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which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.

Advances now includes a section devoted to stochastic geometry and statistical applications (see the announcement and call for papers in the March 1993 issue).

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 26 No. 1 of *Advances* contains the following papers:

Stochastic Geometry and Statistical Applications
E. B. VEDEL JENSEN AND K. KIÊU. Unbiased stereological estimation of d-dimensional volume in $\mathbb{R}^n$ from an isotropic random slice through a fixed point
K. J. WORSLEY. Local maxima and the expected Euler characteristic of excursion sets of χ^2, F and t fields
THOMAS H. SCHEIKE. Anisotropic growth of Voronoi cells
RICHARD COWAN AND ALBERT K. I. TSANG. The falling-leaves mosaic and its equilibrium properties
O. E. BARNDORFF-NIELSEN. A note on electrical networks and the inverse Gaussian distribution

General Applied Probability
P. K. POLLETT AND D. E. STEWART. An efficient procedure for computing quasi-stationary distributions of Markovs chains with sparse transition structure
CATHERINE BOUTON AND GILLES PAGÈS. Convergence in distribution of the one-dimensional Kohonen algorithms when the stimuli are not uniform
ALLEN L. ROGINSKY. A central limit theorem for cumulative processes
STEPHEN L. RATHBUN AND NOEL CRESSIE. Asymptotic properties of estimators for the parameters of spatial inhomogeneous Poisson point processes
PANAYOTIS D. SPARAGGIS, DON TOWSLEY AND CHRISTOS G. CASSANDRAS. Sample path criteria for weak majorization
Z. KHALIL AND B. DIMITROV. The service time properties of an unreliable server characterize the exponential distribution
M. AEBI, P. EMBRECHTS AND T. MIKOSCH. Stochastic discounting, aggregate claims, and the bootstrap
JIE MI. Burn-in and maintenance policies
ZHEN LIU AND DON TOWSLEY. Stochastic scheduling in in-forest networks
WŁADYSŁAW SZCZOTKA AND KRZYSZTOF TOPOLSKI. Conditioned limit theorems for the difference of waiting time and queue length
DIMITRIOS G. PANDELIS AND DEMOSTHENIS TENEKETZIS. Optimal multiserver stochastic scheduling of two interconnected priority queues

Subscription rates (per volume) for the *Advances* in 1993 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 US, UK and Australian banks will be acceptable: they should be made payable to *Applied Probability*, and sent to:

Executive Editor, Applied Probability,
School of Mathematics and Statistics,
The University, Sheffield S3 7RH, UK

New publication for 1994

Studies in Applied Probability

We are pleased to announce the forthcoming publication of *Studies in Applied Probability*, a Festschrift in honour of Lajos Takács, one of the most versatile and original contributors to the theory of stochastic processes. Thirty-nine internationally known authors have contributed 26 papers reflecting Lajos Takács' wide-ranging influence on applied probability in its widest sense. The book is divided into six parts containing papers on epidemic processes, probabilistic methods, queueing theory, random walks, statistical studies and stochastic processes.

This book will be of interest to research workers specializing in statistical studies, operations research, computer engineering, telecommunications and epidemiology.

The contributors to this volume are:
Alejandro D. de Acosta, Mátyás Arató, U. Narayan Bhat, Simeon M. Berman, N.H. Bingham, W. Böhm, Yuan S. Chow, J.W. Cohen, Endre Csáki, D. J. Daley, Persi Diaconis, Jewgeni H. Dshalalow, Janos Galambos, J. Gani, Joseph Glaz, Peter W. Glynn, C.C. Heyde, J. Keilson, Min-Young Lee, Gérard Letac, Norihiko Miyawaki, S.G. Mohanty, Richard E. Nance, Joseph Naus, M.F. Neuts, N.U. Prabhu, András Prékopa, Ron Pyke, Malgorzata Roos, L.D. Servi, Mehrdad Shahshahani, Masaaki Sibuya, Donatas Surgailis, Ushio Sumita, Ryszard Syski, L.C. Tang, Sylvan Wallenstein, Ward Whitt and Wojbor A. Woyczynski.

This book also includes an appreciation of Lajos Takács and a complete list of his publications to date.

Studies in Applied Probability (Journal of Applied Probability Special Volume 31A). Edited by J. GALAMBOS AND J. GANI ISBN 0-902016-04-0 240 × 170 mm hardback. c. 400pp. Illustrated. Available June 1994.
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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

Papers submitted to the Applied Probability journals 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 not to accept for publication papers which cannot appear in print within 15 months of the date of receipt of the final version. Fifty reprints of each paper will be provided free; additional reprints are available 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. Please supply *three* double-spaced hard copies, at least one of which should be printed on one side of the paper only. The paper should include: (1) a short abstract of approximately 4–10 lines giving a non-mathematical description of the subject matter and results; (2) list of keywords detailing the contents for the purpose of computerised information retrieval; (3) primary and secondary classifications according to 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 free of charge from the Applied Probability Office.

For efficiency in processing, authors are requested to send all submissions to the Applied Probability Office in Sheffield, rather than to individual editors. The address for all submissions is:

Executive Editor, Applied Probability, School of Mathematics and Statistics,
The University, Sheffield S3 7RH, UK.

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