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STATISTICAL SCIENCE

a review journal of the institute of mathematical statistics

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On the occasion of its fiftieth anniversary, the Institute of Mathematical Statistics announces publication of *Statistical Science*, a new quarterly review journal in statistics and probability. *Statistical Science* will present the full range of contemporary statistical thought at a modest technical level accessible to the broad community of practitioners, teachers, researchers, and students in statistics and probability.

Featuring in early issues

D.A. Freedman & W.C. Navidi, "Regression models for adjusting the 1980 census" with discussion by J.B. Kadane, E.P. Ericksen, A.P. Dempster, K.M. Wolter, A. Madansky, I.P. Fellegi, L.E. Moses, and G. Nathan

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B. Efron & R. Tibshirani, "The bootstrap method for assessing statistical accuracy" with discussion by J. A. Hartigan

R. A. Thisted, "Computing environments for data analysis" with discussion

P. C. Fishburn, "The axioms of subjective probability" with discussion

F. L. Bookstein, "Size and shape spaces for landmark data in two dimensions" with discussion by D. G. Kendall, N. Cressie, P. D. Sampson, G. Campbell, and C. Goodall

Interviews with David Blackwell, T. W. Anderson, Erich Lehmann, Persi Diaconis, and Charles Stein

- discussions of methodological and theoretical topics of current interest and importance,
- surveys of substantive research areas with promising statistical applications,
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- interviews with distinguished statisticians probabilists.

Statistical Science joins the Institute's distinguished journals, *The Annals of Statistics* and *The Annals of Probability*, in February 1986 and is included as a privilege of membership. Nonmember subscriptions are available to individuals and organizations. All subscriptions to the *Annals* include a subscription to *Statistical Science* for 1986. For additional information on how to receive *Statistical Science*, please write to the IMS Business Office.

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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.

The Editor-in-Chief is J. Gani; the Coordinating Editors are C. C. Heyde, M. F. Neuts and G. E. H. Reuter; other editors are P. J. Brockwell, V. R. Cane, J. W. Cohen, E. J. Hannan, J. Keilson, D. G. Kendall, J. F. C. Kingman, K. Krickeberg, R. M. Loynes, K. R. Parthasarathy, C. A. B. Smith, and R. L. Tweedie. The Editorial Office of the *Advances* is in the Department of Probability and Statistics, The University, Sheffield S3 7RH, England.

Volume 17 No. 4 of *Advances* contains the following papers:

USHIO SUMITA AND MASAOKI KIJIMA. The bivariate Laguerre transform and its applications: numerical exploration of bivariate processes

LOTHAR HEINRICH AND VOLKER SCHMIDT. Normal convergence of multidimensional shot noise and rates of convergence

NORMAN KAPLAN AND THOMAS DARDEN. The behavior of the ratio of a small-noise Markov chain to its deterministic approximation

T. K. SHENG. The distance between two random points in plane regions

P. WAKSMAN. Plane polygons and a conjecture of Blaschke's

CHARLES M. NEWMAN AND YOSEF RINOTT. Nearest neighbors and Voronoi volumes in high-dimensional point processes with various distance functions

JÜRGEN FRANKE. ARMA processes have maximal entropy among time series with prescribed autocovariances and impulse responses

DOMINIQUE PICARD. Testing and estimating change-points in time series

V. V. KALASHNIKOV AND S. T. RACHEV. Characterization problems in queueing and their stability

PER HOKSTAD. Relations for the workload of the $GI/G/s$ queue

Subscription rates (per volume) for the *Advances* in 1985 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 TIME SERIES AND ALLIED PROCESSES

In January 1986 the Applied Probability Trust will publish a supplementary volume 23A of the *Journal of Applied Probability* (JAP) to mark the sixty-fifth birthday of Professor E. J. Hannan, an editor of the Journal since its inception in 1964. Entitled *Essays in Time Series and Allied Processes*, this book will consist of papers relating to various aspects of time series, Professor Hannan's main area of research. The seven sections will be devoted to: structure and general methods, estimation, hypothesis testing and distribution theory, non-linear and non-stationary systems, random fields and point processes, allied stochastic processes, and algorithms and computations.

This special volume, which is edited by J. Gani and M. B. Priestley, contains contributions from the following colleagues and students of Professor Hannan:

An Hong-Zhi	J. Henstridge	M. R. Osborne	G. K. Smyth
C. F. Ansley	S. M. Heravi	T. Ozaki	V. Solo
M. S. Bartlett	C. C. Heyde	E. Parzen	T. P. Speed
P. Bloomfield	Y. Hosoya	J. H. W. Penm	K. Tanaka
D. R. Brillinger	R. H. Jones	M. B. Priestley	R. D. Terrell
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M. Deistler	P. A. P. Moran	P. M. Robinson	J. G. Veitch
J. Durbin	D. F. Nicholls	M. Rosenblatt	G. S. Watson
J. Gani	Y. Ogata	R. Shibata	P. Whittle

A complete bibliography of Professor Hannan's publications from 1955 to 1984 will be included.

Essays in Time Series and Allied Processes will be in the usual JAP format (250 × 170 mm) with 437 pages, but will have hard binding and an attractive dust jacket. The price is £30.00 (US\$35.00; \$A.43.00).

Orders, preferably accompanied by a remittance, should be sent to the Executive Editor, Applied Probability, Department of Probability and Statistics, The University, Sheffield S3 7RH, England. Payments must be in favour of 'Applied Probability': sterling cheques should be drawn on a British bank, US or Australian dollar cheques on a US or Australian bank respectively.

Volume 22 Number 4

Research Papers

- 747 W. G. S. HINES AND JOHN HAIGH. Non-linear ESS models and polymorphism
757 K. V. MITOV AND N. M. YANEV. Bellman–Harris branching processes with state-dependent immigration
766 NORBERT HERRNDORF. First-passage percolation processes with finite height
776 M. YADIN AND S. ZACKS. The visibility of stationary and moving targets in the plane subject to a Poisson field of shadowing elements
787 GARY GOTTLIEB. An optimal betting strategy for repeated games
796 JONATHAN KUHN. The risk-sensitive homing problem
804 J. GANI AND PYKE TIN. On a class of continuous-time Markov processes
816 PAUL DEHEUVELS. The limiting behaviour of the maximal spacing generated by an i.i.d. sequence of Gaussian random variables
828 J. CHANDRAMOHAN AND LUNG-KUANG LIANG. Bernoulli, multinomial and Markov chain thinning of some point processes and some results about the superposition of dependent renewal processes
836 TAMÁS F. MÓRI AND GÁBOR J. SZÉKELY. A note on the background of several Bonferroni–Galambos-type inequalities
844 A. GRAVEY. A simple construction of an upper bound for the mean of the maximum of n identically distributed random variables
852 G. HOOGHIEMSTRA AND M. KEANE. Calculation of the equilibrium distribution for a solar energy storage model
865 SHLOMO HALFIN. The shortest queue problem
879 MICHAEL RUBINOVITCH. The slow server problem: a queue with stalling
893 HERMANN THORISSON. On regenerative and ergodic properties of the k -server queue with non-stationary Poisson arrivals
903 V. GIORNO, C. NEGRI AND A. G. NOBILE. A solvable model for a finite-capacity queueing system
912 J. GEORGE SHANTHIKUMAR AND USHIO SUMITA. On the busy period distributions of $M/G/1/K$ queues with state-dependent arrivals and FCFS/LCFS-P service disciplines

Short Communications

- 920 R. HÖPFNER. A note on the probability of extinction in a class of population-size-dependent Galton–Watson processes
926 Z. ŞEYDA DELİGÖNÜL. An approximate solution of the integral equation of renewal theory
932 G. S. DAVIES. A note on a continuous-time Markov manpower model
939 DAVID D. YAO. First-passage-time moments of Markov processes
946 JAN VRBIK. Asymptotic distribution of the coefficient of cross-association based on a simple Markov-chain model
951 J. B. T. M. ROERDINK. A note on the asymptotic properties of correlated random walks
957 IAN B. MACNEILL AND V. K. JANDHYALA. The residual process for non-linear regression
964 C. PARK. Boundaries with negative jumps for the Brownian motion
971 CHUNG-WEN CHOW AND ZVI SCHECHNER. On stopping rules in proofreading
978 OLE PLATZ. A sharp upper probability bound for the occurrence of at least m out of n events
982 WILLIAM S. GRIFFITH AND C. SRINIVASAN. A note on survival models under a Markov process
989 P. R. KUMAR AND J. WALRAND. Individually optimal routing in parallel systems
996 Letter to the editor
997 Correction
998 Index

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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, 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

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 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.

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 Gani at the University of California at Santa Barbara.

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