# JOURNAL OF THE ROYAL STATISTICAL SOCIETY

THE JOURNAL OF THE ROYAL STATISTICAL SOCIETY is published in three series, SERIES A (GENERAL), four issues a year, annual subscription, post free, £5 4s. U. S. \$15: price each part 30s: SERIES B (METHODOLOGICAL), three issues a year, annual subscription post free, £4 2s. U. S. \$12: price each part 35s: SERIES C (APPLIED STATISTICS), three issues a year, annual subscription 30s.; U. S. \$5, price each part 15s.

Reviews; Current Notes; Library Accessions

# Contents of SERIES B (METHODOLOGICAL), Vol. 31, PART 3, 1969

Compound decisions and empirical Bayes (with Discussion) J. B. Copas Linear compounds of normal linear regression coefficients D. J. Kabe

Two queues in parallel J. J. Hunter

Linear Bayes methods J. A. HARTIGAN

Asymptotic properties of Bayesian decision rules for two terminal decisions and multiple sampling A. Hald and N. Keiding

On distributions and their transformation to normality N. R. DRAPER AND D. R. COX

Correlation between two vector variables A. M. KSHIRSAGAR

On partitioning chi-square and detecting partial association in three-way contingency tables L. A. Goodman Tests for the exponential distribution using Kolmogorov-type statistics V. Seshadri, M. Csorgo and M. A. Stevens

A note on sequential estimation D. A. Solomon

Resolution IV fractional factorial designs B. H. Margolin

Multicollinearity and imprecise estimation S. D. Silvey

The Royal Statistical Society 21, Bentinck Street, London, W. 1

# ESTADÍSTICA

#### Journal of the Inter-American Statistical Institute

Vol. XXVI, No. 100

CONTENTS

September 1968

Gross Domestic Product, Gross National Product, and Capital Formation in El Salvador, 1945-1965

Joseph P. Mooney

Estudio del Componente Estacional de las Series Cronológicas Mediante el Análisis Espectral

Raúl Pedro Ment

Un Indice Encadenado *Versus* Un Indice de Bases Fijas como Regla para medir los Cambios en el Costo de la Vida John C. Sawhill

The Trends and Patterns of the Economic Activity of Women in Latin America During the 1950's

Murray Gendell, Guillermo Rossel U.

Codificación Geográfica Mediante Calculadoras Electrónicas para el Censo de 1970

William T. Fay, Robert L. Hagan

Special Features. Legal Provisions. Institute Affairs. Statistical News. Publications.

Published quarterly Annual subscription price \$3.00 (U.S.)
INTER-AMERICAN STATISTICAL INSTITUTE
Pan American Union
Washington, D. C. 20006

# JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION

Volume 64	December 1969	Number 328
Some Basic Principles of Statistic	rwitz.	Joseph F. Daly
Changes in Consul Matheda	Sample Surveys	and Benjamin J. Tepping
	he Symmetric Test of a Complete Hypothesis	
	nd Its Application to the Book Storage Problem	
	A. K. Jain, F. F. Leimkuh	ler and Virgil L. Anderson
The Forecasting Accuracy of Con-	sumer Attitude DataS. W	V. Burch and H. O. Stekler
	lity in Some Countries of South Asia: A Digest	
	Error Inspection Plans	
	r in Data Processing	
A Note on "Learning Curves"	) 	Eugene W. Pike
	etry Conditions	
	ypical Values zion to the Behrens Fisher Problem	
	eity of an $r \times r$ Contingency TableC. T. Ireland	
	ed Size Samples from Finite Populations	
	Estimator"	
	rror Structures Under Which Certain Simple Le	
of Variance Procedures are Als	so Best	George Zyskind
Variance of Weighted Regression	Estimators When Sampling Errors are Indepen	
Mana Carran Efficience of Estimo		Bement and J. S. Williams
	tors of Variance ComponentsJ. H. Klotz, gh Efficiency in Bivariate Extreme Value Theo	
	iward C. Posner, Eugene R. Rodemich, John C.	
	Distribution	
	Randomization Test in Two Associate PBIB	
Errors in the Estimation of Net M	ligration in the Studies of Internal Migration	M. Sivamurthy
On the Exact Covariance of Produc	cts of Random VariablesGeorge W. Bohrnste	dt and Arthur S. Goldberger
	Range from Discrete Uniform Finite Populati	
	5	
	Distributions from the Exponential Family	
	wo-Action Problems with Linear Economics	
	Exponential Parameter	
Moments of the Distribution of Sa	mple Size in a SPRT	B. K. Ghosh
	with Matrix DerivativesDerrick S.	
A Multivariate Extension of Fried	lman's Chi <sup>2</sup> Test	Thomas M. Gerig
Missing Observations in Multivaria	ate Regression: Efficiency of a First Order Meth	od
	the Moments of Order Statistics	
On the Exact and Approximate San	mpling Distribution of the Two Sample Kolmo	ogorov-Smirnov Criterion
	Several Approximations to the Binomial Distrib	
	lusters	
_	T. D. Wallace an	nd C. E. Toro-Vizcarrondo
A Nomogram for the "Student"	Fisher t Test	William C. Boyd
_		

For further information, please contact:

# AMERICAN STATISTICAL ASSOCIATION

810 18th Street, N.W.

Washington, D.C. 20006

### **BIOMETRICS**

## Journal of the Biometric Society

Vol 25, No. 4

#### CONTENTS

December 1969

The Bayesian outlook and its applications (with discussion)	
The analysis of population growth when the birth and death rates dep	pend upon several factors
	L. A. Goodman
A regression technique for angular variates	A. L. Gould
The power of a test in covariance analysis	Joan S. Reisch and J. T. Webster
Generalised covariance analysis with unequal error	
A comparison of successive screening and discriminant function te	
	. Feldman, D. F. Klein and G. Honigfeld
Response criteria for the bioassay of Vitamin K	
A graphical method for the study of complex genetical systems with s	special reference to equilibria
Estimation of heritability from experiments with related dams	K. Hinkelmann
Iterative estimation of variance components for non-orthogonal da	ata
Notes	•
Associated directions	F. H. C. Marriott

Biometrics is published quarterly. Its objects are to describe and exemplify the use of mathematical and statistical methods in biological and related sciences in a form assimilable by experimenters. The annual non-member subscription rate is \$15.00. Inquiries, non-member subscriptions, and orders for back issues, should be addressed to: Biometrics Business Office, Dept. Biometry, Upper Gate House, Emory University School of Medicine, Atlanta, Georgia 30322, U.S.A. Editorial correspondence should be directed to: Biometrics Editorial Office, Dept. Biostatistics, School of Public Health, University of North Carolina, Chapel Hill, North Carolina 27514, U.S.A.

# **SANKHYĀ**

#### The Indian Journal of Statistics

CONTENTS OF SERIES B, VOL. 31, PARTS 1 & 2, 1969

CONTENTS OF CHARLES D, VOL. 01, IMAID	1 60 4, 1909
Population Census as the Source of Sampling Frame in India Sampling Errors of Covariances and Correlations for $K$ -Dimensional Sta	
A Bivariate Distribution of Product of Beta Variables and Square Roo	t of Chi Square Variable
On Characterization of Certain Exponential-Type Distributions.  Man Years of Life as a Function of Population Growth.  Certain Implications of Short Marital Durations in the Analysis of Live I Recent Advances in Human Genetics.  Operability Region and Optimum Rotatal in Insign.  4.27 Confounded Design' for a Manurial Experiment on Coconut.  Table of 0.2 Percentage Points of Behrens' d.  Revised End-Figures of Behrens' d.  A Note on One and Two-Stope Sampling from Finite Papulations and E.  Variance in Two-Stage Design.  On a Technique of Forming Sampling Unit.  A Revision of Risley's Anthropometric Data Relating to the Darjeeling	Sheela Bildikar   S. Mitra   S. Mitra   S. Mitra   S. Mitra   R. I. Kn':   R. I. Kn':   R. I. Kn':   I. I. Kn':   I. I. Kn':   I. I. Kn':   I.
	Arun Kanti Bhattacharyya
Corrigendum Book Reviews Abstracts of Technical Reports Indian Statistical Institute: Annual Report: 1967-68 Orders for the Journal for distribution outside India are to be sent to:	
Pergamon Press Ltd., Pergamon Press	Inc.,
Headington Hill Hall, or 122 East 55th St	treet,
Oxford, England New York 22, U	TSA .

Orders for the Journal for distribution within India are to be sent to:

Statistical Publishing Society, 204/1 Barrackpore Trunk Road, Calcutta-35, India

# THE INSTITUTE OF MATHEMATICAL STATISTICS

(Organized September 12, 1935)

#### OFFICERS

#### President:

Jack C. Kiefer, Department of Mathematics, Cornell University, Ithaca. New York 14850

#### President-Elect:

William Kruskal, Department of Statistics, University of Chicago, Chicago, Illinois 60637

# Executive Secretary:

Leo Katz, Statistical Laboratory, Michigan State University, East Lansing, Michigan 48823

# Program Secretary:

R. V. Hogg, Department of Statistics, University of Iowa, Iowa City, Iowa 52240

#### Treasurer:

George J. Resnikoff, Department of Statistics, California State College, Hayward, California 94542

#### Editor:

Z. W. Birnbaum, Department of Mathematics, University of Washington, Seattle, Washington 98105

#### Managing Editor:

K. J. C. Smith, Department of Statistics, University of North Carolina, Chapel Hill, North Carolina 27514

The purpose of the Institute of Mathematical Statistics is to encourage the development, dissemination, and application of mathematical statistics.

Membership dues including a subscription to the ANNALS of MATHE-MATICAL STATISTICS are \$20.00 per year for residents of the United States or Canada and \$12.00 per year for residents of other countries. Special student rates of \$10.00 per year are available to students residing in the U.S. and Canada. Inquiries regarding membership in the Institute should be sent to the Treasurer of the Institute.

Membership in the Institute of Mathematical Statistics is not required of authors of papers in the Annals of Mathematical Statistics and the fact of membership or non-membership is given no weight in the consideration of submitted manuscripts.

# Contents (Continued)

Note: Information on meetings of the Institute and submission of abstracts is given immediately before the first article.