

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models can be usefully developed, and finally, (4) papers in Applied Probability presented at conferences which do not publish their proceedings.

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.

The Editorial Board consists of E. Sparre Andersen, V. D. Barnett, D. Blackwell, V. R. Cane, J. W. Cohen, B. Gnedenko, E. J. Hannan, C. C. Heyde, J. Keilson, D. G. Kendall, J. F. C. Kingman, K. Krickberg, R. M. Loynes, P. A. P. Moran, J. Neveu, K. R. Parthasarathy, N. U. Prabhu, R. Pyke, C. A. B. Smith and L. Takács. The Editor-in-Chief is J. Gani, and the Editorial Office of the *Advances* is in the Department of Probability and Statistics. The University, Sheffield S3 7RH, England.

Volume 13 No. 4 of *Advances* contains the following papers:

W. A. O'N. WAUGH. Application of the Galton-Watson process to the kin number problem
MARTIN HÄRNQVIST. Limit theorems for point processes generated in a general branching process

ELJA ARJAS AND PRISCILLA GREENWOOD. Competing risks and independent minima: a marked point process approach

ANTHONY G. PAKES AND SIMON TAVARÉ. Comments on the age distribution of Markov processes

HAROLD RUBEN. The lifetimes of configuration states in statistical physics

A. D. BARBOUR AND R. SCHAßBERGER. Insensitive average residence times in generalized semi-Markov processes

A. D. BARBOUR. Brownian motion and a sharply curved boundary

WILLIAM F. EDDY AND JAMES D. GALE. The convex hull of a spherically symmetric sample

P. WHITTLE. Risk-sensitive linear/quadratic/Gaussian control

YOUSRI M. EL-FATTAH. Gradient approach for recursive estimation and control in finite Markov chains

M. E. THOMPSON. Estimation of the parameters of a semi-Markov process from censored records

A. J. LAWRENCE AND P. A. W. LEWIS. A new autoregressive time series model in exponential variables (NEAR(1))

DAVID Y. BURMAN. Insensitivity in queueing systems

Subscription rates (per volume) for the *Advances* in 1981 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:

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

ESSAYS IN STATISTICAL SCIENCE

In July 1982 the Applied Probability Trust will be issuing a supplementary volume No. 19A of the *Journal of Applied Probability* (JAP). Entitled *Essays in Statistical Science*, this book of approximately 450 pages will consist of a collection of papers on a range of topics including statistical theory, stochastic processes, time series, geometrical probability and mathematical genetics. It is being published as a Festschrift in honour of the sixty-fifth birthday of Professor P. A. P. Moran FAA, FRS, of the Department of Statistics, Australian National University, Canberra, an editor of JAP since its first volume in 1964.

The editors of the special volume are J. Gani and E. J. Hannan; contributions are expected from the following colleagues and students of Professor Moran: M. S. Bartlett, B. Benjamin, V. Cane, H. Cohn, D. J. Daley, H. E. Daniels, A. W. Davis, P. Erdős, W. J. Ewens, P. D. Finch, J. Gani, J. M. Hammersley, E. J. Hannan, A. M. Hasofer, C. R. Heathcote, C. C. Heyde, D. G. Kendall, J. F. C. Kingman, R. McNamee, D. R. McNeil, R. J. Maillardet, R. E. Miles, B. H. Neumann, M. Osborne, D. K. Pickard, D. Pollard, B. C. Rennie, E. L. Scott, E. Seneta, C. A. B. Smith, D. Vere-Jones, I. Vincze, G. S. Watson, G. A. Watterson, M. Westcott, P. Whittle, E. J. Williams and S. R. Wilson.

Essays in Statistical Science will be in the usual JAP format (250 × 170 mm) but will have an attractive dust jacket and hard binding. The price will be £15.00 (US\$36.00; \$A.31.00) for all subscribers if ordered before 31 July 1982; thereafter the price will be £18.00 (US\$43.00; \$A.37.00). Advance orders may be placed now. Please send your name, address and remittance (payable to 'Applied Probability') to Executive Editor, Applied Probability, Department of Probability and Statistics, The University, Sheffield S3 7RH, England. Regular subscribers to JAP may prefer to order Volume 19A at the same time as Volume 19 (1982), or through their subscription agents.

PERSPECTIVES IN PROBABILITY AND STATISTICS

Papers in honour of M. S. Bartlett on the occasion of his sixty-fifth birthday

Editor: J. GANI

Contributors

P. Armitage	H. Cramér	A. M. Kshirsagar	L. Takács
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D. R. Cox	J. F. C. Kingman	H. Solomon	

Pp. viii + 423

This book was published by the Applied Probability Trust in 1975 as a tribute to Professor Bartlett from colleagues throughout the world. Due to difficulties in storing the remaining stock, we are now making copies available to our readers and subscribers at only £3.50 (US\$7.00; \$A.6.00) to cover administrative costs, postage and packing. Please order your copy now from

Applied Probability Office,
Department of Probability and Statistics,
The University,
Sheffield S3 7RH, England.

Remittances to 'Applied Probability', please.

'.... there is variety and imagination in this volume. Through their enthusiasm and ingenuity these 30 authors have provided a fitting tribute to a master.'

David Hinkley in *Science*

'The text is a delight to read, and several of the papers are gems in their own right. it contains many stimulating ideas for potential research students.'

Eric Renshaw in *British Book News*

'.... there are substantial original contributions and magisterial summaries of important areas of knowledge. The volume is a pleasure to browse in. It has benefitted from careful editing and production.'

John Hajnal in *JRSS A*

ANNOUNCEMENT OF A CONFERENCE

INTERNATIONAL INSTITUTE ON STOCHASTICS AND OPTIMIZATION

To be held from 1 to 10 September 1982 at Gargnano (Lake of Garda, Northern Italy) at the Villa Feltrinelli of the University of Milan

Probabilistic and statistical tools are becoming increasingly important in the design and analysis of algorithms for optimization through the modeling of the problem, the design of the algorithm and the analysis of the performance of the algorithm. This Institute is being organized to promote the exchange of ideas among the areas of involvement of stochastics in the context of optimization. Examples of the more specialized topics to be included are:

- 1) poisson point processes, gaussian processes, probabilistic graph theory, euclidean functionals, 'ad hoc' order statistics;
- 2) 'monte-carlo' methods, sampling methods, bayesian methods, stochastic quasi-gradient methods, the class RP, random number generators;
- 3) probabilistic analysis of heuristics for NP-hard problems, quasi-enumerative methods, distributed algorithms, elementary algorithms, stochastic programming heuristics, global optimization methods, and probabilistic algorithms.

The proceedings, which will be published, will include invited survey lectures, contributed lectures, and discussion sessions.

LOCAL ORGANIZING COMMITTEE. F. Archetti (Univ. of Milan), M. Cugiani (Univ. of Milan), F. Maffioli (Milan Polytechnic).

SCIENTIFIC COMMITTEE. G. Ausiello (Univ. of Rome); B. Betrò (I.A.M.I.); L. C. W. Dixon (Hatfield Polytechnic); F. Giannessi (Univ. of Pisa); J. K. Lenstra (Mathematisch Centrum, Amsterdam); M. Lucertini (Univ. of Rome); J. Mockus (Academy of Science, Vilnius, USSR); A. H. G. Rinnooy Kan (Erasmus Univ., Rotterdam); B. Simeone (Univ. of Rome); G. P. Szegő (Univ. of Bergamo).

INVITED SPEAKERS. G. Baudet (INRIA, France); V. Chvátal* (McGill Univ., Montreal, Canada); L. C. W. Dixon (Hatfield Polytechnic, UK); R. M. Karp (Univ. of California at Berkeley, USA); Y. Ermoliev (I.I.A.S.A. and Academy of Sciences, Kiev, USSR); J. K. Lenstra (Mathematisch Centrum, Amsterdam, Netherlands); C. McDiarmid* (Univ. of Oxford, UK); J. Mockus (Academy of Science, Vilnius, USSR); C. Papadimitrou* (Univ. of Athens, Greece); M. Rabin* (Hebrew Univ., Jerusalem, Israel); A. H. G. Rinnooy Kan (Erasmus Univ., Rotterdam, Netherlands); M. Steele (Stanford Univ., USA); B. Weide* (Ohio State Univ., USA).

(*) to be confirmed.

SPONSORS. Department of Electronics, Milan Polytechnic, Italy; Department of Mathematics, University of Milan, Italy; Istituto per le Applicazioni della Matematica e dell' Informatica (I.A.M.I.) Milan, Italy.

FEES. U.S. \$250 including lecture notes, coffees, lunches and social events. Reduced fees are available for early registration and for those with financial difficulties.

ADDRESS FOR FURTHER INFORMATION. Dr M. G. Speranza, International Institute on Stochastics and Optimization, c/o IAMI, Via Cicognara 7, 20129 Milan, Italy.

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 send three copies of their submissions to the Applied Probability office in Sheffield. If authors consider their papers are in the particular field of expertise of one of the editors listed on the inside front cover, they may submit two copies of the paper to the editor concerned. One copy, with a copy of the covering letter, should then be sent to the Applied Probability office in Sheffield so that complete records can be kept there. Authors overseas are asked to ensure that their submissions are sent by airmail. The Editor-in-Chief and the Applied Probability office are in direct contact by telex and full details of all papers submitted to Sheffield are available to Professor Gani in Lexington.

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