

# JOURNAL OF APPLIED PROBABILITY

---

VOLUME 25

NUMBER 1

MARCH 1988



EDITOR-IN-CHIEF 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 800 pages is published in four issues appearing in March, June, September and December.

## EDITORIAL COMMITTEE

*Editor-in-Chief* J. GANI (University of California at Santa Barbara)

*Coordinating Editors* C. C. HEYDE (Australian National University)  
M. F. NEUTS (University of Arizona)  
G. E. H. REUTER (Imperial College, London)

*Executive Editor* MAVIS HITCHCOCK (University of Sheffield)

## EDITORS

A. D. BARBOUR (University of Zürich)  
V. BARNETT (University of Sheffield)  
N. H. BINGHAM (Royal Holloway and  
Bedford New College, London)  
D. R. COX (Imperial College, London)  
P. D. FINCH (Monash University)  
E. J. HANNAN (Australian National University)  
S. KARLIN (Stanford University)  
D. G. KENDALL (University of Cambridge)  
M. KIMURA (National Institute of Genetics,  
Shizuoka-ken)  
YU. V. PROKHOROV (Academy of Sciences of the  
USSR, Moscow)  
W. VERVAAT (Catholic University, Nijmegen)  
G. S. WATSON (Princeton University)  
P. WHITTLE (University of Cambridge)

**TECHNICAL EDITOR** KATHLEEN M. LYLE (University of Sheffield)

## ADDRESS FOR CORRESPONDENCE

All correspondence relating to the submission of papers should be sent to:  
The Executive Editor,  
Applied Probability,  
Department of Probability and Statistics,  
The University,  
Sheffield S3 7RH, England.

Subscription rates and notes for contributors are to be found on the inside back cover.

# JOURNAL OF APPLIED PROBABILITY

---

VOLUME 25

1988



EDITOR-IN-CHIEF J. GANI

Published by the  
**Applied Probability Trust**  
in association with the  
**London Mathematical Society**

© 1988

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 \$00.50 per copy, plus .10 per page is paid directly to CCC, 27 Congress St., Salem, MA 01970, U.S.A. 0021-9002/88 \$00.50+.10.