

ROLLO DAVIDSON TRUST

At a meeting of the Trustees on 18 March 1988, Rollo Davidson Prizes were awarded to

P.H. BAXENDALE (of the Mathematics Department, University of Florida, Gainesville, USA) for his work on stochastic flows of diffeomorphisms and especially for his study of their asymptotic behaviour

and (jointly) to

I.Z. RUSZA (of the Mathematical Institute of the Hungarian Academy of Sciences, Budapest, Hungary) and **G.J. SZÉKELY** (of the Eötvös Loránd University, Mathematical Institute, Department of Probability Theory, Budapest, Hungary) for their joint contributions to algebraic probability and more especially the arithmetic of semigroups of probabilistic objects.

The Trust commenced its work in 1976, and twenty prizes have now been awarded. It is supported by royalties and individual donations: correspondence should be addressed to its Secretary, The Bursar, Churchill College, Cambridge CB3 0DS, UK.

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Stochastic Hydrology and Hydraulics

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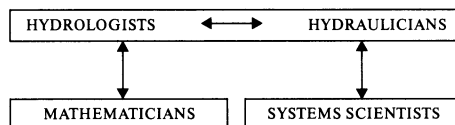
Stochastic Hydrology and Hydraulics

will publish research papers, reviews and technical notes on stochastic and probabilistic approaches to hydrology and hydraulics by covering all processes of the hydrological cycle including water quality.

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Stochastic Hydrology and Hydraulics aims

- to promote the publication of manuscripts specifically devoted to the theory and application of stochastic processes in hydrology and in hydraulics by covering all processes of the hydrological cycle
- to publish in a single journal contributions by mathematicians, systems scientists, engineering hydrologists and hydraulicians, thereby promoting the exchange of ideas and the cross-fertilization of different sciences as depicted below



- to further research in stochastic and probabilistic approaches to hydrology and hydraulics, thereby providing incentives to the use of such approaches in the above specified fields of engineering

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The *Journal of Time Series Analysis* is sponsored by the Bernoulli Society for Mathematical Statistics and Probability. Papers published in the journal cover all aspects of Time Series Analysis and deal with both the basic theory and methodology, and with applications to diverse fields, such as physics, engineering, control theory, economics and biology.

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Advances in Applied Probability

The Editorial Board would like to encourage the submission to the *Advances* of review papers summarising and coordinating recent results in any of the fields of applied probability.

In addition to these review papers, *Advances* is also designed to be a medium of publication for (1) longer research papers in applied probability, which may include expository material, (2) expository papers on branches of mathematics of interest to probabilists, (3) papers outlining areas in the biological, physical, social and technological sciences in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.

In short, the main function of *Advances* is to define areas of recent progress and potential development in applied probability. As with the *Journal of Applied Probability*, *Advances* undertakes to publish papers accepted by the Editors within 15 months of their submission; letters to the editor will normally be published more rapidly.

The Editor-in-Chief is J. Gani; the Coordinating Editors are N. H. Bingham, C. C. Heyde and M. F. Neuts; other editors are P. J. Brockwell, V. R. Cane, J. W. Cohen, E. J. Hannan, J. Keilson, D. G. Kendall, J. F. C. Kingman, K. Krickeberg, R. M. Loynes, K. R. Parthasarathy, C. A. B. Smith, and R. L. Tweedie. The Editorial Office of the *Advances* is in the Department of Probability and Statistics, The University, Sheffield S3 7RH, England.

Volume 20 No. 2 of *Advances* contains the following papers:

M. L. STURGEON. Probabilistic profiles of continuously replenished spherically symmetric clouds

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MOSHE SHAKED AND J. GEORGE SHANTHIKUMAR. Stochastic convexity and its applications

TZE LEUNG LAI AND ZHILIANG YING. Open bandit processes and optimal scheduling of queueing networks

Subscription rates (per volume) for the *Advances* in 1988 are the same as for the *Journal* (see inside back cover). A discount of 10% is allowed to subscribers who order current issues of both the *Journal* and *Advances* at the same time direct from the Applied Probability Office. A detailed price list for both current and back issues is available on request.

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Department of Probability and Statistics,
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NEW FOR 1988

A CELEBRATION OF APPLIED PROBABILITY

Journal of Applied Probability (JAP) Supplementary Volume 25A

This supplementary volume will be published around September 1988 to mark the twenty-fifth anniversary of JAP, and will contain material of interest to all those working in probability and related fields. There will be 27 contributions by former and present editors of the Applied Probability journals, including articles on the history of the subject and the development of the Applied Probability Trust, as well as technical papers. The contents will be in eight sections, as follows:

1. Some thoughts on applied probability
(J. Gani, D. G. Kendall, M. F. Neuts)
2. The first quarter-century of the Applied Probability Trust
(Mavis Hitchcock, Kathleen M. Lyle)
3. Stochastic models in biology and field trials
(M. S. Bartlett, Peter J. Brockwell, J. F. C. Kingman, Cedric A. B. Smith/Robert Thomson)
4. Applied probability and quantum theory
(P. D. Finch, K. R. Parthasarathy, Geoffrey S. Watson)
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(A. D. Barbour, S. Karlin, R. M. Loynes)
6. The analysis of stochastic phenomena
(N. H. Bingham, Ron Engelen/Paul Thommassen/Wim Vervaat, J. Keilson/
M. Zachman, N. U. Prabhu, R. L. Tweedie, P. Whittle)
7. Stationary processes and time series
(E. J. Hannan/J. Rissanen, C. C. Heyde)
8. Random walks, graphs and networks
(J. W. Cohen, J. Gani, J. M. Hammersley, Lajos Takács)

This book, which will be hardbound and contain approximately 370 pages, costs £25.00 (US\$40.00; \$A.58.00). Orders may be placed now (remittances in favour of 'Applied Probability', please) by writing to

Executive Editor,
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Department of Probability and Statistics,
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THE MATHEMATICAL SCIENTIST (TMS)

As from 1988 the Applied Probability Trust has assumed responsibility for the publication of TMS. Its first twelve volumes were published in Australia by CSIRO and the Australian Mathematical Society; starting with the current Volume 13 it will be an Applied Probability Trust publication administered and distributed from the Trust's headquarters in Sheffield.

TMS contains papers on a variety of mathematical topics for the general information and enjoyment of mathematicians, statisticians and computer scientists; it will also appeal to workers in any other discipline lending itself to the application of mathematical methods. The following papers are to be found in the June 1988 issue:

The key renewal theorem revisited, by P. TODOROVIC

Latin squares and agriculture: the other bicentennial, by ANNE PENFOLD STREET and DEBORAH J. STREET

Rank factorization of a matrix and its applications, by P. BHIMASANKARAM

The solution of point/line/plane problems in three dimensions by means of one simple vector function, by R. M. JOHNSON

A bibliography of statistical bibliographies: a twentieth list, by H. O. LANCASTER

Modelling counts in biological populations, by GILLIAN Z. STEIN

The probability that a random matrix is singular, by W. F. SCOTT

Coning in oil reservoirs, by J. R. BLAKE and A. KUCERA.

Readers are encouraged to submit short papers, letters and problems concerned with the theory and application of mathematics, statistics or computing. Material for publication should be presented in a clear and simple style, suitable for an informed but non-specialist mathematical audience, and may be sent to any member of the newly formed international editorial board of TMS:

Editor-in-chief: J. Gani (*University of California, Santa Barbara*)

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R. Anderssen (*CSIRO, Canberra*), Rosemary Bailey (*Rothamsted Experimental Station, Harpenden*), J. Blake (*University of Wollongong*), Paul M. Cohn (*University College London*), W. Forbes (*University of Waterloo*), John Gower (*Rothamsted Experimental Station, Harpenden*), C. C. Heyde (*Australian National University, Canberra*), K.-H. Hoffmann (*Universität Augsburg*), A. Konheim (*University of California, Santa Barbara*), Hilary Ockendon (*Mathematical Institute, Oxford*), Basil Rennie (*Burnside, S. Australia*), S. Resnick (*Cornell University, Ithaca, NY*), G.-C. Rota (*Massachusetts Institute of Technology*), and R. Stanton (*University of Manitoba, Winnipeg*).

Each volume consists of two issues distributed in June and December, totalling approximately 128 pages. TMS is modestly priced at £7.00 (US\$12.00; \$A.16.00); please make remittances payable to 'The Mathematical Scientist'. Orders and requests for further information should be sent to

Executive Editor, Applied Probability,
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Members of the London Mathematical Society should apply direct to the Secretary of the Society for copies of the *Journal*.

All enquiries about the *Journal*, as well as other subscriptions, should be sent to the Executive Editor, Miss M. Hitchcock, Department of Probability and Statistics, The University, Sheffield S3 7RH, England. The price of back numbers varies from volume to volume, and enquiries should be sent to the Executive Editor. Cheques, money orders, etc. should be made out to *Applied Probability*; cheques on U.S., U.K. and Australian banks will be acceptable.

NOTES FOR CONTRIBUTORS

Papers published in the *Journal* are of two kinds:

(1) *research papers* not exceeding 20 printed pages;

(2) *short communications* of a few printed pages in the nature of notes or brief accounts of work in progress.

Review papers, *longer research papers* and *letters to the editor* are published in *Advances in Applied Probability*, a companion journal. (Note: Letters relating specifically to papers which have appeared in the *Journal of Applied Probability* will continue to appear in the *Journal*.)

The editors may publish accepted papers in either journal, according to the space available, in order to meet the 15-month deadline in publication referred to below.

Submission of papers

It is a condition of publication in the *Journal of Applied Probability* that papers shall not previously have appeared elsewhere, and will not be reprinted without the written permission of the Trust. It is the policy of the *Journal* not to accept for publication papers which cannot appear in print within 15 months of the date of receipt of the final version. Authors will receive 50 reprints of their papers free, and joint authors a proportional share of this number. Additional reprints will be provided at cost.

Papers should be written in English or French; papers in other languages may be accepted by the editors, but will appear (subject to the author's agreement) in English or French translation in the *Journal*. Scripts should be typewritten, using double spacing, and at least one copy should be on one side of the paper only. Each paper should be accompanied by

(i) a short abstract of approximately 4–10 lines giving a non-mathematical description of the subject matter and results;

(ii) a list of keywords detailing the contents for the purpose of computerised information retrieval.

Authors are advised to consult *The Author's Guide to the Applied Probability Journals* when preparing papers for submission. A copy of this guide may be obtained on application to the Applied Probability Office.

For efficiency in processing, authors are requested to send three copies of all submissions to the Applied Probability Office in Sheffield, rather than to individual editors. Authors overseas are asked to ensure that their submissions are sent by airmail. The Editor-in-Chief and the Applied Probability Office are in regular contact and full details of all papers submitted are available to Professor Gani at the University of California at Santa Barbara.

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