JOURNAL OF APPLIED PROBABILITY

VOLUME 34 NUMBER 1 MARCH 1997



EDITOR-IN-CHIEF C. C. HEYDE FOUNDING EDITOR (1964–1989) J. GANI

JOURNAL OF APPLIED PROBABILITY

This is an international journal published by the Applied Probability Trust in association with the London Mathematical Society; it contains research papers and notes on applications of probability theory to the biological, physical, social and technological sciences. An annual volume of approximately 1000 pages is published in four issues appearing in March, June, September and December.

EDITORIAL BOARD

Editor-in-Chief C. C. HEYDE (Columbia University and Australian

National University)

N. H. BINGHAM (University of London) **Coordinating Editors**

M. F. NEUTS (University of Arizona)

R. J. ADLER (Technion, Haifa) **EDITORS**

A. J. BADDELEY (University of Western Australia)

A. D. BARBOUR (University of Zurich)

P. BRÉMAUD (Ecole Polytechnique, Palaiseau)

C. CANNINGS (University of Sheffield)

E. CINLAR (Princeton University)

P. J. DONNELLY (University of Oxford)

P. EMBRECHTS (ETH, Zurich)

A. HORDIJK (University of Leiden)

S. JANSON (Uppsala University)

I. KARATZAS (Columbia University)

D. G. KENDALL (University of Cambridge)

G. KERSTING (University of Frankfurt)

J. F. C. KINGMAN (University of Bristol)

C. M. NEWMAN (Courant Institute, New York)

K. R. PARTHASARATHY (Indian Statistical Institute,

New Delhi)

S. I. RESNICK (Cornell University)

R. L. SMITH (University of Cambridge)

J. L. TEUGELS (Catholic University, Louvain)

D. VERE-JONES (University of Wellington)

W. WHITT (AT&T Bell Laboratories, Murray Hill, NJ)

P. WHITTLE (University of Cambridge)

EDITORIAL OFFICE

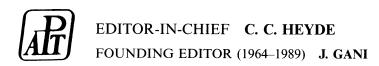
Executive Editor LINDA J. NASH (University of Sheffield) STEPHEN WEBB (University of Sheffield) Technical Editor

All correspondence relating to the submission of papers should be sent to: Executive Editor, Applied Probability, School of Mathematics and Statistics, The University, Sheffield S3 7RH, UK. Subscription rates and notes for contributors are to be found on the inside back cover.

JOURNAL OF APPLIED PROBABILITY

VOLUME 34

1997



Published by the **Applied Probability Trust** in association with the

London Mathematical Society

© 1997

ISSN 0021-9002

Authorisation to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by the Applied Probability Trust for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$00.70 per copy, plus 0.20 per page is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923, USA. 0021–9002/97 \$00.70 + .20.