THE ANNALS of MATHEMATICAL STATISTICS

(FOUNDED BY H. C. CARVER)

THE OFFICIAL JOURNAL OF THE INSTITUTE OF MATHEMATICAL STATISTICS

Contents

23776277763	
A Class of Statistics with Asymptotically Normal Distribution.	PAGE
Wassily Hoeffding	293
WALD AND J. WOLFOWITZ	326
Limiting Distribution of a Root of a Determinantal Equation. D.	
N. Nanda	340
Covariance. William G. Madow	351
Mixture of Distributions. Herbert RobbinsSome Applications of the Mellin Transform in Statistics. Ben-	360
JAMIN EPSTEIN	370
The Estimation of Linear Trends. G. W. HOUSNER AND J. F.	
Brennan	380
On the Effect of Decimal Corrections on Errors of Observation. Philip Hartman and Aurel Wintner	389
Weighing Designs and Balanced Incomplete Blocks. K. S.	20.4
BanerjeeBounds for Some Functions Used in Sequentially Testing the Mean	394
of a Poisson Distribution. Leon H. Herbach	400
Notes:	
The Distribution of Student's t when the Population Means are Unequal. Herbert Robbins	406
A Distribution-Free Confidence Interval for the Mean. Louis Gutt-	
On the Compound and Generalized Poisson Distributions. E. Can-	410
SADO MACEDA	414
On Confidence Limits for Quantiles. GOTTFRIED E. NOETHER A Lower Bound for the Expected Travel Among m Random Points.	416
ELI S. MARKS A Matrix Arising in Correlation Theory. H. M. BACON	$\frac{419}{422}$
Table of Normal Probabilities for Intervals of Various Lengths and Locations. W. J. DIXON	424
Correction to "A Note on the Fundamental Identity of Sequential	
Analysis". G. E. Albert	$\frac{426}{427}$
Abstracts of Papers	428
Book Review	436
News and Notices	438
Report on the Berkeley Meeting of the Institute	444

Vol. XIX, No. 3 — September, 1948

THE ANNALS OF MATHEMATICAL STATISTICS

EDITED BY

S. S. WILKS, Editor

M. S. BARTLETT WILLIAM G. COCHRAN ALLEN T. CRAIG C. C. CRAIG HARALD CRAMÉR W. EDWARDS DEMING J. L. DOOB W. FELLER HAROLD HOTELLING

J. NEYMAN WALTER A. SHEWHART JOHN W. TUKEY A. WALD

WITH THE COÖPERATION OF

T. W. Anderson, Jr. David Blackwell J. H. Curtiss J. F. Daly Harold F. Dodge Paul S. Dwyer CHURCHILL EISENHART
M. A. GIRSHICK
PAUL R. HALMOS
PAUL G. HOEL
MARK KAC
E. L. LEHMANN
WILLIAM G. MADOW

H. B. MANN ALEXANDER M. MOOD FREDERICK MOSTELLER H. E. ROBBINS HENRY SCHEFFÉ JACOB WOLFOWITZ

The Annals of Mathematical Statistics is published quarterly by the Institute of Mathematical Statistics, Mt. Royal & Guilford Aves., Baltimore 2, Md. Subscriptions, renewals, orders for back numbers and other business communications should be sent to the Annals of Mathematical Statistics, Mt. Royal & Guilford Aves, Baltimore 2, Md., or to the Secretary of the Institute of Mathematical Statistics, P. S. Dwyer, 116 Rackham Hall, University of Michigan, Ann Arbor, Mich.

Changes in mailing address which are to become effective for a given issue should be reported to the Secretary on or before the 15th of the month preceding the month of that issue. The months of issue are March, June, September and December.

Manuscripts for publication in the Annals of Mathematical Statistics should be sent to S. S. Wilks, Fine Hall, Princeton, New Jersey. Manuscripts should be typewritten double-spaced with wide margins, and the original copy should be submitted. Footnotes should be reduced to a minimum and whenever possible replaced by a bibliography at the end of the paper; formulae in footnotes should be avoided. Figures, charts, and diagrams should be drawn on plain white paper or tracing cloth in black India ink twice the size they are to be printed. Authors are requested to keep in mind typographical difficulties of complicated mathematical formulae.

Authors will ordinarily receive only galley proofs. Fifty reprints without covers will be furnished free. Additional reprints and covers furnished at cost.

The subscription price for the Annals is \$8.00 inside the Western Hemisphere and \$5.00 elsewhere. Single copies \$3.00. Back numbers are available at \$8.00 per volume or \$3.00 per single issue.

COMPOSED AND PRINTED AT THE WAVERLY PRESS, INC. BALTIMORE, MD., U. S. A.