

# Advances in Applied Probability

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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in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.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.

Volume 24 No. 2 of *Advances* contains the following papers:

DOUGLAS P. KENNEDY AND ROBERT P. KERTZ. Limit theorems for suprema, threshold-stopped random variables, and last exits of i.i.d. random variables with costs and discounting and applications to optimal stopping

ALLEN L. ROGINSKY. A central limit theorem with remainder term for renewal processes

ASSAD JALALI AND ALAN G. HAWKES. The distribution of apparent occupancy times in a two-state Markov process in which brief events cannot be detected

ASSAD JALALI AND ALAN G. HAWKES. Generalised eigenproblems arising in aggregated Markov processes allowing for time interval omission

A. A. BOROVKOV, G. FAYOLLE AND D. A. KORSHUNOV. Transient phenomena for Markov chains and applications

ARIE HORDIJK AND FLORA SPIEKSMAN. On ergodicity and recurrence properties of a Markov chain with an application to an open Jackson network

PIERRE BRÉMAUD, RAGHAVAN KANNURPATTI AND RAVI MAZUMDAR. Event and time averages: a review

LENNART LJUNG AND BO WAHLBERG. Asymptotic properties of the least-squares method for estimating transfer functions and disturbance spectra

A. DI CRESCENZO, V. GIORNO AND A. G. NOBILE. On some first-crossing-time probabilities for a two-dimensional random walk with correlated components

P. WHITTLE. Random fields on random graphs

DEREK ROBINSON. The optimality of fixed channel assignment policies for cellular radio systems

Subscription rates (per volume) for the *Advances* in 1992 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.

Cheques made out on U.S., U.K. and Australian banks will be acceptable: they should be made payable to *Applied Probability*, and sent to:

Executive Editor, Applied Probability,  
Department of Probability and Statistics,  
The University, Sheffield S3 7RH, England.

## THE MATHEMATICAL SCIENTIST (TMS)

This publication contains papers on a variety of mathematical topics for the general information and enjoyment of mathematicians, statisticians and computer scientists; it also appeals to workers in any other discipline lending itself to the application of mathematical methods. 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 editorial board:

Editor-in-chief: J. Gani (*Australian National University*)

### Editors:

R. Anderssen (*CSIRO, Canberra*), Rosemary Bailey (*Goldsmiths' College, London*), J. Blake (*University of Birmingham*), 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. Volume 17 (1992) costs £8.00 (US\$14.00, \$A18.00). It includes the following contributions:

Evaluating fuzzy representations of uncertainty, by Michael Laviolette and John W. Seaman, Jr.

Evidence and the posterior Bayes factor, by Murray Aitken

A brief history of infinite-dimensional skew fields, by P. M. Cohn

Comparing means of two Poisson distributions, by Hardeo Sahai and Satish C. Misra

Cover times for random walks on graphs, by Gunnar Blom and Dennis Sandell

The waiting time for the occurrence of  $k$  or more events in each of  $n$  independent Poisson processes, by William Woodside

Some (more or less) naturally occurring mixtures, by Norman L. Johnson and Samuel Kotz

A three-door game show and some of its variants, by V. V. Bapeswara Rao and M. Bhaskara Rao

A maximum likelihood proof of the Hadamard inequality, by ByoungSeon Choi

Orders and requests for further information should be sent to

Executive Editor, Applied Probability,  
Department of Probability and Statistics,  
The University, Sheffield S3 7RH, England.

## **ROLLO DAVIDSON TRUST**

The Trustees of the Rollo Davidson Trust give notice that they have awarded a Rollo Davidson Prize for 1992 as follows:

To Krzysztof Burdzy (Seattle, USA) for his work on the geometry of brownian paths.

**PRELIMINARY ANNOUNCEMENT**

**First World Conference on  
BRANCHING PROCESSES  
Varna, Bulgaria, 5–12 September 1993**

This conference to take place in Varna, Bulgaria, is being organised as a satellite conference following the 49th Session of the International Statistical Institute at Firenze, Italy. It will celebrate two anniversaries:

- 150 years since the first ideas giving rise to branching processes;
- 120 years since the papers by Galton and Watson on branching process theory.

The official language of the conference will be English.

For further details, please send your name, institution, address, and phone, telex, fax and e-mail numbers before October 1992 to

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Please indicate to the organiser whether you are interested in attending the conference; if you would like to contribute a paper, it would be helpful to give a tentative title.



## SUBSCRIPTION RATES

Subscription rates (post free) for the 1992 volume of the *Journal* are as follows:

### Subscribers in North, Central and South America, and Australia:

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### All other subscribers:

£90.00 for libraries and institutions;

£30.00 for individuals belonging to a recognised scientific society.

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

Papers submitted to the *Journal of Applied Probability* are considered on the understanding that they have not been published previously and are not under consideration by another publication. Papers 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;

(iii) primary and secondary classifications using the 1991 Mathematics Subject Classification, to be found in the 1990 Annual Index of *Mathematical Reviews*.

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 Heyde at The Australian National University in Canberra.

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