

NEWS AND NOTICES

Personal Items

Readers are invited to submit items of personal interest to the Treasurer of the Institute

Dr. Dharam V. Chopra has been promoted to Associate Professor in the Department of Mathematics at Wichita State University.

Dr. Janos Galambos has been promoted to an Associate Professorship in the Department of Mathematics at Temple University.

Dr. V. R. R. Uppuluri is on leave from Oak Ridge National Laboratory until 10 June 1971. He is Visiting Professor in the Department of Statistics, University of Minnesota during the 1971 Spring Quarter. He gave a six week course at the University of Sao Paulo, Brazil, during the fall.

New Members

Absood, Gamil, H., Diploma (Cairo University); Graduate Student, Emory University.

Bricker, Jacob Leon, M.A. (University of California, Irvine); Graduate Student, University of California, Irvine.

Corynen, Guy Charles, M.S. (Wayne State University); Teaching Fellow, University of Michigan.

Fu, James C., M.A. (Cornell University); Graduate Student, The Johns Hopkins University.

Fujikawa, Hirokazu, B.S. (Kinki University); Research Student, Osaka University.

Gianini, Jacqueline, Lic. Mat. (University of Lausanne); Graduate Student, Purdue University.

Grunkemeier, Gary L., M.A. (The Catholic University of America); Graduate Student, The Catholic University of America.

Holcomb, William T., M. Ed. (Florida Atlantic University); Graduate Student, Emory University.

Kingman, Albert, Ph.D. (Colorado State University); Assistant Professor, California State College, Hayward.

Kurano, Masami, M.S. (Kyushu University); Research Associate, Osaka University.

Lawrence, Robert L., M.A. (University of California, Los Angeles); Graduate Student, University of California, Los Angeles.

Lazzlo, Ivanyi.

Matsunawa, Tadashi, B.Eng. (Waseda University); Assistant, Kogakuin Institute of Technology.

- Mueller, Raymond K.**, D.Sc. (Washington University); Assistant Professor, Colorado School of Mines.
- Quiring, Donald K.**, Ph.D. (University of New Mexico); Instructor, University of New Mexico.
- Raghavan, Thirukkannamangai Eachambadi Srinivasa**, Ph.D. (Indian Statistical Institute); Assistant Professor, University of Illinois at Chicago Circle.
- Riordan, William J.**, B.S. (Massachusetts Institute of Technology); Staff Mathematician, MITRE.
- Routledge, Richard D.**, B.Sc. (Queen's University); Graduate Student, University of Alberta.
- Rowcroft, John E.**, M.Sc. (University of Manchester); Graduate Student, Simon Fraser University.
- Salehi, Habib**, Ph.D. (Indiana University); Associate Professor, Michigan State University.
- Shiffler, Ronald E.**, B.S. (University of North Carolina at Greensboro); Graduate Student, Bucknell University.
- Shklov, Nathan**, M.A. (University of Toronto); Professor, University of Windsor.
- Shorrocks, Richard W.**, Ph.D. (Stanford University); Assistant Professor, University of British Columbia.
- Teruhisa, Nakai**, M.Eng. (Osaka University); Graduate Student, Osaka University.
- Walter, Barry**, M.A. (University of New Mexico); Teaching Assistant, University of New Mexico.
- Wang, Yao Hung**, M.S. (Stanford University); Research Associate, Ohio State University.
- West, Sandra A.**, M.A. (Harvard University); Graduate Student, Harvard University.
- Yoshinobu, Teraoka**, B.Eng. (Himeji Institute of Technology); Graduate Student, Osaka University.
- Young, John C.**, B.A. (Northwestern State University of Louisiana); Instructor, Southern Methodist University.
- Zwaneveld, Bert**, graduate examination (University of Amsterdam); Assistant, Institute of Applications of Mathematics.

ACKNOWLEDGMENT OF REFEREES' SERVICES

The following have served as referees of papers for the ANNALS. Thanks are due to each of them for their generous and unselfish assistance.

I. OLKIN

D. A. Anderson	G. A. Anderson	J. Arvesen
R. Barlow	L. Baum	R. Berk
P. K. Bhattacharya	B. Bulgren	J. Capon
E. Cinlar	H. T. David	R. Davidson
A. Dempster	J. M. Dickey	R. Dudley
M. Dwass	M. Eaton	P. Feder
P. Fishburn	A. Galmarino	J. L. Gastwirth
J. C. Geertsema	D. Gilat	L. Gleser
V. Goodman	U. Gujarat	I. Guttman
E. J. Hannan	M. S. Haq	T. Hettmansperger
B. Hill	D. Hoel	M. Hollander
A. S. Householder	J. Huang	P. Huber
D. Jensen	T. T. Kadota	T. Kailath
M. Katz	C. G. Khatri	K. Krickeberg
W. J. Krieger	V. Kurotschka	L. LeCam
A. Lemoine	H. Levenbach	T. Liggett
G. Lindgren	P. W. Millar	D. S. Moore
R. J. Muirhead	J. Ogawa	M. Perlman
W. Philipp	J. Pratt	F. Proschan
P. Ramachandramarty	T. Rockafellar	D. Root
W. Rosenkrantz	S. Ross	G. Roussas
R. Roy	F. Samaniego	E. Samuel-Cahn
R. L. Schaeffer	H. Scheffe	L. Schepp
P. K. Sen	G. R. Shorack	R. Shorrock
S. S. Shrikhande	Z. Sidak	G. Simons
M. Sobel	D. L. Solomon	J. N. Srivastava
M. Srivastava	J. Stepan	S. Stigler
B. P. Stigum	C. Stone	B. Strawderman
D. Stroock	H. Taylor	W. A. Thompson, Jr.
H. Tucker	J. Van Ryzin	D. Varberg
D. Vorlíčková	H. Weed	M. Woodroffe
E. Wong	F. T. Wright	N. D. Ylvisaker
J. Zidek		

DOCTORAL DISSERTATIONS IN STATISTICS, 1970

Listed below are doctorates conferred during 1970 in statistics and related fields. The university, major department, and the title of the dissertation are given in each case. Readers are invited to notify the Editor of any omissions from the list.

- Al-Gayati, H. A. T.**, Virginia Polytechnic Institute, Statistics, "Double-stage shrunken estimators."
- Anderson, William J.**, McGill University, Mathematics, "Local behaviour of solutions of stochastic integral equations."
- Antoniak, C. E.**, University of California, Los Angeles, Mathematics, "Mixtures of Dirichlet processes with application to Bayesian non-parametric problems."
- Arunkumar, S. S.**, University of California, Berkeley, Industrial Engineering and Operations Research, "Estimation of the change point of the generalized failure rate function."
- Badhe, S. K.**, University of Connecticut, Statistics, "On the exact and the approximate forms of the distribution of the Behrens-Fisher-Welch V statistic."
- Barnoon, S.**, University of Pittsburg, Industrial Engineering, "A sequential decision model for the selection of treatment procedures."
- Basu, A. K.**, Purdue University, Statistics, "On some problems in the theory of optimal stopping rules and the log-log law,"
- Bawa, Vijay S.**, Cornell University, Operations Research, "Asymptotically optimal ranking and selection procedures."
- Beaver, R. J.**, University of Florida, Statistics, "On ties in triple comparisons."
- Beckman, R. J.**, Kansas State University, Statistics and Computer Science, "Randomized spring balance weighing design."
- Beckwith, John**, Wayne State University, Mathematics, "Estimation of prior distributions."
- Bigelow, J. H.**, Stanford University, "Operations Research, The chemical equilibrium problem: A special case of nonlinear programming."
- Boza, L. B.**, University of California, Berkeley, Statistics, "Asymptotically optimal tests for finite Markov chains."
- Brumelle, S. L.**, University of California, Berkeley, Industrial Engineering and Operations Research, "Some inequalities for multi-server queues."
- Butterworth, R. W.**, University of California, Berkeley, Industrial Engineering and Operations Research, "A branch and bound method for optimal fault finding."
- Cain, Rolene**, Virginia Polytechnic Institute, Statistics, "The generalized inbreeding coefficient and the generalized heterozygosity index in a recurrent selection program."
- Chen Shun-zer**, Purdue University, Statistics, "Contribution to the theory of queues with semi-Markovian features."

- Chi Yu-hua (George)**, Carnegie–Mellon University, Mathematics, “Non-linear prediction and multiplicity theory of generalized random processes.”
- Chu, Herbert H.**, George Washington University, Statistics, “Some results in tests of hypotheses of separate families of distributions by the minimum discrimination information statistic.”
- Cleveland, W. S., II.**, Yale University, Statistics, “Time series projections, theory and practice.”
- Crotty, David W.**, Pennsylvania State University, Mathematics, “Algebraic structure theory: Its impact on probability and mathematical statistics.”
- Dahlgren, D.**, University of New Mexico, Mathematics, “Adaptive nonlinear prediction and convergence rates.”
- Dash, A.**, University of Toronto, Mathematics, “Joint spectrum, joint numerical range and joint spectral sets.”
- Davis, Clarence E.**, North Carolina State University, Statistics, “Some measures of skewness.”
- Davis, Robert Loyal**, Virginia Polytechnic Institute, Statistics, “An investigation of some alternative estimation procedures.”
- De Hoyos, A. G.**, University of California, Berkeley, Statistics, “Continuity of some Gaussian processes parameterized by the compact convex sets in R^s .”
- Devlin, T. F.**, Catholic University of America, Statistical Laboratory, “Sample properties of general linear processes.”
- Dorr, Albert E.**, University of Oklahoma, Biostatistics and Epidemiology, “An empirical investigation of the multivariate multiple sample location problem.”
- Duncan, Karen M. A.**, University of Oklahoma, Biostatistics and Epidemiology, “On robustness of the F-test for correlated observations.”
- Dyer, Danny Dee**, Southern Methodist University, Statistics, “Parametric estimation in a doubly truncated bivariate normal distribution.”
- Ehlers, Mary B.**, Washington State University, Mathematics, “Statistical inference related to the negative exponential distribution.”
- Eisner, Mark J.**, Cornell University, Operations Research, “On duality in infinite-player games and sequential chance-constrained programming.”
- Ellenberg, J. H.**, Harvard University, Statistics, “Detection of outliers in multivariate linear regression.”
- Fergany, Nader A.**, University of North Carolina at Chapel Hill, Biostatistics, “On the macro-dynamic stochastic treatment of the size and age structure of a human population.”
- Fernandex, P. J.**, University of California, Berkeley, Statistics, “On the weak convergence of random sums of independent random elements.”
- Folk, E. D.**, University of Oklahoma, Biostatistics and Epidemiology, “An analysis and simulation of R–R intervals.”
- Friedel, D. C.**, Case Western Reserve University, Operations Research, “Deterministic and stochastic R and D resource allocation models.”
- Fulton, D. L.**, University of Connecticut, Statistics, “Semigroups on oriented mobs.”

- Gaines, R. E.**, University of North Carolina at Chapel Hill, Biostatistics, "Some multivariate methods in human genetics with special consideration of the problems of separation into genetically distinct groups and twin discrimination."
- Gilat, D.**, University of California, Berkeley, Statistics, "I. On the convergence of random series, II. Exponential bounds for semi-martingales with subnormal conditional increments."
- Gluckman, P. M.**, Stanford University, Statistics, "Applications of diffusion approximations to the collective theory of risk."
- Godambe, A. V.**, Pennsylvania State University, Statistics, "Some problems related to the study of random matrices."
- Goldsmith, C. H.**, North Carolina State University, Statistics, "Three-stage nested designs for estimating variance components."
- Goldstein, Matthew**, University of Connecticut, Statistics, "Nonparametric discriminant analysis."
- Gregory, W. C.**, North Carolina State University, Statistics, "Design procedures and use of prior information in the estimation of parameters of non-linear model."
- Griffin, B. S.**, Virginia Polytechnic Institute, Statistics, "Empirical Bayes estimators for the binomial distribution with applications."
- Gulati, B. R.**, University of Connecticut, Statistics, "On packing problem and its applications."
- Gupta, Devendra**, Catholic University of America, Statistical Laboratory, "On circular distributions."
- Gutjahr, A. L.**, Rutgers University, Statistics, "Sequential hypothesis tests for semi-Markov processes."
- Haji, R.**, University of California, Berkeley, Industrial Engineering and Operations Research, "Study of multiple channel queue."
- Halpern, E. F.**, University of Michigan, Statistics, "Bayesian polynomial regression analysis."
- Hartmann, N. A., Jr.**, Texas A & M University, Statistics, "An extension of the maximum F ratio with unequal degrees of freedom."
- Haseman, J. K.**, University of North Carolina at Chapel Hill, Biostatistics, "The genetic analysis of quantitative traits using twin and sib data."
- Heath, D. C.**, University of Illinois, Mathematics, "Probabilistic analysis of hyperbolic systems of partial differential equations."
- Helms, R. W.**, North Carolina State University, Statistics, "A procedure for the selection of terms and estimation of coefficients in a response surface model with integration-orthogonal terms."
- Henderson, W. G.**, University of Michigan, Biostatistics, "Application of some statistical methods including factor analysis to a battery of clinical quantitative neurological tests for evaluating disability in multiple sclerosis."
- Hertz, E. S.**, Columbia University, Mathematical Statistics, "On convergence rates in the central limit theorem."

- Hogan, M. D.**, University of North Carolina at Chapel Hill, Biostatistics, "Comparison of duodenal ulcer surgical procedures."
- Hooke, J. A.**, Cornell University, Operations Research, "Some limit theorems for priority queues."
- Huang Jin-sheng**, Michigan State University, Statistics and Probability, "Equivariance in compound decision problems and a stability of symmetrifications of product measures."
- Hutcheson, K.**, Virginia Polytechnic Institute, Statistics, "The moments and distribution for an estimate of the Shannon information measure and its application to ecology."
- Izzet, Sahin**, Case Western Reserve University, Operations Research, "Some stochastic systems with secondary inputs."
- James, Kenneth E.**, University of Minnesota, Biometry, "A system for convenient description and analysis for linear classification models utilizing an orthogonal projection operator."
- Janardan, K. G.**, Pennsylvania State University, Statistics, "On a class of multivariate hypergeometric models."
- Johnson, Mark A.**, North Carolina State University, Statistics, "On the Kiefer-Wolfowitz process and some of its modifications."
- Johnston, W. E.**, Texas A & M University, Statistics, "Estimation and classification problems in the fixed model analysis of variance."
- Kanna, Dhandapani**, Wayne State University, Mathematics, "On probability theory in separable Banach spaces."
- Katumanu, P. V.**, Cornell University, Operations Research, "Continuous time Markov decision models with applications to optimization models."
- Klass, W. C.**, University of Toronto, Mathematics, "Marginal likelihood and generalisations on the structural model."
- Kleinbaum, D. G.**, University of North Carolina at Chapel Hill, Statistics, "Estimation and testing hypotheses for generalized multivariate linear models."
- Knowles, W. E.**, Kansas State University, Statistics and Computer Science, "Optimal equally-spaced designs for polynomial models."
- Ko Ung-ring**, University of Minnesota, Biometry, "The effect of mortality changes for specified causes of death on population structure."
- Kromer, R. E.**, Stanford University, Statistics, "Asymptotic properties of the autoregressive spectral estimator."
- Kupper, Lawrence L.**, University of North Carolina at Chapel Hill, Statistics, "Optimal response surface techniques using Fourier series and spherical harmonics."
- Lamborn, K. R.**, Stanford University, Statistics, "Problems from biostatistics."
- Laghrari, A.**, University of California, Berkeley, Statistics, "Estimation with crude measurements."
- Lansdowne, Z. F.**, Stanford University, Operations Research, "The theory and application of generalized linear control processes."

- Lee Eun-sul**, North Carolina State University, Statistics, "Aspects of institutional mobility patterns of chemists in higher education."
- Lee, John G.**, University of Minnesota, Biometry, "Some mathematical models for the intravenous glucose tolerance test."
- Lewis, Charles**, Princeton University, Statistics, "The countback method for analyzing sensitivity data."
- Littell, R. C.**, Oklahoma State University, Mathematics and Statistics, "Properties of Bahadur efficiency."
- Logan, Buford, A., Jr.**, University of Southern California, Mathematics, "Stationary random measures."
- MacLean, C. J.**, George Washington University, Statistics, "Statistical inference within the nonstationary Poisson process."
- Magalit, H. F.**, Oklahoma State University, Mathematics and Statistics, "Detecting a change in the mean of a normal distribution at an unknown time."
- Marcus, H. M.**, Johns Hopkins University, Biostatistics, "A stochastic model of the population dynamics of malaria parasites in the mammalian host."
- Mariano, R. S.**, Stanford University, Statistics, "On distributions and moments of single-equation estimators in a set of simultaneous linear stochastic equations."
- Matis, J. H.**, Texas A & M University, Statistics, "Stochastic compartment analysis: Model and least squares estimation."
- Matlock, G. B.**, Southern Methodist University, Statistics, "Statistical theory for the detection of signals under linear scale transformations."
- Maxwell, F. A.**, University of Toronto, Industrial Engineering, "Structural inference and censored data."
- Mexas, A. B.**, Iowa State University, Statistics, "Some computational aspects of linear classification models."
- Michaels, Scott E.**, North Carolina State University, Statistics, "Optimization of testing and estimation procedures for a quadratic regression model."
- Miller, Don Michael**, Virginia Polytechnic Institute, Statistics, "Empirical Bayes estimation of queueing parameters."
- Miller, M. F.**, University of Iowa, Statistics, "Some different approaches to goodness-of-fit tests."
- Milton, E. O., III.**, Duke University, Mathematics, "Asymptotic behavior of transforms of distributions."
- Mohoney, Frank J.**, Rensselaer Polytechnic Institute, Operations Research and Statistics, "The design of experiments for regression analysis by computer search procedures."
- Molk, Y.**, George Washington University, Statistics, "On estimation of probabilities in contingency tables with restrictions on marginals."
- Monroe, Itrel E.**, University of Washington, Mathematics, "On realizing preassigned distributions with stopping times of Brownian motion."
- Morgan, R. L.**, University of Missouri-Columbia, Statistics, "A class of conjugate prior distributions and optimal allocation."

- McBride, L. C.**, North Carolina State University, Statistics, "A study of the distribution pattern of the incorporation of radioiron into rat liver ferritin."
- McCabe, G. P., Jr.**, Columbia University, Mathematical Statistics, "Some problems in sequential discrimination."
- McDonagh, F. B.**, Catholic University of America, Statistical Laboratory, "Renewal theorems for Cesàro sums of independent random variables."
- McGill, J. T.**, Stanford University, Operations Research, "Optimal control of queueing systems with variable number of exponential servers."
- Nagambal, P. N.**, University of Windsor, Mathematics, "Contributions to products of polykays."
- Nair, K. Aiyappan**, State University of New York at Buffalo, Statistics, "Some topics in the multi-dimensional age-dependent branching processes."
- Nair, S. S.**, Purdue University, Statistics, "On certain priority queues."
- Nelson, David**, Texas Technological University, Mathematics, "Linear and quadratic restraints."
- Nelson, Norma A.**, University of Minnesota, Biometry, "Treatment estimation in randomized clinical trials with strata heterogeneity."
- Nigam, A. K.**, University of California, Berkeley, Industrial Engineering and Operations Research, "Optimal strategies in capacity expansion."
- Nocturne, Dominique**, Cornell University, Operations Research, "Asymptotic efficiency of the maximum likelihood estimates with the parameters of certain stochastic processes."
- North, D. W.**, Stanford University, Operations Research, "An invariance approach to the probabilistic encoding of information."
- Ochi, Shigeru**, University of Minnesota, Biometry, "Laboratory automation for improved speed quality control, and diagnosis."
- Olson, W. H.**, Virginia Polytechnic Institute, Statistics, "Asymptotic distribution of eigenvalues of random matrices and characterization of the Gaussian distribution by rotational invariance."
- O'Reilly, N. E.**, Columbia University, Mathematical Statistics, "On applications of the invariance principle on finite and semi-infinite time intervals."
- Oxspring, H. H.**, Texas A & M University, Statistics, "Optimal estimation of multivariate parameters from fragmentary data."
- Oyelese, J. O.**, University of California, Berkeley, Statistics, "A stochastic model of epidemics involving an intermediate host (vector)."
- Papaioannou, P. C.**, Iowa State University, Statistics, "On statistical information theory and related measure of information."
- Papanicolaou, G.**, New York University, Mathematics Department, "On stochastic differential equations and applications."
- Parker, E. D.**, University of Oklahoma, Biostatistics and Epidemiology, "The analysis of biological data collected systematically and pseudo-systematically over time."
- Petrasovits, A.**, Florida State University, Statistics, "Approximations to Bayes procedures for quantal assays with simple exponential tolerance distributions."

- Pirie, W. R.**, Florida State University, Statistics, "Distribution-free tests for ordered alternatives in the randomized block model."
- Pledger, G. W.**, University of Missouri-Columbia, Statistics, "Consistency of restricted least squares estimators."
- Poirot, James**, Texas Technological University, Mathematics, "Applications of residual analysis."
- Prentice, R. L.**, University of Toronto, Mathematics, "Dilution, bio-assay, discrete reaction and the structural model."
- Raffety, D.**, Northwestern University, Mathematics, "Random environment branching processes."
- Rageh, Nabil Saad El-Din Ibrahim**, University of California, Berkeley, Industrial Engineering and Operations Research, "General class of stochastic transportation problems."
- Rechtschaffen, R.**, New York University, Mathematics Department, "Weak convergence of the empiric process for independent random vectors and the joint asymptotic normality of linear combinations of component order statistics."
- Resnick, S. I.**, Purdue University, Statistics, "Maximum of a sequence of random variables defined on a Markov chain."
- Riverola, Jose**, Stanford University, Operations Research, "Step size problems."
- Rogers, J. S.**, Stanford University, Operations Research, "A dynamic model for planning capacity expansion: An application to plant reliability in electric power systems."
- Rosenberg, S. H.**, Johns Hopkins University, Biostatistics, "Topics in variance component estimation."
- Rutledge, R. A.**, Columbia University, Mathematical Statistics, "The survival of epistatic gene complexes in subdivided populations."
- Sakar, T. K.**, Stanford University, Operations Research, "Some lower bounds of reliability."
- Samanta, Mrityunjay**, University of Arizona, Mathematics, "Universally efficient nonparametric inference."
- Schotz, W. E.**, State University of New York at Buffalo, Statistics, "Theoretical values for the labelling and mitotic indices associated with pulse, continuous and double label experiments."
- Schucany, W. R.**, Southern Methodist University, Statistics, "The reduction of bias in parametric estimation."
- Sehult, A. H.**, North Carolina State University, Statistics, "On unbiased estimation of density functions."
- Seibert, G. B., Jr.**, Southern Methodist University, Statistics, "Estimation and confidence intervals for quantal response of sensitivity data."
- Shorrick, R. W.**, Stanford University, Statistics, "Caravans in traffic flow."
- Smith, George E. J.**, University of Alberta, Mathematics, "Nonparametric regression analysis—multivariate case."

- Sogliero, G. S.**, University of Connecticut, Statistics, "Sequential procedure for estimating linear combinations of means of several normally distributed random variables when the variances are unknown."
- Sposito, V.**, Iowa State University, Statistics, "Aspects of duality in linear programming."
- Spraktes, F. W.**, University of Idaho, Mathematics, "Fitting segmented non-linear regression functions."
- Sproule, Raymond N.**, University of North Carolina at Chapel Hill, Statistics, "A sequential fixed-width confidence interval for the mean of a U-statistic."
- Stanley, R. M.**, Columbia University, Mathematical Statistics, "Boundary crossing probabilities for the Kolmogorov-Smirnov statistics."
- Stone, W. C.**, University of Idaho, Mathematics, "Representations of a two-manifold."
- Strauss, Stephen J.**, Columbia University, Mathematical Statistics, "Random fragmentation of a rod."
- Sung-Bing**, Harvard University, Statistics, "Decision rules for optimal personnel selection."
- Swinsky, Gregor W.**, Catholic University of America, "Statistical Laboratory, Nonparametric concordance for small sample time series."
- Tomkins, R. J.**, Purdue University, Statistics, "On the law of the iterated logarithm."
- Talwar, P. P.**, University of North Carolina, Biostatistics, "Age patterns of fertility."
- Ullman, N. S.**, University of Michigan, Biostatistics, "Models for statistical analysis of experiments using repeated drug treatments: Chemotherapy of L1210 leukemia in mice."
- Ware, J. H.**, Stanford University, Statistics, "Regression when both variables are subject to error and the ranks of their means are known."
- Warner, J. E.**, Case Western Reserve University, Mathematics and Statistics, "Asymptotic properties of multivariate permutation tests."
- Waugh, K. R.**, Carnegie-Mellon University, Statistics, "Statistical information based on uncertainty functions."
- Weber, Donald C.**, North Carolina State University, Statistics, "A stochastic model for automobile accident experience."
- Weisberg, H. I.**, Harvard University, Statistics, "Upper and lower probability inferences from ordered multinomial data."
- Weiss, Neil A.**, University of California, Los Angeles, Mathematics, "Limit theorems for infinite particle systems."
- Weissner, E. W.**, University of North Carolina at Chapel Hill, Statistics, "Multitype branching processes on random environment."
- Wind, Serge L.**, Columbia University, Mathematical Statistics, "An empirical Bayes approach to the multiple linear regression problem."
- Wittes, J. T.**, Harvard University, Statistics, "Estimation of population size: The Bernoulli census."

Worthley, R. G., Kansas State University, Statistics and Computer Science, "On the use of finite algebras in the construction of confounding plans for mixed factorial experiments."

Yeh Chiao, University of Minnesota, Biometry, "Stochastic models of 'follow-up' in the clinical trial: Life tables and competing risk analysis."

Youssef, M. N., Oregon State University, Statistics, "Optimization techniques for time-shared computer systems."

Zahn, D. A., Harvard University, Statistics, "An empirical study of the half-normal plot."

Doctorate conferred in 1969 but not listed in the June 1970 *Annals*.

Stivastava, Surendra Kumat, Mathematical Statistics, "Contributions to the use of auxiliary information in sampling theory."

REPORT OF THE UNIVERSITY PARK MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The one hundred twenty-ninth meeting of the Institute of Mathematical Statistics was held at the Pennsylvania State University, University Park, on April 21-23, 1971. The meeting was held in conjunction with meetings of the Biometric Society and the Section on Physical and Engineering Sciences of the American Statistical Association. One hundred and seventy-one members of the Institute registered for the meeting. There were thirty-eight contributed papers presented in person. Abstracts of these papers appear in earlier issues of the *Annals*. The following invited papers were presented.

Statistical Problems in Sampling and Human Behavior

1. "Biases in Panel Survey," Colin L. Mallows and W. H. Williams, Bell Telephone Laboratories.
2. "Matching to Remove Bias in Observational Studies," Donald B. Rubin, Harvard University.
3. "Some Recent Developments in Randomized Response," Daniel G. Horvitz, Research Triangle Institute.

Stochastic Processes

4. "Embedding Right-Continuous Martingales in Brownian Motion," Itrel Monroe, Dartmouth College.
5. "Applications of the Weak Convergence Theory for Probability Measures on Function Spaces," Ward Whitt, Yale University.

6. "On Multitype Branching Processes in Random Environment with Immigration," I. N. Shimi and David W. Fairweather, Florida State University.
7. "The Exit Measure of a Super-Martingale," Hans Föllmer, Dartmouth College.

Robustness

8. "Robust Statistics," Peter Huber, Swiss Federal Institute of Technology, Zurich, and Princeton University.
9. "Linear Estimation of the Location Parameter of a Symmetric Distribution," James J. Fillibin, National Bureau of Standards.
10. "On the Effect of Dependence on 'Robust' Statistical Methods," Joseph L. Gastwirth, The Johns Hopkins University and Harvard University.

The Relevance of Statistics to Today's Problems

11. "Subjective vs. Objective Methods in Statistics," C. R. Blyth, University of Illinois.
12. "Topics Relating to t -Statistics," R. A. Olshen, Columbia University.
13. "Statistics and Today's Problems," I. J. Good, Virginia Polytechnic Institute.

The Statistical and Distributional Theory of Many Variables

14. "A Random-Beta Extension of the Gauss-Markov Theorem," David B. Duncan and Susan D. Horn, The Johns Hopkins University.
15. "Methods of Assessing Multivariate Normality," David Andrews, Bell Telephone Laboratories and Princeton University, and R. Gnanadesikan and J. Warner, Bell Telephone Laboratories.
16. "Probability Models for Size and Shape Variables," James Mosimann, DCRT, National Institutes of Health.

Probability Theory

17. "Markov Processes with Measurable Sample Functions," K. Ito, Cornell University.
18. "What kind of Mathematical Probability Do You Want?" Leonard J. Savage, Yale University.

The program committee consisted of Leon J. Gleser (chairman), Joseph L. Gastwirth, Samuel W. Greenhouse, John Lamperti, Colin L. Mallows, G. P. Patil, J. Sethuraman, and Howard M. Taylor, III. The secretaries for the meeting were Robert V. Hogg (program), Myles Hollander (associate), and Thomas P. Hettmansperger (assistant).

MYLES HOLLANDER,
Associate Secretary.

**COMPUTER SCIENCE AND STATISTICS: FIFTH ANNUAL SYMPOSIUM
ON THE INTERFACE****OKLAHOMA STATE UNIVERSITY, NOVEMBER 1 AND 2, 1971**

A two-day meeting will be held at Stillwater, Oklahoma, open to all those who are interested in the relationships between computer science and statistics. The keynote speaker will be H. O. Hartley of Texas A & M University. Concurrent workshops will be conducted in five areas:

Time Series and Stochastic Processes: Emanuel Parzen, State University of New York, Buffalo.

Decision Sciences: Dennis Grawoig, Georgia State University, Atlanta.

Compumetrics: Robert Gordon, University of California, Irvine.

Computer Science and Statistics in Higher Education: J. L. Folks, Oklahoma State University and Ron Mohler, University of Oklahoma.

Computer Science and Statistics in the Extractive Industries.

This national conference is being held under the joint co-sponsorship of Oklahoma State University, the University of Oklahoma, North Texas State University and the University of Tulsa, and certain industrial firms in the mid-continent region. Additional information may be obtained from the conference chairman, Dr. Mitchell O. Locks, Oklahoma State University, Stillwater, Oklahoma, 74074.

**CALL FOR SUBMISSIONS FOR SELECTED TABLES IN MATHEMATICAL
STATISTICS, VOLUME II**

The Committee on Mathematical Tables of the Institute of Mathematical Statistics is now accepting submissions for Volume II of "Selected Tables in Mathematical Statistics." The first volume of this series was published by Markham Publishing Company and released in August 1970. Complete instructions to authors submitting material for publication may be found on pages v and vi of Volume I. There are no fixed upper and lower limits on length of tables, however, authors should be aware that the purpose of this series is to provide an outlet for tables of high quality and utility which are too long to be accepted by a technical journal but too short for separate publication in book form.

Further information may be obtained by contacting either co-editor at the addresses listed below. Authors having tables they wish to submit should send two copies to Dr. Harter and a third copy to Dr. Owen.

Dr. H. Leon Harter, Co-editor,
Aerospace Research Laboratories,
Wright-Patterson AFB, Ohio 45433.

Dr. D. B. Owen, Co-editor,
Department of Statistics,
Southern Methodist University,
Dallas, Texas 75222.