

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in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.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 C. C. Heyde, M. F. Neuts and G. E. H. Reuter; 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. 1 of *Advances* contains the following papers:

EXTREMES OF RANDOM PROCESSES IN APPLIED PROBABILITY. Workshop sponsored by the U.S. National Science Foundation, University of California, Santa Barbara
MICHAEL F. BARNSELY AND JOHN H. ELTON. A new class of Markov processes for image encoding

KEITH N. CRANK AND PREM S. PURI. A method of approximating Markov jump processes
REUVEN Y. RUBINSTEIN AND FERENC SZIDAROVSKY. Convergence of perturbation analysis estimates for discontinuous sample functions: a general approach

NICO M. VAN DIJK AND MARTIN L. PUTERMAN. Perturbation theory for Markov reward processes with applications to queueing systems

NICO M. VAN DIJK. Perturbation theory for unbounded Markov reward processes with applications to queueing

F. P. KELLY. Routing in circuit-switched networks: optimization, shadow prices and decentralization

JOSEPH ABATE AND WARD WHITT. Transient behavior of the $M/M/1$ queue via Laplace transforms

MARTIN I. REIMAN. A multiclass feedback queue in heavy traffic

ERIC S. TOLLAR. On the limit behavior of a multicompartment storage model with an underlying Markov chain

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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. This book of approximately 320 pages will have an attractive cover. Its regular price will be £25.00 (US\$40.00; \$A.58.00), but for those whose orders are placed no later than 1 June 1988 the prepublication price is £22.50 (US\$36.00; \$A.52.20), packing and postage included.

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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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