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in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.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 24 No. 4 of *Advances* contains the following papers:

INTERNATIONAL CONFERENCE ON RANDOM MAPPINGS, PARTITIONS AND PERMUTATIONS, Los Angeles, 3–6 January 1992
ANTHONY G. PAKES. Limit theorems for the numbers of rare mutants: a branching process model
PABLO A. FERRARI, SERVET MARTINEZ AND PIERRE PICCO. Existence of non-trivial quasi-stationary distributions in the birth–death chain
JESPER MOLLER. Random Johnson–Mehl tessellations
THOMASZ ŁUCZAK AND JOEL E. COHEN. Giant components in three-parameter random directed graphs
T. LEHTONEN AND H. NYRHINEN. Simulating level-crossing probabilities by importance sampling
P. K. POLLETT AND A. VASSALLO. Diffusion approximations for some simple chemical reaction schemes
MOSHE SHAKED AND J. GEORGE SHANTHIKUMAR. Optimal allocation of resources to nodes of parallel and series systems
SUSAN H. XU. On a job resequencing issue in parallel processor stochastic scheduling
W. HENDERSON, C. E. M. PEARCE AND P. K. POLLETT. Connecting internally balanced quasi-reversible Markov processes
ALAIN JEAN-MARIE AND ZHEN LIU. Stochastic comparisons for queueing models via random sums and intervals
PAUL E. WRIGHT. Two parallel processors with coupled inputs

Subscription rates (per volume) for the *Advances* in 1992 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 U.S., U.K. and Australian banks will be acceptable: they should be made payable to *Applied Probability*, and sent to:

CALL FOR PAPERS

Temple University — National Institute on Standards and Technology

Conference on Extreme Value Theory and its Applications, Gaithersburg, Maryland, USA, 2–7 May 1993

Extreme value theory is a significant component of probability and statistics. Important new research is being done, and the percentage of literature devoted to the subject continues to grow. Extreme values control design and policy decisions in a large variety of technological and scientific fields. To assure adequate safety levels, land, ocean, and air or space structures must be designed to withstand the effects of extreme loads, and materials and systems used in such structures must exceed certain minimum (extreme) performance levels. Pollutant levels that may be tolerable on the average may attain extremes whose effects would be unacceptable. The conference will promote the transfer of advances made in the *theory* of extreme values to *applications*, and promote an exchange of ideas among researchers from a broad spectrum of centers of technical work.

The conference will include multiple sessions in the areas of *theory of extremes*, and applications in the areas of *materials sciences*, *civil engineering/infrastructure* and *environmental sciences*.

Organizing committee

Janos Galambos (*Temple University*), James Pickands (*University of Pennsylvania*), Grace Yang (*University of Maryland*), Emil Simiu (*NIST*), James Lechner (*NIST*), Stefan Leigh (*NIST*).

Current speakers

Theory of extremes: Simeon Berman, Herbert A. David, Paul Deheuvels, Michael Falk, Janos Galambos, Yvette Gomes, Laurens de Haan, Jürg Hüsler, Ross Leadbetter, David Mason, James Pickands, Rolf Dieter Reiss, Sidney Resnick, Richard Smith. *Materials sciences*: Toshio Shibata, Subra Suresh, Howard Taylor. *Civil engineering/ infrastructure*: Enrique Castillo, Ross Corotis, Mircea Grigoriu, Emil Simiu. *Environmental sciences*: Philip Hopke, Robert Harriss.

You are welcome to submit a paper in the areas listed above. All papers will be refereed. Papers must be double spaced and no longer than 15 pages including figures and tables. Submissions are to be received no later than 1 March 1993. The registration fee for the conference is $325.00.

For information contact: Stefan Leigh, Admin A337, NIST, Gaithersburg, MD 20899, USA. Telephone: 301-975-2856, fax: 301-990-4127, e-mail: leigh@tiber.nist.gov

Submit papers to: Janos Galambos, Chairman Program Committee, Admin A337, NIST, Gaithersburg, MD 20899, USA.

THE MATHEMATICAL SCIENTIST (TMS)

This publication 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. 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 editorial board:

Each volume consists of two issues distributed in June and December, totalling approximately 128 pages. Volume 18 (1993) costs £8.50 (US$15.00, $A19.75). It will include the following contributions:

Confidence intervals for the ratio of two Poisson means, by Hardeo Sahai and Anwer Kurshid

Random minima scheme and carcinogenic risk estimation, by Svetlozar T. Rachev and Andrej Yu. Yakovlev

Minimum information probability models with applications to correlation, by Evan J. Williams

Approximations of differentiable functions and their derivatives on compact sets by neural networks, by Yoshifusa Ito

Optimal betting allocations, by E. G. Enns and D. D. Tomkins

Enumeration of rooted trees and forests, by L. Takács

On the presentation of evidence, by D. V. Lindley

Orders and requests for further information should be sent to

> Executive Editor, Applied Probability,
> Department of Probability and Statistics,
> The University, Sheffield S3 7RH, England.

SUBSCRIPTION RATES

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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