this scheme a significant sum was allocated to British mathematicians, to be administered by the LMS. More than a dozen British mathematicians contracted to visit St. Petersburg with the support of funds from this scheme. However, whether because of delays in Brussels or battles in St. Petersburg, only one of the planned visits (that of Professor Wilfrid Hodges) had taken place by May of this year. I was the second to go at the end of June. I was able to accept an invitation to visit the Institute and meet members of the St. Petersburg analysis school, which remains strong despite the dispersal of numerous prominent members around the globe. My lecture ("Functions which are almost multipliers of Hilbert function spaces") was well attended, and I made the acquaintance of several people whose names were familiar to me.

The Institute is an impressive building. It has good facilities, though perhaps less lavish than, say, MSRI. I believe it would be an excellent place to hold a meeting; this belief is about to be put to the test. One of the purposes of my visit was to plan a British-Russian Workshop in Functional Analysis, partly supported by the EC funds mentioned above. This event will take place from 13-17 October, with the participation of 10 British and about 20 FSU and Eastern European mathematicians. Immediately following it there will be a meeting on algebraic number theory.

The new Director, the celebrated logician Yuri Matiyasevich, is succeeding in organising scientific activity, though I believe it is fair to say that the Institute is not yet exploited to the full. In the current Russian financial climate it is hard to see where the resources could be found to run it along the lines originally envisaged, and at present it is playing a more modest role. It has great potential to serve the Russian and international mathematical communities; let us hope it will not prove an undue burden on the Academy of Sciences and will survive till better times.

St. Petersburg is a wonderful city to visit, and the Institute has a "Tetè-a-

tete" programme which provides facilities for collaborators (one Russian, one foreign) to work together. This could be a very pleasant way to do mathematics. I myself was accommodated in a private flat just off Zagorodni Prospect. It was about an hour's travel from the Euler Institute (30 minutes on foot, 30 minutes in the Metro) and 25 minutes' walk from POMI. It suited me very well. It was a spacious old flat with one large room and a kitchen, very old fashioned but central and reasonably priced at US\$150 per week.

Information can be found on <http://www.ac.msk.su/local.docs/EmNet/eimi.html>.

N.J. Young
Lancaster University

1996 INTERNATIONAL MATHEMATICAL OLYMPIAD

This year's IMO took place in Mumbai (Bombay). The UK team - David Bibby (Ysgol; Rhiwabon), Michael Ching (Oundle S), Toby Gee (John of Gaunt S), John Haslegrave (King Henry VIII S), Hugh Robinson (King Henry VIII S), Paul Russell (St Brides HS), with Dr Adam McBride (Strathclyde) as Leader and Philip Coggins (Bedford S) as Deputy Leader - performed remarkably well, returning with two Gold medals (David and Michael) and four Silver medals. The team finished fifth out of seventy-five teams: the final ranking was: Romania 187; USA 185; Hungary 167; Russian 162; UK 161; China 160; Vietnam 155; Republic of Korea 151; Iran 143; Germany 137. This was the first time all members of a UK team have achieved Silver or better.

The team is chosen each year on the basis of a sequence of papers and a short residential meeting. After the two rounds of the British Mathematical Olympiad twenty students are invited to attend the four day "training weekend" at Trinity College, Cambridge in April. The team (plus reserves) are then chosen, and begin an intensive problem-solving correspondence programme - managing somehow to fit this in around A levels and STEP

exams. This year the team met for an additional two days prior to the IMO in late June at the National Mathematics Summer School, held in University College, Oxford. (Most other countries in the top twenty or so run well-funded and well-staffed residential training sessions for anything from 3 weeks to 3 months - and more in some cases.)

Tony Gardiner

BRITISH WOMEN MATHEMATICIANS' DAY, 1996

The second British Women Mathematicians' Day will take place on Monday 16 December 1996 at the Royal Statistical Society in London. The programme will last from 11 am to 5.30 pm, with coffee available from 10.30 am. The main aim of the meeting is to provide an opportunity for women mathematicians, especially those who feel rather isolated, to spend time together for mutual support and encouragement, while learning some mathematics, but all members of the mathematical community are most welcome.

The main speaker will be Professor Dusa McDuff from Stony Brook, whose title is "What is special about symplectic geometry?". There will also be talks by three research students: Jan Currie from Lancaster on "Food poisoning in the north-west of England - an application of space-time point process methodology"; Evelyn Morrison from Oxford Brookes on "Shape identification in electrical impedance tomography" and Stephanie van Willigenburg from St. Andrews on "Ancient and modern algebra". A video produced by European Women in Mathematics will be shown and followed by a panel discussion.

For further details and application form, please contact Ruth Williams (DAMTP, Silver Street, Cambridge CB3 9EW; e-mail: rmw7@damtp.cam.ac.uk). It is essential that you book beforehand if you want lunch and if you want to apply for the financial support available to research students through the generosity of the London Mathematical Society which is again funding the meeting.

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Neural Networks and Qualitative Physics

A Viability Approach

Jean-Pierre Aubin

This book is devoted to mathematical methods (control and viability theory, set-valued analysis, etc.) arising in such domains of artificial intelligence as neural networks, cognitive systems and qualitative physics.

£29.95 HB 0 521 44532 9 288 pp. 1996

Combinatorial Methods in Discrete Mathematics**Vladimir N. Sachkov**

Translated by V. Kolchin

An account of some complex problems of discrete mathematics in a simple and unified form, describing many ideas not previously available in English.

£45.00 HB 0 521 45513 8 318 pp. 1996

Encyclopedia of Mathematics and its Applications 55

Families of Exponentials

The Method of Moments in Controllability Problems for Distributed Parameter Systems

Sergei A. Avdonin and Sergei A. Ivanov

This book presents the newly developed theory of non-harmonic Fourier series and its applications to the control of distributed parameter systems. The modern theory of exponentials and the method of moments are the primary tools used.

£35.00 HB 0 521 45243 0 256 pp. 1996

Bounded Arithmetic, Propositional Logic and Complexity Theory**Jan Krajicek**

An up-to-date, unified treatment of research in this subject, with emphasis on independence proofs and lower bound proofs. The author discusses the connections between logic and computational complexity theory.

£40.00 HB 0 521 45205 8 359 pp. 1996

Encyclopaedia of Mathematics and its Applications 60

Ergodicity for Infinite Dimensional Systems**G. da Prato and J. Zabczyk**

This book is devoted to the asymptotic properties of solutions of stochastic evolution equations in infinite dimensional spaces. Some of the results found here are presented for the first time.

£29.95 PB 0 521 57900 7 352 pp. 1996

LMS Member Price £22.40

London Mathematical Society Lecture Note Series 229

Ergodic Theory and Zd Actions**Mark Pollicott and Klaus Schmidt**

This book represents the proceedings of the 1993-4 Warwick Symposium on Z_d actions. It comprises a mixture of surveys and original articles, including important connections with statistical mechanics, number theory and algebra.

£29.95 PB 0 521 57688 1 496 pp. 1996

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£25.00 HB 0 521 48072 8 240 pp. 1996
Cambridge Studies in Advanced Mathematics 47

Set Theory, Logic and their Limitations

Moshé Machover

This is an introduction to set theory and logic for students of mathematics or philosophy that starts completely from scratch. A rigorous axiomatic presentation of Zermelo-Fraenkel set theory is given, followed by a presentation of propositional and first-order logic.

£40.00 HB 0 521 47493 0 298 pp. 1996
£14.95 PB 0 521 47998 3

Continuum Percolation

Ronald Meester and Rahul Roy

This book presents a unified account of continuum percolation. The treatment is self-contained, assuming only familiarity with measure theory and basic probability theory.

£35.00 HB 0 521 47504 X 252 pp. 1996
Cambridge Tracts in Mathematics 119

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RI 02940, U.S.A.

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Australian National University,
ACT 0200, Australia.

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RESEARCH COLLABORATIVE SCHEME

The International Centre for Mathematical Sciences has established a Research Collaborative Scheme. The main feature is that a group of two or more mathematicians can apply to use the facilities of ICMS at 14 India Street, Edinburgh for the purposes of working together on a collaborative project. The periods available are those when there is room available at ICMS. The LMS Council has declared that visits by mathematicians (from within the UK) to the ICMS for a short period of collaborative research would qualify for consideration for the award of an LMS Scheme 4 grant.

Enquiries should be made to the Executive Director, International Centre for Mathematical Sciences, 14 India Street, Edinburgh EH3 6EZ, tel: 0131 220 1777; e-mail: icms@maths.ed.ac.uk, fax: 0131 220 1053.



M. VOIGT
Honorary Member 1913

DIARY

The diary lists Society meetings and other events publicized in previous issues of the Newsletter. For further information, refer to the figure in brackets, which is a cross reference to the LMS Newsletter number.

NOVEMBER 1996

- 1-2 North British Functional Analysis Seminar, Glasgow (241)
15 London Mathematical Society Annual General Meeting, Presidential Address, Linnean Society, London
15 Edinburgh Mathematical Society Meeting, Strathclyde (241)
15-18 Oscillatory Integrals and Curvature in Harmonic Analysis Workshop, ICMS, Edinburgh (241)

DECEMBER 1996

- 6 Edinburgh Mathematical Society Meeting, Napier (241)
9-13 Discrete Mathematics and Theoretical Computer Science Conference, Auckland, New Zealand (238)

JANUARY 1997

- 2-5 Mathematics Education and Applications Conference, Nicosia, Cyprus (242)
17 Edinburgh Mathematical Society Meeting, Edinburgh (241)

FEBRUARY 1997

- 14 Edinburgh Mathematical Society Meeting, Edinburgh (241)
21-22 Group Theory, Two-day London Mathematical Society Meeting, Oxford

MARCH 1997

- 14 Edinburgh Mathematical Society Meeting, Stirling (241)

APRIL 1997

- 7-11 Models and Algorithms for Planning and Scheduling Problems Workshop, Queen's College, Cambridge (242)
8-11 Fractals in the Natural and Applied Sciences, Denver, Colorado, USA (233)

- 11-14 Low Dimensional Topology Conference, Sussex University (242)
14-17 British Mathematical Colloquium, Royal Holloway, Surrey (242)
14-18 LMS Invited Lectures, Birmingham University, Professor J.L. Alperin (238)

MAY 1997

- 2 Edinburgh Mathematical Society Meeting, Aberdeen (241)
23-24 Two-day London Mathematical Society Meeting, Liverpool

JUNE 1997

- 6 Edinburgh Mathematical Society Meeting, St Andrews (241)
20 London Mathematical Society Meeting, Linnean Society, London
30-1 July Boundary Integral Methods Conference, Leeds University (242)

JULY 1997

- 7-11 British Combinatorial Conference, Queen Mary & Westfield College, London (230)

OCTOBER 1997

- 17-18 Two-Day London Mathematical Society Meeting, London

NOVEMBER 1997

- 21 London Mathematical Society, Annual General Meeting, London

APRIL 1998

- 6-9 British Mathematical Colloquium, Manchester University

AUGUST 1998

- 18-28 International Congress of Mathematicians, Berlin, Germany (238) (242)

The Newsletter is published monthly except in August. Items and advertisements for inclusion in the Newsletter should be sent to the Editor, Susan Oakes, by e-mail, fax or post to the LMS office (addresses below), to arrive before the first day of the month prior to publication.

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