

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which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.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

Volume 23 No. 4 of *Advances* contains the following papers:

- J. M. McNAMARA, S. MERAD AND E. J. COLLINS. The hawk-dove game as an average-cost problem
ERIK A. VAN DOORN. Quasi-stationary distributions and convergence to quasi-stationarity of birth-death processes
D. A. DAWSON AND K. J. HOCHBERG. A multilevel branching model
B. CHAUVIN, P. OLIVARES-RIEUMONT AND A. ROUAULT. Fluctuations of spatial branching processes with mean-field interaction
LAJOS HORVÁTH. Weak convergence of discrete scattering processes
CLIVE R. LOADER. Large-deviation approximations to the distribution of scan statistics
FRANK BALL, ROBIN K. MILNE AND GEOFFREY F. YEO. Aggregated semi-Markov processes incorporating time interval omission
GYÖRGY TERDIK AND LAURIE MEAUX. The exact bispectra for bilinear realizable processes with Hermite degree 2
P. WHITTLE. A stochastic model of an artificial neuron
DIETMAR PFEIFER. Some remarks on Nevzorov's record model
MICHAEL R. CHERNICK, TAIEN HSING AND WILLIAM P. McCORMICK. Calculating the extremal index for a class of stationary sequences
ANANT P. GODBOLE. Poisson approximations for runs and patterns of rare events
HEIKKI HAARIO AND EERO SAKSMAN. Simulated annealing process in general state space
M. T. CHAO AND JAMES C. FU. The reliability of a large series system under Markov structure
RHONDA RIGHTER AND SUSAN H. XU. Scheduling jobs on non-identical IFR processors to minimize general cost functions
CHENG-SHANG CHANG, RANDOLPH NELSON AND MICHAEL PINEDO. Scheduling two classes of exponential jobs on parallel processors: structural results and worst-cost analysis
WIM M. NAWIJN. On a random interval graph and the maximum throughput rate in the system $GI/G/1/0$
WEN-JANG HUANG AND PREM S. PURI. A queueing process with the possibility of customers becoming servers

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The Annals of Applied Probability

Vol. 1

August 1991

No. 3

Special Invited Paper

Loss networks F. P. KELLY

Articles

- Diffusion approximation in past dependent models and applications to option pricing
PAOLO KIND, ROBERT SH. LIPTSER AND WOLFGANG J. RUNGGLADIER
- On the distribution of leaves in rooted subtrees of recursive trees
HOSAM M. MAHMOUD AND R. T. SMYTHE
- Inventory models with continuous, stochastic demands SIDNEY BROWNE AND PAUL ZIPKIN
- A limit result respecting graph structure for a fully connected loss
network with alternative routing J.-P. CRAMETZ AND P. J. HUNT
- Pseudolikelihood for exponential family models of spatial point processes
JENS LEDET JENSEN AND JESPER MØLLER
- A new class of random number generators GEORGE MARSAGLIA AND ARIF ZAMAN

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November 1991

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Articles

- A mean field limit for a lattice caricature of dynamic routing in circuit switched networks
V. ANANTHARAM
- Estimating variance from high, low and closing prices L. C. G. ROGERS AND S. E. SATCHELL
- Some limit theorems on distributional patterns of balls in urns
SAMUEL KARLIN AND MING-YING LEUNG
- On the functional central limit theorem for the Ewens sampling formula
PETER DONNELLY, THOMAS G. KURTZ AND SIMON TAVARÉ
- Departures from many queues in series PETER W. GLYNN AND WARD WHITT
- A branching random walk with a barrier
J. D. BIGGINS, BORIS D. LUBACHEVSKY, ADAM SHWARTZ AND ALAN WEISS
- Nonlinear regression of stable random variables
CLYDE D. HARDIN, JR., GENNADY SAMORODNITSKY AND MURAD S. TAQQU
- On the ergodicity of TAR(1) processes RONG CHEN AND RUEY S. TSAY

All correspondence and submissions for the *Annals of Applied Probability* should be directed to:

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Papers should be submitted in quadruplicate, and authors are encouraged to follow the familiar editorial conventions of the two other *IMS Annals*. In addition to welcoming papers in all the traditional areas of applied probability, the new *Annals* particularly hopes to attract work that develops and deepens the interplay of probability and the fields of computer science, finance, network modeling, and biology.

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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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