NEWS AND NOTICES

Readers are invited to submit to the Treasurer of the Institute news items of interest.

Personal Items

Professor Arvil S. Barr of the University of Wisconsin died May 12th.

Harold Davis has joined the U. S. Arms Control and Disarmament Agency as a Military Systems Analyst.

Professor B. De Loor of the University of Pretoria, South Africa, died recently.

Dr. Marek Fisz, Associate Professor of the University of Warsaw, has been appointed Professor of Mathematics at New York University.

S. P. Ghosh joined the Statistics Section of the Thomas J. Watson Research Center, Yorktown Heights, New York, after completing his Ph.D. at the University of California, Berkeley.

Professor C. J. Shiue of the University of Minnesota Institute of Agriculture passed away on June 5, 1961.

Maurice Slud has joined the Astro-Electronics Division of the Radio Corporation of America at Princeton, New Jersey.

Dr. Clarence DeWitt Smith, Professor of Statistics, University of Alabama, retired June 1962, with status of Emeritus Professor.

Visiting Professor Dudley E. South has been appointed Professor, Department of Mathematics, Florida Presbyterian College, St. Petersburg.

Leo J. Storm has accepted a position as Operation Analyst, Weather System Center, United Aircraft Corporation, East Hartford, Connecticut. He was formerly Quality Control Supervisor, United Nuclear Corporation, New Haven.

Bryan Wilkinson has been appointed Technical Specialist in the Engineering Department of Gilfillan Corporation, Los Angeles, California. He was formerly Staff Engineer in the Computer Division of the Hughes Aircraft Company, Fullerton, California.

New Members

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

Abrahamson, Innis G., B.Sc., (University of Cape Town, South Africa); Student, University of Chicago; *1414 East 59th Street, Chicago 37, Illinois.*

Antle, Charles E., M.A., (Eastern Kentucky State College); Graduate Student, Oklahoma State University; *1620 University Avenue, Stillwater, Oklahoma.*

Armitage, Peter, Ph.D., (London University, England); Professor of Medical Statistics, London School of Hygiene and Tropical Medicine.

Becktel, Jack M., M.S., (University of Chicago); Student, University of Chicago; *3520 West Melrose Street, Chicago 18, Illinois.*

Bickel, Peter J., M.A., (University of California, Berkeley); Graduate Student, University of California, Berkeley, Department of Statistics.

Bossons, John D., A.M., (Harvard University); Assistant Professor of Finance, School of Industrial Management, Massachusetts Institute of Technology.

Bowen, Ernest W., M.A., (University of Melbourne); Lecturer in Department of Mathematics, University of Western Australia, Nedlands, Australia.

Boyle, Susan L., B.S., (Stanford University); Engineer, Philco Corporation Western Development Laboratories, 3875 Fabian Way, Palo Alto, California.

Bramhall, Janet M., A.A., (George Washington University); Associate Programmer, Johns Hopkins University, Applied Physics Laboratory, 8621 Georgia Avenue, Silver Spring, Maryland.

Butler, S. Christine, B.A., (Swathmore College); Student, Department of Statistics, Stanford University; *1035 Oakland Avenue, Menlo Park, California.*

Chase, Gerald R., B.S., (Beloit College, Wisconsin); Graduate Student, Department of Statistics, Stanford University; *480 Oxford Avenue, Palo Alto, California.*

Chow, Bryant, M.S., (Rutgers–the State University); Graduate Student, Virginia Polytechnic Institute; *C 1 Draper's Meadow Terrace, Blacksburg, Virginia.*

Cigler, Johann E., Ph.D., (Universität Wien); Assistant, Mathematisches Institut der Universität Wien, Wien IX, Studlhofgasse 4, Austria.

Cleroux, Robert A., B.Sc., (Université de Montréal); Graduate Student, Université de Montréal, Post Office Box 6128, Montreal 26, Quebec, Canada.

Daley, Daryl J., B.A., (University of Melbourne); Research Student, University of Melbourne, Parkville, N. 2, Victoria, Australia; *30 Mount Ida Avenue, Hawthorn East, E. 3, Victoria, Australia.*

Darroch, John N., Ph.D., (University of CapeTown); Lecturer in Mathematical Statistics, University of Manchester, Department of Mathematics, Manchester 13, England.

Efron, Bradley, B.S., (California Institute of Technology); Graduate Student, Department of Statistics, Stanford University; *Box 6923, Stanford, California.*

El-Kafrawy, Mohamed M., B.Sc., (Cairo University); Graduate Student, Department of Mathematical Statistics, Columbia University; *International House, 500 Riverside Drive, New York 27, New York.*

Ferrer, Restituto, L. C. E., (Universidad de Barcelona, Spain); Professor of Mathematics, Universidad del Zulia, Maracaibo, Venezuela; *Post Office Box 2761, Stanford, California.*

Folk, Earl D., B.S., (Oklahoma State University); Research Assistant, Department of Statistics, Kansas State University, Manhattan, Kansas.

Foster, Louis A., M.S., (Purdue University); Graduate Student, Purdue University.

Frank, Peter, Ph.D., (Columbia University); Assistant Professor, Department of Mathematics, Syracuse University, Syracuse, New York.

Fromovitz, Stan, M.A., (University of Toronto); Graduate Student, Stanford University; *Post Office Box 2227, Stanford, California.*

Gastwirth, Joseph L., M.A., (Princeton University); Graduate Student, Department of Mathematical Statistics, Columbia University; *99-57 62nd Drive, Rego Park 74, Queens, Long Island, New York.*

Gebhardt, Friedrich, Dr. rer., nat., (Universitat Munchen); Universitat Tubingen, *74 Tubingen, Schwalbenweg 43, Germany.*

Graves, Glenn W., M.A., (Michigan State University); Assistant, Statistical Research Laboratory, University of Michigan; *838 Stimson, Ann Arbor, Michigan.*

Gulati, Bodh R., M.S., (University of Illinois); Assistant, Department of Mathematics, University of Illinois; *808 South Fifth, Champaign, Illinois.*

Haggstrom, Gus W., M.A., (University of Illinois); Graduate Student, University of Illinois; *1831 Orchard Place, Urbana, Illinois.*

Halkin, Hubert, Inge'nieur Physicien, (Universite de Liege, Belgium); Graduate Student, Department of Mathematics, Stanford University; *601 Melville, Palo Alto, California.*

Harrington, Leigh, Student (Stanford University); *Box 3709, Stanford, California.*

Himmelblau, David M., Ph.D., (University of Washington); Associate Professor, University of Texas, Austin 12, Texas; *4609 Ridge Oak Drive, Austin 3, Texas.*

Hinderer, Karl F., Dr. rer. nat., (Stuttgart); Research Fellow, *Department of Statistics, University of California, Berkeley.*

Huang, David S., Ph.D., (University of Washington); Assistant Professor of Economics, *University of Texas, Austin 12, Texas.*

Ishii, Goro, B.Sc., (Osaka University, Japan); Lecturer in Mathematical Statistics, *Department of Mathematics, Osaka City University, Minamiogimachi Kita-ku, Osaka, Japan.*

Ishikawa, Eisuke, (Tohoku University); Assistant Professor, Gakugei Faculty of the Iwate University, Ueda, Moriokashi, Japan; *31 Sekiguchi, Moriokashi, Japan.*

Isono, Osamu, M. C.SC., (Tokyo University of Commerce, Japan); Professor, Faculty of Economics, *Hitotsubashi University, Kunitachi, Kitatama, Tokyo, Japan.*

John, Floyd I., Ph.D., (Purdue University); Assistant Professor, Purdue University; *538 North Grant Street, West Lafayette, Indiana.*

Kang, Garfield, S.B., (Massachusetts Institute of Technology); Member of the Technical Staff, *Space Technology Laboratories, Inc., Post Office Box 95001, Los Angeles 45, California.*

Karreman, Herman F., Econ. Drs., (Netherlands School of Economics); Research Associate, *Econometric Research Program, Princeton University.*

King, James Alfred, M.B.A., (Columbia University); Second Vice President, United Mutual Life Insurance Company, 310 Lenox Avenue, New York 27, New York; *469 Crown Street, Brooklyn 25, New York.*

Kinney, John R., Ph.D., (University of Illinois); Staff Member, *Massachusetts Institute of Technology Lincoln Laboratories, Lexington 73, Massachusetts.*

Knox, Samuel R., Ph.D., (Virginia Polytechnic Institute); Chairman (and Professor), *Department of Mathematics, Millsaps College, Jackson, Mississippi.*

Kogo, Kusunori, Assistant Professor, Department of Engineering, Kansai University; *708 Sukematsu, Izumiotsu City, Osaka, Japan.*

Lancaster, Leslie E., B.S., (University of Washington); Graduate Student, *University of Nebraska, Lincoln, Nebraska.*

Latzko, William J., M.B.A., (Rutgers-the State University); Senior Statistician, Columbia Record Club, 165 West 46th Street, New York, New York, *33 62nd Street, West New York, New Jersey.*

Laurino, Richard K., B.S., (University of California, Los Angeles); Operations Analyst, *Stanford Research Institute, Menlo Park, California.*

Lemmer, Hermanus H., M.Sc., (University of Pretoria, Republic of South Africa); Graduate Student, University of Pretoria; *999 Schoemanstreet, Arcadia, Pretoria, Republic of South Africa.*

Leppink, G. J., Ph.D., (State University Utrecht, Netherlands); Head, Statistics Department of the Central Organization for Applied Scientific Research in the Netherlands, *Jan Pieterszoon Coenstraat 22,'s-Gravenhage, The Netherlands.*

McKnight, Mrs. Blair A., B.A., (Stanford University); Graduate Student, Stanford University; *Serra House, Stanford, California.*

MacQueen, James B., Ph.D., (University of Oregon); Research Psychologist, *Western Management Science Institute, University of California, Los Angeles 24, California.*

Maltz, Frederick H., B.S., (University of California, Los Angeles); Senior Engineer, *Sylvania Electric Corporation, Box 188, Mountain View, California.*

Matusita, Kameo, D.Sc., (Tokyo University, Japan); Chief, the First Division, *The Institute of Statistical Mathematics, 1 Azabu Huzimi-tyo, Minato-ku, Tokyo, Japan.*

Midzuno, Hiroshi, M.Sc., (Tokyo Imperial University, Japan); Technical Advisor, Bureau of Statistics, Japanese Government, *95 Wakamatsucho, Shinjuku, Tokyo, Japan.*

Millhiser, William B., B.A., (Pennsylvania State University); Graduate Student, Stanford University; *424 Pope Street, Menlo Park, California.*

Morcovesco, Nicholas, M.A., (University of Pennsylvania); Pre-doctoral Fellow, University of Pennsylvania, Philadelphia 4, Pennsylvania; *4312 Walnut Street, Philadelphia 4, Pennsylvania.*

O'Hagan, Michael, M.S., (Stanford University); Graduate Student, Stanford University, *Escondido Village, Apt. 40 c, Stanford, California.*

Parris, Jr., George F., M.B.A., (University of California, Los Angeles); Graduate Student, Stanford University; *853 Tremaine Avenue, Los Angeles 5, California.*

Pease, Judith J., Student, Stanford University; *Box 2947, Stanford, California.*

Pederzoli, Giorgio, Laurea in Economics, (University of Parma, Italy); Graduate Student, Stanford University; *225 Addison Avenue, Palo Alto, California.*

Phillips, Richard E., M.A., (University of Kansas); Assistant Instructor/Graduate Student, *University of Kansas, Lawrence, Kansas.*

Pouch, Henry L., B.M.E., (General Motors Institute); Reliability Engineer, Ternstedt Division, General Motors Corporation, 3007 Van Dyke Avenue, Warren, Michigan; *19 Candler, Apt. 8, Highland Park 3, Michigan.*

Prèkopa, Andras, Dr. nat. Sc., (Hungarian Academy of Sciences); Associate Professor, Eötvös Lóránd University, Budapest VIII, Muzeum KRT 6–8 Hungary; *Mathematical Institute of the Hungarian Academy of Sciences, Budapest V, Rea'ltanoda V., 13–15, Hungary.*

Premo, Carolyn L., B.S., (Michigan State University); Graduate Assistant, University of Nebraska; *26880 Willowgreen, Franklin Village, Michigan.*

Press, James S., M.S., (University of Southern California); Graduate Student, Stanford University; *446 Wilton Avenue, Palo Alto, California.*

Ray, J. Patrick, M.S., (Virginia Polytechnic Institute); Research Statistician, Technology, Inc., 3090 Richfield Center, Dayton 40, Ohio; *Route 1, Box 438, Princeton, West Virginia.*

Reed, Allen H., M.S., (Institute of Mathematical Sciences, New York University); Statistician, *Space Technology Laboratories, Inc., Post Office Box 95001, Los Angeles 45, California.*

Roberts, Harry V., Ph.D., (University of Chicago); Professor of Statistics, *Graduate School of Business, University of Chicago, Chicago 37, Illinois.*

Sankaranarayanan, G., Ph.D., (Annamalai University, India); Reader in Mathematics, *Department of Mathematics, Annamalai University, Annamalainagar, Madras, India.*

Schmerl, Robert W., A.B., (San Francisco State College); Graduate Student, Stanford University; *1121 Bryant Street, ♯ 7, Palo Alto, California.*

Sherman, Elza J. H., S.B., (University of Chicago); Graduate Student, *Department of Statistics, University of Chicago, Chicago 37, Illinois.*

Shigeo, Iwasaki F., B.Sc., (Nagoya University, Japan); Mathematics Teacher, Nagano High School, Uematis-585, Nagano City, Japan; *Shinmachi-Taishidohri-605, Suzaka City, Nagano-ken, Japan.*

Sirull, Robert M., M.S.I.E., (Columbia University); Group Leader, Systems Analysis, AVCO Corporation, 201 Lowell Street, Wilmington, Massachusetts; *134 Boston Rock Road, Melrose, Massachusetts.*

Sobel, Matthew J., B.S., (Columbia University); Evaluation Engineer, U. S. Public Health Service, 321 Chestnut Street, Philadelphia 6, Pennsylvania, *3051 Sedgwick Avenue, New York 68, New York.*

Stadnitski, Robert K., A.M., (Columbia University); Systems Engineer, Radio Corporation of America, Moorestown, New Jersey; *65 C Parkway Apts., Haddonfield, New Jersey.*

Stein, Herman C., M.A., (Columbia University); Statistician, *International Business Machines, Dept. 584, Poughkeepsie, New York.*

Sugiura, Nariaki, B.S., (Tokyo University); Assistant, *Department of Mathematics, Osaka University, Nakanoshima, Osaka, Japan.*

Torrens-Ibern, Joachim, Dr. Ing. (Escuela Tecnica Sup., Barcelona, Spain); Professor of Statistics, Escuela Tecnica Superior, c. Urgel, 187, Barcelona 11, Spain; *c. Provenza, 420, Barcelona 13, Spain.*

Warner, Marshall R., B.S., (University of Kansas); *3707 Lindero Drive, Palo Alto, California.*

Webb, Steve, M.S., (University of Chicago); Graduate Student, *University of Chicago, Chicago 37, Illinois.*

Wehrfritz, Frank W., M.S., (Rutgers-the State University); Staff Engineer, Bayway Refinery, Esso Standard Division, Humble Oil & Refining Co., Post Office Box 222, Linden, New Jersey; *Box 416, Route 1, Martinsville, New Jersey.*

Weiss, Thomas F., M.S., (Massachusetts Institute of Technology); Research Assistant, *Massachusetts Institute of Technology, Room 20 B-221, Cambridge 39, Massachusetts.*

Whistler, Joseph Y., B.B.A., (University of Oklahoma); Graduate Student, Department of Statistics, Stanford University; *909 Inverness Way, Sunnyvale, California.*

Wiley, David E., A.B., (San Diego State College); Research Assistant, Department of Educational Psychology, University of Wisconsin, Madison, Wisconsin; *104 J Eagle Heights, Madison, Wisconsin.*

Winters, William K., B.S., (Utah State University); Graduate Research Assistant, Kansas State University; *804 Laramie Street, Manhattan, Kansas.*

Wood, John H., B.S., (University of Oklahoma); Senior Engineer, Sylvania Electronic Defense Laboratories, Mountain View, California/Graduate Student, Stanford University; *269 A Tyrella, Mountain View, California.*

Yeo, Geoffrey F., M.Sc., (University of Western Australia); Research Scholar, Department of Statistics, Institute of Advanced Studies, Australian National University, Box 4, G.P.O., Canberra, A.C.T.

Zwirner, Walter W., M.A., (University of Saskatchewan, Canada); Graduate Student, Stanford University; *Post Office Box 2130, Stanford, California.*

NEW STATISTICS DEPARTMENT AT JOHNS HOPKINS UNIVERSITY

The Johns Hopkins University has established a Department of Statistics in its Faculty of Philosophy. The new department will offer a curriculum leading to the Ph.D. in mathematical statistics. Dr. Geoffrey S. Watson has been named Professor of Mathematical Statistics in the department, and he will hold a joint appointment as Professor in the Department of Biostatistics of the School of Hygiene and Public Health. Drs. David B. Duncan and Allyn W. Kimball, currently professors in biostatistics, have also been named professors in the Department of Statistics. Additional appointments are expected in the near future.

The new department is recognized as essential for the expansion and strengthening of statistical research activities in all branches of the university. In order to ensure that the activities are coordinated and that maximum use is made of available resources, Dr. Kimball will serve as chairman of both departments. The Ph.D. in mathematical statistics now augments the Sc.M. and Sc.D. degree programs currently available in the Department of Biostatistics. In addition to those already mentioned, the biostatistics staff includes Drs. Margaret P. Martin, John J. Gart, Helen Abbey, Richard P. Bland, Earl L. Diamond, Mr. Victor Chew, and Dr. Norman T. J. Bailey, Visiting Professor from Oxford University.

Fellowships, made possible by a training grant from the National Institutes of Health, U.S.P.H.S., are available for students wishing to pursue studies in biostatistics, and it is expected that assistantships in the Department of Statistics will be available for the 1962–63 academic year. Further information about either program may be obtained by writing to Dr. Kimball at 615 North Wolfe Street, Baltimore 5, Md.

REGIONAL TECHNICAL REPORT CENTERS

The National Science Foundation and Department of Commerce have announced the establishment of twelve Regional Technical Report Centers in the

United States, at which will be deposited copies of technical reports of several U. S. Government research agencies. The Centers will furnish to the general public in their respective regions such services as personal reference, interlibrary loan, and photocopy service, to help make the results of Federally-sponsored research available to the scientific and technological communities.

The twelve centers will be at the Library of Congress, the Massachusetts Institute of Technology, Columbia University, the Carnegie Library of Pittsburgh, the Georgia Institute of Technology, the John Crerar Library in Chicago, the Southern Methodist University, the University of Colorado, the Linda Hall Library in Kansas City, Mo., the University of Washington, and the University of California, Berkeley and Los Angeles.

NSF SENIOR POSTDOCTORAL AND SCIENCE FACULTY FELLOWSHIPS

The National Science Foundation has announced the availability of some 150 senior postdoctoral and 350 science faculty fellowships, restricted to citizens or nationals of the United States, in a variety of fields including the mathematical sciences. Application materials may be obtained from the Fellowships Section, Division of Scientific Personnel and Education, National Science Foundation, Washington 25, D. C. Completed applications must be received not later than October 8, 1962.

DOCTORAL DISSERTATIONS

Readers are invited to submit information about current doctorates, for inclusion in the list to appear in the March issue. The list gives the doctor's name, institution, major subject, title of dlissertation, and year of award. To be included, the information should reach the Editor by December 20, 1962.

REPORT OF THE CHAPEL HILL, NORTH CAROLINA MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The ninetieth meeting of the Institute of Mathematical Statistics was held on the campus of the University of North Carolina at Chapel Hill, April 12–14, 1962, in conjunction with meetings of the Biometric Society (Eastern North American Region) and the Section on Physical and Engineering Sciences of the American Statistical Association.

A social hour, followed by a buffet supper, was arranged for Thursday evening, April 12.

There were 244 persons registered at the meetings, including 148 members of the IMS.

Thursday, April 12, 1962

9:30 a.m.—Applied Probability (ASA and SPES)

Chairman: H. S. KONIJN, Yale University and University of Sydney

  1. *Some Results Concerning Percolation Processes*, J. BISHIR, North Carolina State College.

2. *Random Polygons: The Generalization to Two Dimensions of the Intervals of a Poisson Process*, ROGER E. MILES, Cambridge University and Princeton University.

11:00 a.m.—Statistical Theory I (ASA and SPES)

Chairman: RICHARD POTTHOFF, University of North Carolina

1. *Dynamic Models for Contagious Data*, S. K. KATTI, Florida State University.
2. *Decision Theory Applied to a Missile Test Problem*, JOHN P. MAYBERRY, Operations Analysis Office, U.S.A.F.
3. *The Use and Analysis of Hierarchical Multivariate Analysis*, S. N. ROY AND J. N. SRIVASTAVA, University of North Carolina.

2:00 p.m.—The Theory of Queues

Chairman: GEORGE E. NICHOLSON, JR., University of North Carolina

1. *On the Maximum Size of a Queue*, C. R. HEATHCOTE, Australian National University and University of North Carolina.
2. *A Generalization of Classical Queueing Theory*, VINCENT HODGSON, Florida State University.
3. *Some Theory of Queues*, T. KAWATA, Catholic University.

3:30 p.m.—Contributed Papers I

Chairman: C. R. HEATHCOTE, Australian National University and University of North Carolina

1. *Speed Versus Accuracy in Measurement*, E. A. FAY AND ROY LEIPNIK, University of Florida and U. S. Naval Ordnance Test Station.
2. *Expectations and Covariances of Serial and Cross Correlation Coefficients in Complex Stationary Time Series*, DONALD F. MORRISON, National Institute of Mental Health.
3. *Asymptotic Expansions for Tests of Goodness of Fit for Linear Autoregressive Schemes*, K. C. CHANDA, Washington State University.
4. *The Distribution of Incubation Periods in a Birth-Death Process*, G. TREVOR WILLIAMS, Johns Hopkins University (Introduced by A. W. KIMBALL).
5. *Inventory Control Problem with Regular and Emergency Demand*, ROSHAN L. CHADDHA, Kansas State University.
6. *Queueing Times for an M/G/1 Queue with Poisson Type Breakdowns*, R. EMERSON THOMAS, University of North Carolina.
7. *On the Simultaneous Tests for Equality of Variances Against Certain Alternatives When the Samples Are Drawn from a Multivariate Normal Population* (Preliminary Report), P. R. KRISHNAIAH, Remington Rand Univac.

<div align="center">Friday, April 13, 1962</div>

8:30 a.m.—Contributed Papers II

Chairman: S. N. ROY, University of North Carolina

1. *A Method for the Derivation of Expected Mean Squares in the Analysis of Variance*, KLAUS ABT, U. S. Naval Weapons Laboratory.
2. *A Comparison of Three Different Procedures for Estimating Variance Components* (Preliminary Report), NORMAN BUSH, North Carolina State College.
3. *A Generalized MANOVA Model Useful Especially for Growth Curve Problems*, RICHARD F. POTTHOFF and S. N. ROY, University of North Carolina.
4. *Student's t in an n-way Classification with Unequal Variances* (Preliminary Report), KAY KNIGHT MAZUY and W. S. CONNOR, Research Triangle Institute.
5. *Minimal Sufficient Statistics for the Partially Balanced Incomplete Block Design with Two Associate Classes under an Eisenhart Model II*, C. H. KAPADIA, University of Georgia.

6. *Some Properties of Random Allocation Designs*, B. V. SHAH and O. KEMPTHORNE, Iowa State University.

10:30 a.m.—Stochastic Processes I

Chairman: JOHN TUKEY, Princeton University and Bell Telephone Laboratories

1. *A Probability Limit Theorem for Stable Distributions*, H. CRAMÉR, Stockholm University and Research Triangle Institute.
2. *Alterations in Markov Chains*, PETER FRANK, Syracuse University.
3. *Sharp Bounds for Semi-Continuous and Continuous Channels*, J. H. B. KEMPERMAN, University of Rochester.

2:00 p.m.—Contributed Papers III

Chairman: W. J. HALL, University of North Carolina

1. *On Successive Inferences and Their Multivariate Applications in Biometry*, CHOOICHIRO ASANO, Catholic University of America.
2. *The Effect of Cross-Class and Cross-Characteristic Errors in 2 x 2 Tables*, EARL L. DIAMOND, Johns Hopkins School of Hygiene and Public Health.
3. *Sequential Analysis of Hierarchical Classifications*, BHASKAR K. GHOSH, Lehigh University.
4. *A Modified Bayes Stopping Rule*, SIGMUND J. AMSTER, University of North Carolina.
5. *A Bayesian Indifference Rule* (Preliminary Report), MELVIN R. NOVICK, University of North Carolina.
6. *Some Results Concerning the Utility of an Active Standard in Screening Tests* (Preliminary Report), ALAN J. GROSS, National Institutes of Health.
7. *Simultaneous Confidence Intervals for the Dispersion Parameters* (Preliminary Report), W. A. THOMPSON, JR., National Bureau of Standards.
8. *Testing of Hypotheses Connected with a Certain Class of Patterns in the Population Dispersion Matrix*, S. N. ROY and J. N. SRIVASTAVA, University of North Carolina.

4:00 p.m.—Stochastic Processes II

Chairman: WALTER L. SMITH, University of North Carolina

1. *Problems in the Treatment of Group Dynamics as a Stochastic Process*, L. KATZ and T. N. BHARGAVA, Michigan State University and University of North Carolina.
2. *Green's Function Methods in the Study of Stochastic Processes*, JULIAN KEILSON, Sylvania Products.
3. *Congestion in Interconnected Systems*, R. SYSKI, University of Maryland.

8:00 p.m.—Foundations of Statistical Inference

Chairman: WASSILY HOEFFDING, University of North Carolina

1. *Tests of Goodness of Fit*, F. J. ANSCOMBE, Princeton University.
2. *Some Problems in the Foundations of Statistics*, ALLAN BIRNBAUM, New York University.
3. *A New Axiomatic Formalism in Probability*, V. S. VARADARAJAN, Courant Institute of Mathematical Sciences.

Saturday, April 14, 1962

8:30 a.m.—Contributed Papers IV

Chairman: GOTTFRIED E. NOETHER, Boston University

1. *A Generalization of Ballot Theorems*, T. V. NARAYANA, National Institute of Arthritis and Metabolic Diseases.

2. *Approximation to Hypergeometrics by the Binomial and to the Binomial by Poisson*, SHRINIWAS KESHAV KATTI, Florida State University.
3. *On the Characteristic Functions of Absolutely Continuous Distribution Functions*, H. ROBERT VAN DER VAART, Institute for Theoretical Biology, Leiden, and North Carolina State College.
4. *Experimental Study of the Power Associated with the Kolmogorov-Smirnov Test* (Preliminary Report), CLAIR J. BECKER, BEVERLY E. CODDING, and BENJAMIN F. CRON, U. S. Navy Underwater Sound Laboratory (Introduced by Richard C. Taeuber).
5. *Confidence Regions Bounded by Generalized Order Statistics*, PETER NEMENYI, State University of New York Downstate Medical Center.
6. *A Simple Procedure of Unequal Probability Sampling without Replacement*, J. N. K. RAO, H. O. HARTLEY, Iowa State University, and W. G. COCHRAN, Harvard University.
7. *On a Sequential Process Inspection Scheme with an Application to a Detection Problem* (Preliminary Report), NAOMI BOGRAD and JACK NADLER, Bell Telephone Laboratories.

10:30 a.m.—Statistical Theory II

Chairman: R. L. ANDERSON, North Carolina State College

1. *Chebyshev-Type Inequalities for Smooth Distributions*, COLIN L. MALLOWS, Columbia University.
2. *Two-Sample Sequential Rank Tests*, F. WILCOXON, L. J. RHODES and R. A. BRADLEY, Florida State University.
3. *Some New Kinds of Binomial Confidence Limits*, JOHN TUKEY, Princeton University and Bell Telephone Laboratories.

Contributed Papers Presented by Title

1. *Binomial Distribution: When Both Parameters Are Random Variables* (Preliminary Report), ROSHAN L. CHADDHA, Kansas State University.
2. *Post Cluster Sampling*, S. P. GHOSH, University of California, Berkeley.
3. *Smallest and Minimum Lifes in Fatigue*, E. J. GUMBEL, Columbia University, and L. H. HERBACH, New York University.
4. *Mutual Determination of Random Variables by Correlation*, H. O. LANCASTER, University of Sydney, New South Wales, Australia.
5. *Linear Estimation and the Analysis of Gamma Ray Spectra*, BERNARD S. PASTERNACK, New York University Medical Center.
6. *Randomization in Fractional Factorials*, B. V. SHAH and O. KEMPTHORNE, Iowa State University.
7. *The M/G/1 Queue with Poisson-Type Breakdowns of the Service Mechanism*, R. EMERSON THOMAS, University of North Carolina.

JOAN RAUP ROSENBLATT
Associate Secretary

REPORT ON THE ALBUQUERQUE, NEW MEXICO MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The ninety-first meeting of the Institute of Mathematical Statistics, Western Regional Meeting, was held at the University of New Mexico, Albuquerque, New Mexico, on April 19–20, 1962.

Sixty-five people registered for the meeting and the program was as follows:

Thursday, April 19, 1962

9:00 a.m.—Welcome—HAROLD L. ENARSON, Academic Vice President, University of New Mexico.

9:10–11:15 a.m.—Probability Theory

Chairman: JULIUS BLUM, University of New Mexico

Place: Student Union, Room 250C

1. *Semi-Gaussian Subspaces*, D. L. BURKHOLDER, University of California, Berkeley.
2. *Limit Theorems for Moving Averages*, LAWRENCE SHEPP, University of California, Berkeley.
3. *Invariants under Mixing which Generalize de Finetti's Theorem*, DAVID A. FREEDMAN, University of California, Berkeley.

1:00–3:00 p.m.—Estimation

Chairman: DONALD B. OWEN, Sandia Corporation

Place: Student Union, Room 250C

1. *Capriciously Consistent Estimates*, KENNETH A. BUSH, Washington State University.
2. *Estimation of Defect Frequency in Manufacturing Processes*, A. D. WIGGINS, General Electric Company.
3. *An Estimate of the Compounding Distribution for a Compound Poisson Distribution*, HOWARD G. TUCKER, University of California, Riverside.

3:15–5:15 p.m.—Non-Parametric Statistics

Chairman: G. P. STECK, Sandia Corporation

Place: UNM Union, Room 250C

1. *Some Simple Distribution-Free Statistics*, Z. W. BIRNBAUM, University of Washington.
2. *Some Basic Theorems of Distribution-Free Statistics*, CHARLES B. BELL, JR., San Diego State College.
3. *Remarks on a Rank Test of Lehmann*, LINCOLN E. MOSES, Stanford University.

Friday, April 20, 1962

8:30–10:30 a.m.—Statistical Theory

Chairman: D. A. S. FRASER, Stanford University

Place: UNM Union, Room 250C

1. *Selection and Ranking Procedures for Gamma Populations*, SHANTI S. GUPTA, Stanford University.
2. *Multi-Way Stratification*, EDWARD C. BRYANT, Westat Research Analysts and Arizona State University.
3. *An Application of Time Series Analysis to the Seismic Detection Problem*, L. H. KOOPMANS, Sandia Corporation.

9:00–11:00 a.m.—Contributed Papers

Chairman: D. R. TRUAX, University of Oregon

Place: UNM Union, Room 231D

1. *Pairwise Comparison and Ranking*, HANS BÜHLMANN and PETER HUBER, University of California, Berkeley.
2. *Estimating the Parameters in the Model $y_{ijk} = a_i - b_j + e_{ijk}$* , AARON S. GOLDMAN, Los Alamos Scientific Laboratory.

3. *On the Optimality of the Sequential Probability Ratio Test*, TED K. MATTHES, RAND Corporation.
4. *Determination of Estimates for a Time Series*, Preliminary Report, PAUL H. RANDOLPH, Purdue University.
5. *Games Associated with a Renewal Process*, M. M. SIDDIQUI, National Bureau of Standards, Boulder, Col.
6. *A Theorem on Sequences of Independent Time Variable Games*, JAMES B. MACQUEEN, University of California, Los Angeles, (introduced by Jacob Marchak).
7. *Optimum Stratification with Multiple Characters*, S. P. GHOSH, University of California, Berkeley.
8. *Multi-Sample Analogues of some One-Sample Tests*, M. L. PURI, University of California, Berkeley.

10:45–12:00 a.m.—Distribution Theory

Chairman: M. V. JOHNS, JR., Stanford University

Place: UNM Union, Room 250C

1. *A One-Parameter Generalization of the Normal Distributions*, THOMAS S. FERGUSON, University of California, Los Angeles.
2. *Properties of the Equicorrelated Multivariate Normal Distributions*, G. P. STECK, Sandia Corporation.

1:00–3:00 p.m.—Probability Theory and Applications

Chairman: Z. W. BIRNBAUM, University of Washington

Place: UNM Union, Room 250C

1. *Optimal Gambling Systems*, LESTER E. DUBINS and LEONARD J. SAVAGE, University of California, Berkeley, and University of Michigan.
2. *Solidarity of Recurrent Markov Chains*, RONALD PYKE, University of Washington.
3. *On a Distribution Arising in Two-Step Carcinogenesis*, W. KLONECKI, University of California, Berkeley.

Contributed Papers Presented by Title

1. *A Contribution to Counter Theory*, DONALD L. BENTLEY, Colorado State University.
2. *An Inequality on the Concentration of Sums of Random Variables*, LUCIEN LE CAM, University of California, Berkeley.
3. *A Note on the Central Limit Theorem*, LUCIEN LE CAM, University of California, Berkeley.
4. *The Cumulative Hazard Rate in Reliability Studies*, ROBERT B. RUTLEDGE, East St. Louis, Illinois, (introduced by Waldo A. Vezeau), and WALDO A. VEZEAU, Saint Louis University.
5. *Least Squares and Restraints*, MARVIN ZELEN, University of Wisconsin.
6. *On the Minimax Property of Hotelling's T^2-Test*, N. C. GIRI, University of Arizona.
7. *Rank Tests for Paired-Comparison Experiments Involving K Treatments*, K. L. MEHRA, University of California, Berkeley.

FRED C. ANDREWS
Associate Secretary

PUBLICATIONS RECEIVED

ARROW, KENNETH J., KARLIN, SAMUEL, and SCARF, HERBERT (1962). *Studies in Applied Probability and Management Science*. Stanford Univ. Press. 287 pp. $8.50.

DAVID, F. N. and BARTON, D. E. (1962). *Combinatorial Chance*. Hafner, New York. 356 pp. $10.25.

EASTERLIN, RICHARD A. (1962). *The American Baby Boom in Historical Perspective*. Occasional Paper No. 79 National Bureau of Economic Research, New York. 60 pp. $1.00.

GRIFFIN, JOHN I. (1962). *Statistics: Methods and Applications*. Holt, Rinehart and Winston, New York. 533 pp. $8.00.

KENDALL, M. G. (1961), *A Course in the Geometry of n Dimensions*. No. 8 of Griffin's Statistical Monographs and Courses, Hafner, New York. 63 pp. $3.00.

LLOYD, DAVID K. and LIPOW, MYRON (1962). *Reliability: Management, Methods and Mathematics*. Prentice-Hall, Englewood Cliffs, New Jersey. 528 pp. text, $11.25; trade, $15.

MARLISS, G. S. and ZAYACHKOWSKI, W. (1962). *The Smirnov Two-Sample Statistics D_{mn} ($n \leqq m \leqq 20$)*. Department of Mathematics, Essex College, Windsor, Ontario, 49 pp. $1.00.

SZYMCZYK, JAN (1961). *Arches. Tables for Statistical Analyses*. Pergamon Press, Oxford. 535 pp. $20.00.

ZACKRISSON, UNO (1962). *A Study of Truncation and Censoring with Economic Subsidiary Conditions*. No. 9, Statistiska Institutionen, Goteborgs, Sweden. 117 pp.

ZIPPIN, LEO (1962). *Uses of Infinity*. Random House, New York. 151 pp. $1.95.