

PERSPECTIVES IN PROBABILITY AND STATISTICS

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

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This book, to be published in the spring of 1975, is an affectionate tribute to Professor M. S. Bartlett from 30 colleagues in Britain, Europe, North America, India, Australia and New Zealand. It honours both the man and his fundamental contributions to probability and statistics. Bartlett's breadth and versatility in these fields over the past 40 years are reflected in the variety of subjects touched upon by the authors; their papers include a historical introduction, studies in probability theory, statistical theory, mathematical methods in probability and statistics, stochastic processes and inference on such processes, probability models in the physical and social sciences, and finally some surveys in biomathematics and epidemiology.

In their papers, the contributors have acknowledged their scientific and personal indebtedness to Bartlett as a teacher and colleague.

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either directly or through a bookseller.

A BIBLIOGRAPHY ON ALGORITHMIC METHODS IN PROBABILITY

A bibliography of papers discussing algorithmic methods in probability or containing significant information on the computational aspects of probability models is currently being compiled by Professor Marcel F. Neuts of Purdue University.

He would deeply appreciate receiving preprints and reprints of any such papers at the following address:

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FOURTH INTERNATIONAL SYMPOSIUM ON MULTIVARIATE ANALYSIS

The Fourth International Symposium on Multivariate Analysis will be held at Wright State University, Dayton, Ohio, U.S.A. during the period 16–21 June 1975. This symposium, as the earlier ones, is sponsored by the Aerospace Research Laboratories. The symposium will be dedicated to the memory of the late H. Hotelling and P.C. Mahalanobis. It is expected that several distinguished workers in the field will present invited papers in the areas of classification and pattern recognition, contingency tables, design of experiments, distribution theory, econometrics, growth curves, inference, reliability, information and control theory, prediction theory, psychometrics, statistical physics, stochastic problems in hydrology and meteorology, time series and stochastic processes, and various other topics on theory and applications. The list of persons who have already either accepted the invitations or indicated tentative acceptance to present papers includes: A. V. Balakrishnan, R. C. Bose, H. Chernoff, S. Das Gupta, D. A. S. Fraser, Y. Fujikoshi, C. W. Helstrom, T. Hida, M. G. Kendall, J. Kiefer, T. Kailath, G. Kallianpur, A. M. Kshirsagar, F. M. Lord, K. V. Marida, D. Middleton, E. Parzen, M. L. Puri, C. R. Rao, M. M. Rao, M. Rosenblatt, Yu. A. Rozanov, M. Siotani and H. Theil. Several other prominent workers in the field are expected to present invited papers. A tentative and partial list of the chairmen of the sessions includes: R. L. Anderson, S. Geisser, H. L. Harter, E. Lukacs, I. Olkin and J. N. Srivastava.

Attendance at the symposium is open to anyone interested. The chairman of the local arrangements committee is C. C. Maneri. Further details regarding the symposium may be obtained by contacting P. R. Krishnaiah (Symposium Chairman), ARL/LB, Building 450, Aerospace Research Laboratories, Wright-Patterson Air Force Base, Ohio, 45433, U.S.A.

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, D. Blackwell, V. R. Cane, J. W. Cohen, B. Gnedenko, J. Hájek, E. J. Hannan, C. C. Heyde, J. Keilson, D. G. Kendall, J. F. C. Kingman, K. Krickeberg, 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 7 No. 1 of *Advances* contains the following papers:

SYMPOSIUM ON MATHEMATICAL GENETICS, SUSSEX, 26–27 March 1974

ANDREW D. BARBOUR	The asymptotic behaviour of birth and death and some related processes
M. AKSLAND	A birth, death and migration process with immigration
INGE S. HELLAND	The condition for extinction with probability one in a birth, death and migration process
N. H. BINGHAM AND R. A. DONEY	Asymptotic properties of supercritical branching processes II: Crump-Mode and Jirina processes
O. MACCHI	The coincidence approach to stochastic point processes
RICHARD F. SERFOZO	Functional limit theorems for stochastic processes based on embedded processes
DAVID A. SWICK	Asymptotic distribution of a discrete transform of an arbitrarily sampled homogeneous random field
N. U. AHMED AND K. L. TEO	Optimal control of stochastic Ito differential systems with fixed terminal time
DAVID GRIFFEATH	Ergodic theorems for graph interactions
GARY LEE GUTHRIE AND PAUL T. HOLMES	On record and inter-record times for a sequence of random variables defined on a Markov chain
A. L. TRUSLOVE	Queue length for the $E_k/G/1$ queue with finite waiting room

Subscription rates (per volume) for *Advances* in 1975 will be the same as for the *Journal*, namely:

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Also available: Proceedings of the WHO SYMPOSIUM ON QUANTITATIVE EPIDEMIOLOGY (Moscow, November 1970); reprinted from the *Advances in Applied Probability*, Vol. 3. The price per copy is £0.50 (U.S.\$1.25; \$A. 1.00).

It is essential that all orders are accompanied by a remittance, payable to *Applied Probability*.

Mathematical Spectrum

A Magazine of Contemporary Mathematics

This magazine addresses itself primarily to young mathematicians in schools, colleges of education, and universities. Its object is to discuss the entire range of modern mathematical disciplines (pure mathematics, applied mathematics, statistics, operational research, computing science, biomathematics) in an informative but informal manner and to relate discoveries in mathematics to progress in the natural sciences, technology, social studies, and business management.

The Editors believe that the process of learning is a dialogue, and consequently they wish to promote active participation by readers. Correspondence on any subject relating to mathematics and mathematical education is welcomed. There is also a problem section, and readers are encouraged to submit their solutions, the best of which are published.

Volume 7 (1974/75) includes the following articles.

A. B. Tayler	The sweep of a logging truck
N. A. Draim	The divergence of the simple harmonic series
T. J. Fletcher	Some remarks on Blow's game
J. Howlett	J. Babbage and his computer
N. A. J. Hastings	Dynamic programming
D. J. Roaf	English church bellringing
C. Cannings	Certain graphs arising in genetics

For further information application should be made to

Editor — Mathematical Spectrum, Hicks Building,
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Mathematical Spectrum is published by the Applied Probability Trust.

Subscription rates

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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 and orders for back numbers 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. The copyright of all published papers shall be vested in 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 their date of submission. 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.

Manuscripts should be written in English or French; manuscripts 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*. Authors are requested to comply with the following instructions in submitting their papers:

Authors in Britain, Europe, 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 one 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.

Journal conventions

It will be of help to the Editors if the following conventions are adopted:

- a) The manuscript should be typewritten, using double spacing, on one side of the paper only.
- b) Each paper submitted 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.
- c) References should be indicated in the text by the name of the author(s) and the date, thus: Feller (1961), and the full references listed at the end of the article in alphabetical order. Journal references should include the title of the article cited, the title of the journal (abbreviated in the style of the *International Journal of Abstracts: Statistical Theory and Method*), the volume, and inclusive page numbers. Book references should give the full title, the publisher, and the place of publication. For example:

Feller, W. (1961) A simple proof of renewal theorems. *Comm. Pure Appl. Math.* **14**, 285–293.

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- e) Indices and subscripts should be clearly distinguished, using the marking $\overset{\downarrow}{4}$, $\overset{\uparrow}{4}$ where necessary.

Authors will receive only first proofs for correction; charges will be made for excessive alteration to these.

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