

# 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in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.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 21 No. 4 of *Advances* contains the following papers:

ERIC SLUD AND CRAIG HOESMAN. Moderate- and large-deviation probabilities in actuarial risk theory

K. V. MARDIA AND I. L. DRYDEN. Shape distributions for landmark data

J. FRANCHI. Produits semi-directs de diffusions réelles et lois asymptotiques

ENZO ORSINGHER AND BRUNO BASSAN. On the comparison of the distribution of the supremum of random fields represented by stochastic integrals

RICHARD A. DAVIS AND SIDNEY I. RESNICK. Basic properties and prediction of max-ARMA processes

I. B. ZIEDINS AND F. P. KELLY. Limit theorems for loss networks with diverse routing

P. J. HUNT AND F. P. KELLY. On critically loaded loss networks

JOHN A. GUBNER, B. GOPINATH AND S. R. S. VARADHAN. Bounding functions of Markov processes and the shortest queue problem

ZVI ROSBERG AND PARVIZ KERMANI. Customer routing to different servers with complete information

FRANÇOIS BACCELLI AND ZHEN LIU. On the stability condition of a precedence-based queueing discipline

MICHAEL L. WENOCUR. A reliability model based on the gamma process and its analytic theory

HENRY W. BLOCK, WILLIAM S. GRIFFITH AND THOMAS H. SAVITS. L-superadditive structure functions

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In 1988 the Applied Probability Trust assumed responsibility for the publication of TMS. Its first twelve volumes were published in Australia by CSIRO and the Australian Mathematical Society; starting with Volume 13 (1988) it became 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 also appeals to workers in any other discipline lending itself to the application of mathematical methods.

Volume 14 No. 2 (December 1989) contains the following contributions:

Around Sylvester's law of nullity, by P. M. Cohn

Kelvin's impulsive wrench with a free surface, by B. C. Rennie

Fibonacci numbers and the golden mean in nature, by B. S. Davis and T. A. Davis

Aspects of matrix Wiener–Hopf factorisation in applied probability, by Søren Asmussen

A probabilistic derivation for the limit of the Markov binomial distribution, by Wolfgang J. Bühler

Random sum characterizations, by R. K. Milne and G. F. Yeo

The problem of low response rates in surveys of the elderly, by M. E. Thompson and W. F. Forbes

No elementary proof of Blackwell's theorem, by F. W. Steutel and E. K. E. Willekens

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:

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

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(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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