

Editor-in-Chief:

J. GANI

Editors:

M. S. BARTLETT
R. BELLMAN
D. R. COX
A. DVORETZKY
P. D. FINCH
J. HAJNAL
J. M. HAMMERSLEY
E. J. HANNAN
S. KARLIN
D. G. KENDALL
M. KIMURA
D. V. LINDLEY
P. A. P. MORAN
J. E. MOYAL
YU. V. PROKHOROV
G. E. H. REUTER
L. SCHMETTERER
J. LAURIE SNELL
L. TAKÁCS
G. S. WATSON
P. WHITTLE

Journal of Applied Probability

Volume 10
Number 3
September 1973

Published by the

APPLIED PROBABILITY TRUST

in association with the

LONDON MATHEMATICAL SOCIETY

© Applied Probability Trust 1973

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 will be published in four numbers appearing in March, June, September and December.

Submission of papers

Submissions to the *Journal* may be of two kinds:

- (1) *research papers*;
- (2) *short communications* of a few printed pages in the nature of notes or brief accounts of work in progress.

These should be sent to any one of the editors mentioned below.

Review papers of about 40–50 printed pages in length, surveying a field of Applied Probability, will in future appear in *Advances in Applied Probability*, a companion journal of the Applied Probability Trust. Review papers should be sent to the Editor-in-Chief.

Editor-in-Chief:

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

Editors:

- M. S. BARTLETT *Department of Biomathematics, Pusey Street, Oxford, England.*
R. BELLMAN *Department of Electrical Engineering, University of Southern California, Los Angeles, California 90007, U.S.A.*
D. R. COX *Department of Mathematics, Imperial College of Science and Technology, London S.W.7, England.*
A. DVORETZKY *Department of Mathematics, Hebrew University of Jerusalem, Israel.*
P. D. FINCH *Department of Mathematics, Monash University, P.O. Box 92, Clayton, Victoria, Australia.*
J. HAJNAL *Department of Statistics, London School of Economics, Houghton St., London W.C.2, England.*
J. M. HAMMERSLEY *Institute of Statistics, Oxford University, Oxford, England.*
E. J. HANNAN *Department of Statistics, Australian National University, P.O. Box 4, Canberra, Australia, 2600.*
S. KARLIN *Department of Mathematics, The Weizmann Institute of Science, P.O. Box 26, Rehovoth, Israel.*
D. G. KENDALL *Statistical Laboratory, Cambridge University, Cambridge, England.*
M. KIMURA *National Institute of Genetics, Yata I, III, Mishima-shi, Shizuoka-ken, Japan.*
D. V. LINDLEY *Department of Statistics, University College, Gower Street, London W.C.1, England.*
P. A. P. MORAN *Department of Statistics, Australian National University, P.O. Box 4, Canberra, Australia, 2600.*
J. E. MOYAL *School of Mathematics and Physics, Macquarie University, North Ryde, N.S.W. 2113, Australia.*
YU. V. PROKHOROV *Mathematical Institute of the Academy of Sciences of the U.S.S.R., 1-st Akademicheskoy Proezd 28, Moscow, B-333, U.S.S.R.*
G. E. H. REUTER *Department of Mathematics, Imperial College of Science and Technology, London S.W.7, England.*
L. SCHMETTERER *Mathematical Institute of the University of Vienna, Strudlhofgasse 4, Vienna IX, Austria.*
J. LAURIE SNELL *Department of Mathematics and Astronomy, Dartmouth College, Hanover, N.H., U.S.A.*
L. TAKÁCS *Department of Mathematics, Case Western Reserve University, University Circle, Cleveland, Ohio 44106, U.S.A.*
G. S. WATSON *Department of Statistics, Princeton University, Fine Hall, P.O. Box 708, Princeton, N.J. 08540, U.S.A.*
P. WHITTLE *Statistical Laboratory, Cambridge University, Cambridge, England.*

Technical Editor:

ALICE C. SHARP

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

Executive Editor:

MAVIS HITCHCOCK