

*THE AMERICAN STATISTICAL ASSOCIATION*

---

---

**Vol. III**

**No. 3**

---

---

**THE ANNALS**  
of  
**MATHEMATICAL**  
**STATISTICS**

*SIX DOLLARS PER ANNUM*

**AUGUST**

**1932**

PUBLISHED QUARTERLY BY  
AMERICAN STATISTICAL ASSOCIATION

*Publication Office*—Edwards Brothers, Inc., Ann Arbor, Michigan

*Business Office*—530 Commerce Bldg., New York Univ., New York, N. Y.

*Entered as second class matter at the Postoffice at Ann Arbor, Mich.,  
under the Act of March 3rd, 1879.*

STATEMENT OF OWNERSHIP  
UNDER ACT OF CONGRESS OF AUGUST 24, 1912

*Publisher*—American Statistical Association, New York City, New York.

*Editor*—H. C. Carver, University of Michigan.

*Managing Editor*—Rattan S. Sekhon, Ann Arbor, Michigan.

*Business Manager*—J. W. Edwards, Ann Arbor, Michigan.

*Owner*—American Statistical Association, 530 Commerce Bldg., New York  
City.

**Vol. III**

**1932**

---

**THE ANNALS**  
**of**  
**MATHEMATICAL.**  
**STATISTICS**

**(Printed in U. S. A.)**

**Copyright 1932**



**Published and Lithoprinted by**  
**EDWARDS BROTHERS, INC.**  
**ANN ARBOR, MICH.**

# THE ANNALS OF MATHEMATICAL STATISTICS

---

---

VOL. 3

AUGUST, 1932

NO. 3

---

---

## C O N T E N T S

---

The Theory of Probability from the Point of View of Admissible Numbers . . . . . 143

*Arthur H. Copeland*

Relative Residuals Considered as Weighted Simple Residuals in the Application of the Method of Least Squares . . . 157

*Walter A. Hendricks*, Junior Biologist, Bureau of Animal Industry, United States Department of Agriculture

Moments and Distributions of Estimates of Population Parameters from Fragmentary Samples . . . . . 163

*S. S. Wilks*

On the Sampling Distribution of the Multiple Correlation Coefficient . . . . . 196

*S. S. Wilks*

Curve Approximation by Means of Functions Analogous to the Hermite Polynomials . . . . . 204

*Herrick E. H. Greenleaf*

---

---

PUBLISHED QUARTERLY BY  
AMERICAN STATISTICAL ASSOCIATION

*Publication Office*—Edwards Brothers, Inc., Ann Arbor, Michigan

*Business Office*—530 Commerce Bldg., New York Univ., New York, N. Y.

*Entered as second class matter at the Postoffice at Ann Arbor, Mich., under the Act of March 3rd, 1879.*

## EDITORIAL COMMITTEE

---

H. C. Carver, *Editor*  
R. S. Sekhon, *Assistant Editor*

---

### *Associate Editors*

Burton H. Camp  
Robert Henderson  
Harold Hotelling  
Henry Lewis Rietz  
Henry Schultz

---

J. W. Edwards, *Business Manager*

---

A quarterly publication of the American Statistical Association,  
devoted to the theory and application of Mathematical Statistics.

*Six dollars per annum.*

---

*Reprints of any article in this volume may be obtained at any time  
from the Editor at the following rates, postage included.*

Number of copies	Cost per page
1-4 . . .	2 cents
5-24 . . .	1½ cents
25-49 . . .	1 cent
50 and over . . .	¾ cent

---

ADDRESS: Editor, Annals of Mathematical Statistics  
Post Office Box 171, Ann Arbor, Michigan