THE ANNALS
of
MATHEMATICAL
STATISTICS
FOUNDED AND EDITED BY H. C. CARVER, 1930-1938
EDITED BY S. S. WILKS, 1938-1949
THE OFFICIAL JOURNAL OF THE INSTITUTE
OF MATHEMATICAL STATISTICS

Contents

The Cramér-Smirnov Test in the Parametric Case. D. A. DARLING 1
Characterizations of Complete Classes of Tests of Some Multiparametric
Hypotheses, with Applications to Likelihood Ratio Tests. ALAN
BIRNBAUM 21
Asymptotic Solutions of the Compound Decision Problem for Two Com-
pletely Specified Distributions. JAMES HANNAH AND HERBERT ROBBINS 37
The Efficiency of Tests. WASSILY HOEFFDING AND JOAN RAUP ROSENBLATT 52
On a Theorem of Pitman. GOTTFRIED E. NOETHER 64
An Extension of Wald's Theory of Statistical Decision Functions. L.
LEČAM 69
Sequential Life Tests in the Exponential Case. BENJAMIN EPSTEIN AND
MILTON SOBEL 82
Rank Sum Tests of Fit. CHIA KUEI TSAO 94
Random Functions Satisfying Certain Linear Relations, II. S. G. GHURTE 105
On the Distribution of the Sample Median. JOHN T. CHU 112
Some New Test Criteria in Multivariate Analysis. K. C. S. PILLAI 117
Distribution of Definite and of Indefinite Quadratic Forms. JOHN GERLAND 122
Note on the Distribution of a Definite Quadratic Form. JAMES PACHARES 128
On the Maximum Number of Constraints of an Orthogonal Array. ESTHER
SEIDEN 132
Notes:

On a Sequential Test for the General Linear Hypothesis. PAUL
G. HOEL 136
Two Comments on "Sufficiency and Statistical Decision Functions".
R. R. BARADUR AND E. L. LEHMANN 139
A Note on Confidence Sets for Random Variables. LIONEL WEISS 142
An Inconsistency of the Method of Maximum Likelihood. D. BASU 144
A Note on Simultaneous Confidence Intervals. MEYER DWASS 146
An Inequality on Poisson Probabilities. HENRY TRICHER 147
Note on Linear Hypotheses with Prescribed Matrix of Normal Equations.
JOHN E. MAXFIELD AND ROBERT S. GARDNER 149
Abstracts of Papers 150
News and Notices 163
Report of the Iowa City Meeting 166
Report of the Berkeley Meeting 170
Report of the President of the Institute 179
Report of the Secretary-Treasurer of the Institute 186
Report of the Editor of the Annals 187
Publications Received 188

Vol. 26, No. 1 — March, 1955