

# ***Advances in Applied Probability***

*Editor-in-Chief:* J. GANI

*Editors:* E. SPARRE ANDERSEN, D. BLACKWELL, B. GNEDENKO,  
J. HÁJEK, E. J. HANNAN, D. G. KENDALL, J. F. C. KINGMAN,  
K. KRICKEBERG, P. A. P. MORAN, J. NEVEU, K. R. PARTHASARATHY,  
R. PYKE, C. A. B. SMITH, L. TAKÁCS

**Volume 2**

**Number 1**

**Spring 1970**

*Published by the*

**APPLIED PROBABILITY TRUST**

# *Advances in Applied Probability*

This is a companion publication to the *Journal of Applied Probability* published by the Applied Probability Trust. It contains review and expository papers in Applied Probability, as well as mathematical and scientific papers of interest to probabilists. An annual volume of approximately 300–400 pages will be published in two numbers appearing in the Spring and Autumn.

## Submission of papers

Submissions to the *Advances* may be of three kinds:

(1) *review and expository papers* of about 40–50 printed pages in length, surveying a field of Applied Probability; these will be paid for on acceptance at the rate of £stg.100 (\$240);

(2) *long research papers* in Applied Probability, which may include expository material;

(3) *shorter expository papers* on branches of mathematics of interest to probabilists; papers outlining areas in the biological, physical, social and technological sciences in which probability models can be usefully developed; papers in Applied Probability presented at conferences which do not publish their proceedings.

These should be sent to any one of

### *Editor-in-Chief:*

J. GANI *Department of Probability and Statistics, The University, Sheffield, S3 7RH, England*

### *Editors:*

E. SPARRE ANDERSEN *Københavns Universitets Matematiske Institut, H. C. Ørsted Institutet, Universitetsparken 5, København Ø, Denmark.*

D. BLACKWELL *Department of Statistics, University of California, Berkeley, California 94720, U.S.A.*

B. GNEDENKO *Sector I, Flat 75, Moscow University, Moscow B-234, U.S.S.R.*

J. HÁJEK *Department of Statistics, Charles University, Sokolovska ul. 83, Prague 8, Czechoslovakia.*

E. J. HANNAN *Department of Statistics, Australian National University, P.O.Box 4, Canberra, Australia 2600.*

D. G. KENDALL *Statistical Laboratory, Cambridge University, Cambridge, England.*

J. F. C. KINGMAN *Mathematical Institute, 24–29 St. Giles, Oxford OX1 3LB, England.*

K. KRICKEBERG *Institut für angewandte Mathematik, Universität Heidelberg, Berliner Strasse 17, 6900 Heidelberg 1, W. Germany.*

P. A. P. MORAN *Department of Statistics, Australian National University, P.O.Box 4, Canberra, Australia 2600.*

J. NEVEU *Département de Mathématiques, Faculté des Sciences, Université de Paris, 11 Rue Pierre-Curie, Paris 5, France.*

K. R. PARTHASARATHY *Statistical Laboratory, Department of Mathematics, The University, Manchester, M13 9PL, England.*

R. PYKE *Department of Mathematics, University of Washington, Seattle, Washington 98105, U.S.A.*

C. A. B. SMITH *Galton Laboratory, University College, Wolfson House, 4 Stephenson Way, London N.W. 1, England.*

L. TAKÁCS *Department of Mathematics, Case Western Reserve University, University Circle, Cleveland, Ohio 44106, U.S.A.*

# ***Advances in Applied Probability***

*Editor-in-Chief:* J. GANI

*Editors:* E. SPARRE ANDERSEN, D. BLACKWELL, B. GNEDENKO,  
J. HÁJEK, E. J. HANNAN, D. G. KENDALL, J. F. C. KINGMAN,  
K. KRICKEBERG, P. A. P. MORAN, J. NEVEU, K. R. PARTHASARATHY,  
R. PYKE, C. A. B. SMITH, L. TAKÁCS

Volume 2

1970

*Published by the*  
**APPLIED PROBABILITY TRUST**