

## NEWS AND NOTICES

*Readers are invited to submit to the Secretary of the Institute news items of interest*

### Personal Items

Helen Bozivich, Research Associate in the Statistical Laboratory of Iowa State College, has accepted a position at Purdue University as Assistant Professor in its Statistical Laboratory beginning July 1, 1955. She was awarded the degree of Doctor of Philosophy in statistics by Iowa State College in June, based partly on a dissertation, "Power of test procedures for certain incompletely specified random and mixed models."

Edward C. Bryant received a Ph.D. degree in statistics in June 1955 from the Department of Statistics, Iowa State College, his thesis being entitled "An analysis of some two-way stratifications." Dr. Bryant is Associate Professor and Chairman of the Department of Statistics at the University of Wyoming.

D. R. Cox, of the Statistical Laboratory, University of Cambridge, spent July and August, 1955, as a Research Associate in the Section of Mathematical Statistics, Princeton University, and then took the post of Visiting Professor in the Department of Biostatistics, School of Public Health and in the Institute of Statistics, University of North Carolina, Chapel Hill.

Dr. H. A. David has resigned from his position with the Commonwealth Scientific and Industrial Research Organization of Australia to take up a Senior Lectureship in Statistics in the University of Melbourne.

Professor Wilfrid J. Dixon has accepted a position as Professor of Biostatistics at the Medical School, University of California at Los Angeles.

Upon completion of basic training at Camp Chaffee, Arkansas, Charles E. Gates was assigned as "Statistics Assistant" to Board No. 2, 8576DU, GONARC, Fort Knox, Kentucky.

Irwin Guttman has received his Ph.D. from the University of Toronto, and has been appointed as an Assistant Professor of Statistics on the staff of the University of Alberta.

W. J. Hall has received a commission in the United States Public Health Service and is stationed at present at the Communicable Disease Center in Atlanta, Georgia.

John F. Hofmann, Chief Statistician of the Naval Ordnance Laboratory at Corona, California, was granted a Ph.D. degree in statistics by Iowa State College in June, 1955. His dissertation concerned "Life testing in controlled environmental conditions."

William Kruskal (Committee on Statistics, University of Chicago) is a visiting faculty member at the Department of Statistics, University of California, Berkeley, during the 1955-1956 academic year.

William G. Madow is a Visiting Professor of Statistics at the Department of Statistics, Stanford University, Stanford, California during the academic year 1955-1956.

Richard B. McHugh has been promoted to Associate Professor at Iowa State College effective July 1, 1955. He holds a joint appointment in the Department of Psychology and the Department of Statistics.

Professor J. E. Morton has resigned from Cornell University and has accepted a position as Chief Statistician and Head, Office of Special Studies with the National Science Foundation in Washington, D. C.

Dr. D. V. Newton, formerly with the Applied Physics Laboratory, University of Washington, has joined the Applied Science Division of the International Business Machine Corporation.

Gottfried E. Noether of Boston University has been promoted to Associate Professor.

Dr. George W. Petrie was recently promoted to the position of Manager of the Programming Research and Development Department on the Electronic Data Processing Machines Division of IBM. The department is located with the Research Laboratory at Poughkeepsie, New York.

Dr. Benjamin J. Tepping has resigned his position as Mathematical Statistician in the Bureau of the Census to join the staff of National Analysts, Inc., Philadelphia, Pennsylvania where he will work on operations research problems.

Dr. W. R. Van Voorhis, Professor of Mathematics at Fenn College, has been appointed Chairman of the Department.

Eugene F. Witeck, formerly with Boeing Airplane Company, Seattle, Washington, is now a Quality Control Engineer with the Sandia Corporation, Albuquerque, New Mexico.

Wassily Hoeffding is a Visiting Associate Professor of Mathematical Statistics in Columbia University, New York, N. Y., during the Winter Session, 1955-56.

Martin B. Wilk, appointed Assistant Professor in the Statistical Laboratory at Iowa State College last April, is on leave for one year beginning July 1, 1955, for basic research at Princeton University under an Office of Naval Research contract in the statistics section of the Department of Mathematics. Prof. Wilk completed requirements for a Ph.D. degree in statistics at Iowa State College in June 1955, with a thesis on "Linear models and randomized experiments."

---

### Preliminary Actuarial Examinations Prize Awards

The winners of the prize awards offered by the Society of Actuaries to the nine undergraduates ranking highest on the score of Part 2 of the 1955 Preliminary Actuarial Examination are as follows:

First Prize \$200

Adler, David ..... Rensselaer Polytechnic Institute

Additional Prizes of \$100

Harris, Glen A., Jr. . . . .	Yale University
Horn, William A. . . . .	University of Cincinnati
McCullough, Roger S. . . . .	University of Toronto
Mitchell, Barry M. . . . .	University of Toronto
Moskowitz, Lester. . . . .	Brooklyn College
See, Gary N. . . . .	University of Michigan
Sprung, Donald W. L. . . . .	University of Toronto
Walton, Charles K. . . . .	University of Toronto

The Society of Actuaries has authorized a similar set of nine prizes for the 1956 examinations on Part 2.

The Preliminary Actuarial Examinations consist of the following three examinations:

- Part 1. Language Aptitude Examination. (Reading comprehension, meaning of words and word relationships, antonyms, and verbal reasoning.)
- Part 2. General Mathematics Examination. (Algebra, trigonometry coordinate geometry, differential and integral calculus.)
- Part 3. Special Mathematics Examination. (Finite differences, probability and statistics.)

The 1956 Preliminary Actuarial Examinations will be prepared by the Educational Testing Service and will be administered by the Society of Actuaries at centers throughout the United States and Canada on May 9, 1956 (tentative date). The closing date for application is March 15, 1956.

Detailed information concerning the Examinations can be obtained from:

The Society of Actuaries  
208 South LaSalle Street  
Chicago 4, Illinois



**New Members**

*The following persons have been elected to membership in the Institute*

May 12, 1955 to August 5, 1955

- Addelman, Sidney**, B.A. (Carleton College), Graduate Teaching Assistant, University of Delaware, Newark, Delaware.
- Ahmed, M. Salahuddin**, M.A. (Osmania Univ.), Teaching Assistant, Statistical Laboratory, University of California, Berkeley 4, California.
- Cyert, Richard M.**, Ph.D. (Columbia Univ.), Associate Professor of Economics, Carnegie Institute of Technology, Pittsburgh 13, Pennsylvania.
- Ellison, Bob E.**, Student, University of Chicago, 5801 Ellis Avenue, Chicago 37, Illinois.
- Estes, William K.**, Ph.D. (Univ. of Minn.), Professor of Psychology, Indiana University, Bloomington, Indiana.
- Friedman, Lawrence**, M.A. (Chicago Univ.), Research Assistant, Operations Research, Case Institute of Technology, Cleveland, Ohio, 2724 Mayfield, Cleveland Heights, Ohio.

- Gammon, Edward R.**, M.A. (Univ. of Oregon), Mathematician, Northrop Aircraft, Hawthorne, California, *2821 Bayview Drive, Manhattan Beach, California.*
- Gautschi, Werner**, Ph.D. (Univ. of Basel), Research Fellow, Statistical Laboratory, Department of Mathematics, University of California, Berkeley, California.
- George, Aleyamma** (Miss), M.A. (Univ. of Travancore), Statistical Laboratory, University of Travancore, Trivandrum, Travancore.
- Gepfert, Alan H.**, M.S. (Case Inst. of Tech.), Operations Research Analysis, Research Assistant, Project Doan Brook, Case Institute of Technology, University Circle, Cleveland 6, Ohio, *3525 Washington Boulevard, Cleveland Heights 18, Ohio.*
- Hesse, Herbert**, M.S. (Univ. of Chicago), Student, Committee on Statistics, University of Chicago, Chicago 37, Illinois, *444 West 98th Place, Chicago 28, Illinois.*
- Hinkle, M. L., Jr.**, M.S. (Purdue Univ.), Student, Purdue University, Lafayette, Indiana, *603 West 4th Street, Marion, Indiana.*
- Katz, Melvin, Jr.**, B. S. (Calif. Inst. of Tech.), Graduate Student, University of California, Statistical Laboratory, Berkeley 4, California.
- King, Kenneth R.**, M.A. (Univ. of Colorado), Graduate Student, Purdue University, West Lafayette, Indiana, *812 Vine Street, West Lafayette, Indiana.*
- Lee, I. M.**, Ph.D. (Iowa State College), Associate Professor of Agricultural Economics, University of California, Berkeley 4, California, *207 Giannini Hall, University of California, Berkeley 4, California.*
- Mitra, Sujit Kumar**, M. Sc. (Calcutta), Research Assistant, Department of Statistics, University of North Carolina, Phillips Hall, Chapel Hill, North Carolina.
- Naddor, Eliezer**, M.S. (Columbia Univ.), Research Associate, Operations Research Group, Case Institute of Technology, 10900 Euclid Avenue, Cleveland 6, Ohio.
- Nag, S. K.**, M.Sc. (Allahabad Univ.), Research Officer, Bihar Institute of Hydraulic and Allied Research, Mamal Road, Patna, India.
- Pai, Mangalore Vasudeva**, M.A. (Madras Univ.), Research Student, Statistical Laboratory, Engineering Administration Building, Purdue University, West Lafayette, Indiana.
- Robson, Douglas S.**, Ph.D. (Cornell Univ.), Assistant Professor, Biometrics Unit, Cornell University, Ithaca, New York.
- Sherman, Gordon R.**, M.S. (Stanford Univ.), Research Assistant, Statistical Laboratory, Purdue University, West Lafayette, Indiana.
- Shroyer, Robert J.**, B.S. (Univ. of Dayton), Graduate Student, Statistical Laboratory, Purdue University, Lafayette, Indiana.
- Siddiqui, M. M.**, M.A. (American Univ.), Senior Lecturer, Panjab University, Department of Statistics, Panjab University, Lahore, Pakistan, *Institute of Statistics, University of North Carolina, Chapel Hill, North Carolina.*
- Sterling, Theodor D.**, Ph.D., (Tulane Univ.), Assistant Professor, University of Alabama, University, Alabama, *P.O. Box 3187, University, Alabama.*
- Storm, Leo E.**, B.A. (Oklahoma A. and M. College), Mathematician, Aerial Measurements Laboratory, Northwestern University, 2422 West Oakton Street, Evanston, Illinois, *6720 South Jeffrey Boulevard, Chicago 49, Illinois.*
- Sudman, Seymour**, B.S. (Roosevelt College), Analytical Statistician, Market Research Corporation of America, 425 North Michigan Avenue, Chicago 11, Illinois, *2633 East 74th Street, Chicago 49, Illinois.*
- Thomas, Alan T.**, M.S. (Univ. of Louisville), Research Engineer, Brown-Forman Distillers Corporation, P.O. Box 1080, Louisville, Kentucky, *R.R. No. 8, Box 26, Louisville, Kentucky.*
- Walpole, R. E.**, M.A. (McMaster Univ.), Student, Virginia Polytechnic Institute, Blacksburg, Virginia.
- Yaspan, Arthur J.**, M.S. (Univ. of Chicago), Instructor, Department of Mathematics, Western Reserve University, Cleveland, Ohio, *1553 Knuth Avenue, Euclid, Ohio.*

## REPORT OF THE BERKELEY MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The sixty-sixth meeting, a Western Regional meeting, of the Institute of Mathematical Statistics was held at the University of California, Berkeley, California, on July 14–16, 1955. The meeting was held in conjunction with the Third Berkeley Symposium on Mathematical Statistics and Probability. There was a joint dinner with the Symposium on Thursday night and a beer party on Friday night.

The following 77 members of the Institute attended:

G. A. Baker, M. S. Bartlett, G. E. Bates, C. B. Bell, J. J. Birch, A. Birnbaum, Z. W. Birnbaum, D. Blackwell, C. Boll, A. H. Bowker, R. N. Bradt, J. V. Breakwell, C. L. Chiang, K. L. Chung, K. G. Clemans, A. Court, E. L. Crow, R. C. Davis, J. L. Doob, R. Dorfman, A. J. Duncan, M. Dwass, J. R. Eklind, M. Elveback, B. Epstein, E. A. Fay, T. S. Ferguson, R. Fortet, E. Fix, M. Fox, W. Gautschi, E. J. Gilbert, G. H. Golub, G. Gregory, T. E. Harris, J. L. Hodges, Jr., W. Hoeffding, W. W. Hoy, J. P. Imhof, Kiyso Ito, Koichi Ito, S. Karlin, W. M. Kincaid, H. S. Konijn, C. H. Kraft, M. Krakowski, W. Kruskal, L. LeCam, E. L. Lehmann, G. J. Lieberman, D. V. Lindley, W. G. Madow, A. M. Mood, J. Neyman, D. B. Owen, J. Pachares, R. R. Read, G. J. Resnikoff, M. Rosenblatt, A. R. Roy, H. Rubin, J. S. Rustagi, M. Sandomire, I. R. Savage, H. Scheffé, L. Schwartz, E. L. Scott, A. Shapiro, G. P. Steck, C. Stein, M. D. Stein, W. F. Taylor, D. R. Truax, H. G. Tucker, J. Walsh, A. Wiggins, O. Wesler.

The program of the meeting was as follows:

### THURSDAY, JULY 14, 1955

#### 9:30–10:30 a.m. Invited Address

Chairman: JOSEPH L. DOOB, University of Illinois

- (1) *A Gaussian Random Function of a Point of Hilbert Space*, PAUL LÉVY, L'École Polytechnique.

#### 10:45–11:45 a.m. Recent Results in Large Sample Theory

Chairman: ALLAN BIRNBAUM, Columbia University and Stanford University.

- (1) *Concepts of Consistency in Relation to Estimates Obtainable as Solutions of Certain Equations*, CHARLES KRAFT and LUCIEN LECAM, University of California.
- (2) *Distribution of  $\chi^2$  for Random Classes*, A. R. ROY, Department of Agriculture, India, and Stanford University.

#### 1:30–3:30 p.m. Invited Addresses

Chairman: HENRY SCHEFFÉ, University of California

- (1) *Stochastic Processes, Statistical Inference and the Specification Problem*, M. S. BARTLETT, University of Manchester.
- (2) *Statistical Applications of General Random Elements*, ROBERT FORTET, Institut Henri Poincaré.

**3:45–5:00 p.m. Contributed Papers, I**

Chairman: GEORGE A. BAKER, University of California at Davis

- (1) *Nonparametric Mean Estimation of Percentage Points and Density Function Values*, JOHN E. WALSH, Lockheed Aircraft.
- (2) *On the Concept of Probability in Quantum Mechanics*, A. O. BARUT, Stanford, Sponsored by M. Loève.
- (3) *Two-Sample Estimates of Prescribed Precision (Preliminary Report)*, ALLAN BIRNBAUM, Columbia University and Stanford University.
- (4) *Minimax Test for the Parameter of a Poisson Process*. J. V. BREAKWELL, North American Aviation, Inc.
- (5) *Distribution of a Definite Quadratic Form in Non-Central Normal Variates*, JAMES PACHARES, Hughes Aircraft Company.
- (6) *Errors in Normal Approximations to Certain Types of Distribution Functions (By Title)*, J. T. CHU, University of North Carolina.
- (7) *Estimation of the Parameters of the One- and Two-Parameter Single Exponential Distributions from Singly and Doubly Censored Samples (By Title)*, A. E. SARHAN and B. G. GREENBERG, University of North Carolina.
- (8) *The Joint Distribution of Serial Correlation Coefficients (By Title)*, G. S. WATSON, Australian National University.

**FRIDAY, JULY 15, 1955****11:30 a.m.–1:30 p.m. Invited Addresses**

Chairman: A. M. MOOD, General Analysis Corporation.

- (1) *A New Monte Carlo Technique Depending on the Use of Negative Correlations*, J. M. HAMMERSLEY, Oxford University.
- (2) *Comparison of Experiments and Information Theory*, D. V. LINDLEY, University of Cambridge and Stanford University.

**2:00–3:00 p.m. Invited Address**

Chairman: EVELYN FIX, University of California.

- (1) *Fluctuation in the Transparency of Photographic Films* A. J. L. BLANC-LAPIERRE, Université d'Alger.

**3:15–5:00 p.m. Recent Results in Decision Theory**

Chairman: WILLIAM G. MADOW, University of Illinois.

- (1) *Stochastic Decision Processes and Dynamic Programming*, R. E. BELLMAN, The RAND Corporation.
- (2) *A Modified Minimax Principle*, OSCAR WESLER, Stanford University.
- (3) *Further Results on Decision Theory for Polya Type Distributions*, SAMUEL KARLIN, California Institute of Technology and Stanford University.

**SATURDAY, JULY 16, 1955****9:30–10:30 a.m. Invited Address**

Chairman: DAVID BLACKWELL, University of California.

- (1) *On the Use of the U-Statistic*, Z. W. BIRNBAUM, University of Washington.

**11:00–12:00 a.m. Contributed Papers, II**

Chairman: ALBERT H. BOWKER, Stanford University.

- (1) *On Tests of Certain Hypotheses Invariant Under the Full Linear Group* (Preliminary Report), CHARLES M. STEIN, Stanford University.
- (2) *Asymptotic Formulae for the Distribution of Hotelling's Generalized  $T^2$  Statistic*, KOICHI ITO, University of North Carolina.
- (3) *Asymptotic Distribution of Maximum Likelihood Estimates in Factor Analysis in the Loading-Normalized Case*, HERMAN RUBIN, Stanford University.
- (4) *A Run Test of the Hypothesis that the Median of a Stochastic Process is Constant*, T. S. FERGUSON and CHARLES H. KRAFT, University of California.
- (5) *Analysis of Dispersion on a Sphere* (By Title), G. S. WATSON, The Australian National University.
- (6) *Convergence in Distribution and Fourier-Stieltjes Transforms of Random Functions* (By Title, Preliminary Report), EMANUEL PARZEN, Columbia University.
- (7) *On the Statistical Analysis of Markov Chains* (By Title, Preliminary Report), LEO A. GOODMAN, University of Chicago.
- (8) *Convergence Properties of Elements of a Certain Class of Stochastic Approximation Processes, Continued* (By Title), DONALD L. BURKHOLDER, University of North Carolina.

CHARLES H. KRAFT  
Assistant Secretary

---

**REPORT OF THE ANN ARBOR MEETING OF THE INSTITUTE OF  
MATHEMATICAL STATISTICS**

The sixty-seventh meeting, and seventeenth summer meeting, of the Institute of Mathematical Statistics was held at the University of Michigan, Ann Arbor, Michigan, on August 30–September 2, 1955. The meeting was in conjunction with the summer meetings of the American Mathematical Society, the Mathematical Association of America, the Association for Symbolic Logic, the Econometric Society, and the Society for Industrial and Applied Mathematics. A Special Invited Paper entitled *Statistical Problems in Genetics* was presented by Howard Levene, Columbia University; and a Special Invited Paper entitled *Alternate Models for the Analysis of Variance* was presented by Henry Scheffé, University of California.

The following 125 members of the Institute attended:

Om P. Aggarwal, G. E. Albert, W. R. Allen, C. B. Allendoerfer, R. L. Anderson, T. W. Anderson, K. J. Arnold, K. J. Arrow, J. L. Bagg, R. E. Beckwith, T. G. Birdsall, David Blackwell, C. R. Blyth, Herman Chernoff, A. G. Clark, A. B. Clarke, T. F. Cope, A. H. Copeland, Sr., L. J. Cote, L. M. Court, C. C. Craig, J. H. Curtiss, D. A. Darling, H. T. David, E. L. Diamond, J. L. Doob, David Durand, P. S. Dwyer, Marjorie J. Easterbrook, Churchill Eisenhart, H. P. Evans, C. H. Fischer, J. Sutherland Frame, Lawrence Friedman, T. C. Fry, H. M. Gehman, J. W. Gilmore, W. A. Golomski, J. A. Greenwood, T. N. E. Greville, Paul Gunther, J. W. Hamblen, P. C. Hammer, J. F. Hannan, H. L. Harter, H. O.

Hartley, Clifford Hildreth, R. V. Hogg, W. C. Hood, A. S. Householder, Paul Irick, Walter Jacobs, E. H. Jebe, Mark Kac, Samuel Karlin, Leo Katz, M. B. Keats, J. H. B. Kemperman, W. M. Kincaid, Leslie Kish, L. A. Knowler, T. C. Koopmans, S. Kullback, D. E. Lamphiear, Marguerite Lehr, R. A. Leibler, F. C. Leone, Howard Levene, M. M. Lightstone, S. P. Lloyd, F. W. Lott, Mrs. Mary D. Lum, G. F. Lunger, Brockway McMillan, W. G. Madow, J. W. Mauchly, Paul Meier, D. F. Mela, D. M. Mesner, Robert Mirsky, Norman Morse, Frederick Mosteller, S. C. Moy, Mervin Muller, A. C. Nelson, Jr., C. J. Nesbitt, G. E. Nicholson, Jr., G. E. Noether, J. I. Northam, R. E. Odeh, E. G. Olds, Ingram Olkin, T. M. Oneson, Bernard Ostle, Toby Oxtoby, Emanuel Parzen, R. S. Pinkham, G. B. Price, Henry Quastler, Stanley Reiter, G. J. Resnikoff, P. R. Rider, Selby Robinson, Albert C. Rohloff, David Rosenblatt, Herman Rubin, R. W. Rutledge, Jerome Sacks, Esther B. Schaeffer, Henry Scheffé, Herbert Solomon, P. N. Somerville, F. A. Sorensen, Rothwell Stephens, T. Sterling, A. D. Stewart, Zenon Szatrowski, R. M. Thrall, C. K. Tsao, A. W. Tucker, J. W. Tukey, J. B. Tysver, S. S. Wilks, J. Wolfowitz, Max Woodbury.

The program of the meeting was as follows:

### TUESDAY, AUGUST 30, 1955

#### 9:00 a.m. Information Theory

Chairman: Henry Quastler, University of Illinois

- Papers:
1. *Probability and Statistics in Communications*, Brockway McMillan, Bell Telephone Laboratories.
  2. *The Coding Problem in Information Theory*, David Slepian, Bell Telephone Laboratories.
  3. *The Distribution of Sample Information Functions*, Herbert T. David, University of Chicago.

Discussion: J. L. Doob, University of Illinois

W. G. Madow, University of Illinois

#### 1:30 p.m. The Use of Automatic Computers in Solving Statistical Problems

Chairman: Paul R. Rider, Wright Air Development Center

- Paper: *Standard Programs for the Varied Problems in Statistical Analysis*, H. O. Harley, Iowa State College.

#### 3:30 p.m. Contributed Papers I

Chairman: Louis Cote, Purdue University

- Papers:
1. *Distribution of the  $m$ -th Range*, J. Arthur Greenwood, Manhattan Life Insurance Company.
  2. *Approximation to the Distribution of the Sum of Cosines of Random Angles (Preliminary Report)*, David Durand, Massachusetts Institute of Technology, and J. Arthur Greenwood, Manhattan Life Insurance Company.
  3. *Crystalline Connectivity*, J. M. Hammersley, University of Oxford, (introduced by W. H. Kruskal, University of California).
  4. *Distributions of Roots of Algebraic Equations with Variable Coefficients*, John W. Hamblen, Oklahoma Agricultural and Mechanical College.
  5. *On a Modified Sum of Poisson Processes*, A. Bruce Clarke, University of Michigan.

#### 7:30 p.m. Council meeting. Institute of Mathematical Statistics

Presiding: Henry Scheffé, University of California



**WEDNESDAY, AUGUST 31, 1955****9:00 a.m. Decisions under Uncertainty (Co-sponsored with the Econometric Society)**

Chairman: J. Wolfowitz, Cornell University

- Papers: 1. *Foundations of a Stochastic Theory of Organizations*, David Rosenblatt, American University.  
 2. *The Use of Probability Forecasts in Making a Sequence of Decisions under a Quadratic Criterion*, Herbert Simon, Carnegie Institute of Technology.

Discussion: Stanley Reiter, Purdue University, Max Woodbury, George Washington University

**11:00 a.m. Special Invited Paper**

Chairman: Leo Katz, Michigan State University

Paper: *Statistical Problems in Genetics*, Howard Levene, Columbia University

**1:30 p.m. Contributed Papers II**

Chairman: Donald Darling, University of Michigan

- Papers: 1. *A Method of Constructing Nonparametric Multivariate Tests (Preliminary Report)*, T. W. Anderson, Columbia University.  
 2. *Confidence Intervals for a Measure of Effectiveness (Preliminary Report)*, Gottfried E. Noether, Boston University.  
 3. *Truncated Binomial and Negative Binomial Distributions*, Paul R. Rider, Wright-Patterson Air Force Base.  
 4. *Error Rates and Sample Sizes for Multiple Range Tests*, H. Leon Harter, Wright-Patterson Air Force Base.  
 5. *On Transient Markov Chains with a Countable Number of States*, David Blackwell, University of California.  
 6. *A z-transformation and a t-statistic for Serial Correlation Coefficients*, John S. White, University of Manitoba, (By title).  
 7. *Distance Tests with Good Power for the Nonparametric k-sample Problem*, J. Kiefer, Cornell University, (By title).  
 8. *Comparison of Populations Whose Growth Can Be Described by a Branching Stochastic Process*, A. T. Bharucha-Reid, Columbia University, (By title).

**THURSDAY, SEPTEMBER 1, 1955****9:00 a.m. Business meeting, Institute of Mathematical Statistics**

Presiding: Henry Scheffé, University of California

**4:00 p.m. Special Invited Paper**

Chairman: C. C. Craig, University of Michigan

*Alternate Models for the Analysis of Variance*, Henry Scheffé, University of California

**FRIDAY, SEPTEMBER 2, 1955****9:00 a.m. Recent Advances in Combinatorial Analysis.**

Chairman: H. B. Mann, Ohio State University

- Papers: 1. *Numerical Analysis of Combinatorial Designs*, Marshall Hall, Jr., Ohio State University.

2. *The Solution of Some Computational Problems in Combinatorial Analysis by High Speed Computing Machines*, Morris Newman, National Bureau of Standards.
3. *Systems of Distinct Representatives and Other Combinatorial Applications of Linear Programming*, A. J. Hoffman, Office of Naval Research and National Bureau of Standards, and H. W. Kuhn, Bryn Mawr College and Princeton University.
4. *Combinatorial Problems of Experimental Design*, R. C. Bose, University of North Carolina.

I thank Paul S. Dwyer, University of Michigan, for providing the above information.

WILLIAM KRUSKAL  
Associate Secretary

---

### PUBLICATIONS RECEIVED

- Censo de la Poblacion de España (1950)*, Vol. II, Instituto Nacional de Estadística, 1954, 493 pp.
- Statistical Theory of Extreme Values and Some Practical Applications*, by E. J. Gumbel, National Bureau of Standards Applied Mathematics Series 33, 51 pp., \$40. (Order from Government Printing Office, Washington 25, D. C.)

---

### INSTITUTIONAL MEMBERS

INTERNATIONAL BUSINESS MACHINES CORPORATION, New York  
 IOWA STATE COLLEGE, STATISTICAL LABORATORY, Ames, Iowa  
 MICHIGAN STATE COLLEGE, DEPARTMENT OF MATHEMATICS, East Lansing, Michigan  
 PRINCETON UNIVERSITY, DEPARTMENT OF MATHEMATICS, SECTION OF MATHEMATICAL STATISTICS, Princeton, New Jersey  
 PURDUE UNIVERSITY LIBRARIES, Lafayette, Indiana  
 STATE UNIVERSITY OF IOWA, Iowa City, Iowa  
 UNIVERSITY OF CALIFORNIA, STATISTICAL LABORATORY, Berkeley, California  
 UNIVERSITY OF ILLINOIS, Urbana, Illinois  
 UNIVERSITY OF NORTH CAROLINA, INSTITUTE OF STATISTICS, Chapel Hill, North Carolina  
 UNIVERSITY OF WASHINGTON, LABORATORY OF STATISTICAL RESEARCH, Seattle, Washington