

Subscription rates

Subscription rates (post free) for the 1981 volume of the *Journal* are as follows:

US\$90.00, \$A81.00, £39.00 for libraries and institutions;

US\$30.00, \$A27.00, £13.00 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

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 general 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.

Authors are requested to comply with the following instructions: Authors in Britain, Europe, the Middle East, Africa, North and South America should send three copies of their submissions to the Applied Probability Office in Sheffield. Authors in Australasia and the Far East should send three copies of their submissions to the Editor-in-Chief, Dr J. Gani, in Canberra.

The Editor-in-Chief and the Applied Probability Office are in direct contact by Telex, and full details of the papers submitted either in Sheffield or Canberra are available in both centres.

Alternatively, authors may submit papers to any of the Editors listed on the inside front cover. In this case, two copies of the submission should be sent to the Editor concerned, and one copy, with a copy of the covering letter, should be sent to the Applied Probability Office in Sheffield. Authors overseas are asked to ensure that their submissions are sent by air mail.

Copyright. The copyright of all published papers shall be vested in the Trust. When a paper is accepted for publication, the Trust requests the author(s) to sign a form assigning copyright to the Trust. Failure to do this promptly may delay or prevent publication.

The appearance of the code at the top of the first page of a paper in this journal indicates the Trust's consent that copies of the article may be made for personal or internal use by the copier or his specific clients. This consent is given on the condition, however, that the copier pay the stated per-copy fee through the Copyright Clearance Center, Inc., P.O.Box 765, Schenectady, New York 12301, U.S.A. for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying for general distribution, for advertising for promotional purposes, for creating new collective works, or for resale.

Volume 18 Number 2

Research Papers

- 325 KENNETH LANGE AND WILLIAM HOLMES. Stochastic stable population growth
335 L. BILLARD. Generalized two-dimensional bounded birth and death processes and some applications
348 NEIL DUBIN. Predicting the benefit of screening for disease
361 BRUCE L. MILLER. Countable-state average-cost regenerative stopping problems
378 BARRY C. ARNOLD AND RICHARD A. GROENEVELD. On excess life in certain renewal processes
390 PETER BREUER. A strong approximation for some non-stationary complex Gaussian processes
403 ERIC RENSHAW AND ROBIN HENDERSON. The correlated random walk
415 JOSEPH D. PETRUCELLI. Best-choice problems involving uncertainty of selection and recall of observations
426 MARK BROWN, HERBERT SOLOMON AND MICHAEL A. STEPHENS. Monte Carlo simulation of the renewal function
435 LARS HOLST. On sequential occupancy problems
443 TOHRU OZAKI. Non-linear threshold autoregressive models for non-linear random vibrations
452 BARRON BRAINERD. Some elaborations upon Gani's model for the type-token relationship
461 V. RAMASWAMI. Algorithms for a continuous-review (s, S) inventory system
473 PREM S. PURI AND SAMUEL W. WOOLFORD. On a generalized storage model with moment assumptions
482 P. G. HARRISON. Transient behaviour of queueing networks
491 KARMESHU AND N. K. JAISWAL. A machine interference model with threshold effect
499 ERIK A. VAN DOORN. The transient state probabilities for a queueing model where potential customers are discouraged by queue length

Short Communications

- 507 W. G. S. HINES. Multi-species population models and evolutionarily stable strategies
514 DEAN H. FEARN. A fixed-point property for Galton-Watson processes with generation dependence
520 JEREMY E. DAWSON. The algebraic equivalence of two measures of genetic distance
523 LAWRENCE E. MYERS. Survival functions induced by stochastic covariate processes
530 H. L. MACGILLIVRAY. A note on the normalised moments of distribution with non-monotonic hazard rate
536 E. M. CABAÑA AND M. WSCHEBOR. An estimate for the tails of the distribution of the supremum for a class of stationary multiparameter Gaussian processes
542 GAVIN BROWN AND J. W. SANDERS. Lognormal genesis
548 HARRY A. GUESS. An invariance principle for solutions to stochastic difference equations
554 BENGT KLEFSJÖ. Survival under the pure birth shock model
561 J. MICHAEL HARRISON AND AUSTIN J. LEMOINE. A note on networks of infinite-server queues
568 Letter to the editor