

NEWS AND NOTICES

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

Personal Items

H. Breny, Dr. Sc., was promoted to "Ordinary Professor" at the University of Liege, as Head of the newly created chair of "Probability Theory and Mathematical Statistics."

Walter A. Shewhart, Fellow and former president of the Institute of Mathematical Statistics, died March 11, 1967.

New Members

- Almeida, Jose Dionísio**, Ph.D., (Faculty of Economics, Lisbon); Reader in Statistics and Economics, Faculty of Economics, Porto, Portugal.
- Belli, Pedro**, M.A., (University of California, Berkeley); Graduate Student, University of California, Berkeley.
- Blake, Ian F.**, M.A., (Princeton University); Research Assistant, Department of Electrical Engineering, Princeton University.
- Burdick, David Lloyd**, Ph.D., (University of New Mexico); NASA Fellow, University of New Mexico.
- Chung, Choon Young**, M.S., (Korea University); Instructor in Mathematics, Department of Mathematics, Korea University.
- Deshpandé, Jayant Vinayak**, Ph.D., (University of Poona); Research Associate, Department of Statistics, University of North Carolina, Chapel Hill.
- Fernandez, Pedro Jesus**, Licenciado en Ciencias Matematicas, (University of Buenos Aires); Graduate Student, Department of Statistics, University of California, Berkeley.
- Frankel, Martin Richard**, M.A., (University of Michigan); Graduate Student, Institute for Social Research, Survey Research Center, University of Michigan.
- Fu, Lo-chung**, M.S., (Cornell University); Graduate Student, Electrical Engineering Department, California Institute of Technology.
- Gulati, Leela**, M.S., (Lucknow University); Graduate Student, Department of Mathematics, Ohio State University.
- Huang, Wen-Tao**, M.S., (National Tsing-Hua University); Graduate Student, Department of Mathematical Statistics, Columbia University.
- Hunt, Gordon C.**, S.M., (Massachusetts Institute of Technology); Senior Group Engineer, Aerospace Group, Boeing Co., Seattle.
- Kondo, Akira**, B.E., (University of Tokyo); Graduate Student, Statistics Center, Rutgers—The State University.
- Kostetsky, Oleh**, M.A., (University of Michigan); Operations Research Analyst, United Fruit Co., Boston.
- Lindae, Detlev**, B.A., (University of California, Berkeley); Graduate Student, Department of Statistics, University of California, Berkeley.

- Lockett, Joseph L., Jr.**, B.A., (Rice University); Graduate Student, Naval Postgraduate School, Monterey.
- Mikkola, Erkki T.**, B.Sc., (University of Helsinki); Teaching Assistant, Department of Applied Mathematics, University of Helsinki.
- Patel, Jagdish K.**, M.S., (New York University); Graduate Assistant, Department of Statistics, University of Minnesota.
- Schotz, William E.**, M.A., (State University of New York at Buffalo); Graduate Student, Department of Statistics, State University of New York at Buffalo.
- Seward, Frank N.**, B.S., (University of Missouri); Graduate Student, Department of Statistics, University of Missouri.
- Shohoji, Takao**, M.S., (Hiroshima University); Analytic Statistician, Atomic Bomb Casualty Commission, Hiroshima.
- Tatikonda, Lakshmi Umavijava**, Ph.D., (University of Texas); Assistant Professor, Department of Mathematics, Louisiana State University.
- Tharakan, C. Thomas**, M.Sc., (University of Kerala); Graduate Student, Institute of Social Research, University of Michigan.
- Wampler, Roy H.**, M.A., (University of Maryland); Mathematician, National Bureau of Standards, Washington, D.C.
- Yao, Jing-Shing**, M.Sc., (Kyushu University); Head, Section of Mathematical Statistics, Tamkang College of Arts and Sciences, Tamsui, Taiwan.
- Zemaitis, Vincent R.**, B.S., (Brooklyn College); Graduate Student, Polytechnic Institute of Brooklyn.

REPORT OF THE COLUMBUS, OHIO MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The one-hundred-thirteenth meeting of the Institute of Mathematical Statistics, Central Regional Meeting, was held at Ohio State University, Columbus, Ohio, on March 23–25, 1967. A total of 127 persons registered for the meetings. Of this number, 77 were members.

Program

Thursday, March 23, 1967

10:00 AM–12:00 Noon—Invited Papers I

Chairman: R. BUEHLER, University of Minnesota

1. *Some Sequential Analogues of the Behrens-Fisher Problem*, NORMAN STARR, Carnegie Institute of Technology, and HERBERT ROBBINS, University of Michigan.
2. *Some New Results in Group Testing*, MILTON SOBEL, University of Minnesota.
3. *Tests for Discrimination Between Regression Models*, B. V. SHAH, Research Triangle Institute.

1:20–3:00 PM—Contributed Papers I

Chairman: MILTON SOBEL, University of Minnesota

1. *Selecting a Subset Containing a Best Hypergeometric Distribution*, N. S. BARTLETT, Standard Oil Company of Ohio, and ZAKKULA GOVINDARAJULU, Case Institute of Technology.
2. *Selecting a Subset Containing the Best One of Several IFRA Populations* (Preliminary

- Report), JAGDISH K. PATEL, University of Minnesota (Introduced by Milton Sobel, University of Minnesota).
3. *On Partitioning a Set of Normal Populations into those Worse and those Better than a Standard by a Single Stage, Two Stage and Sequential Procedure*, YUNG LIANG TONG, University of Minnesota.
 4. *On Selecting the Largest Category*, KHURSHEED ALAM, Indiana University.
 5. *A Selection Problem* (Preliminary Report), DESU M. MAHAMUNULU, State University of New York at Buffalo.

1:20-3:00 PM—Contributed Papers II

Chairman: TIM ROBERTSON, University of Iowa

1. *Maximizing the Expectation of a Step Function of a Sum of Independent Random Variables*, S. M. SAMUELS, University of California, Berkeley.
2. *Degenerate Convergence and von Mises-Bernstein Theorem for Posterior Distributions*, JAY D. BORWANKER, University of Minnesota.
3. *Transient Behavior of the Queue GI/M/S*, U. NARAYAN BHAT, Case Institute of Technology.
4. *Nonparametric Estimation in Markov Processes*, GEORGE G. ROUSSAS, University of Wisconsin.
5. *Exponential Ergodicity in Markov Renewal Processes*, J. L. TEUGELS, Purdue University.

3:15-5:15 PM—Invited Papers II

Chairman: W. ERICSON, University of Michigan

1. *On a Generalization of the Hodges-Lehmann M*, R. V. HOGG, University of Iowa.
2. *Some Remarks on Exact Testing*, R. R. BAHADUR, University of Chicago.
3. *Some Unified Non-Parametric Testing Theory*, C. B. BELL, Case Institute of Technology.

Discussant: H. RUBIN

Friday, March 24, 1967

8:30-9:50 AM—Contributed Papers III

Chairman: JON CRYER, University of Iowa

1. *The Inadmissibility of Confidence Interval of Location Parameter*, S. K. PERNG, Michigan State University.
2. *Approximations to the Generalized Negative Binomial Distribution*, HAJIME MAKABE, Tokyo Institute of Technology and ZAKKULA GOVINDARAJULA, Case Institute of Technology.
3. *Percentage Points of Weibull Test Statistics*, H. LEON HARTER, Wright-Patterson Air Force Base, Ohio.
4. *Some Sequential Tests for Student's Hypothesis* (Preliminary Report), M. S. SRIVASTAVA, University of Toronto.

8:30-9:50 AM—Contributed Papers IV

Chairman: NORMAN STARR, Carnegie Institute of Technology

1. *Nonparametric Independence Tests: Optimal Alternatives* (Preliminary Report), C. B. BELL and P. SMITH, Case Institute of Technology.
2. *Bivariate Symmetry Tests: Parametric and NP*, C. B. BELL and H. SMITH HALLER, Case Institute of Technology.
3. *On a Generalized Savage Statistic with Applications to Life Testing* (Preliminary Report), A. P. BASU, University of Wisconsin.

4. *Distribution Free Confidence Bounds for $P(X < Y)$* , ZAKKULA GOVINDARAJULU, Case Institute of Technology.

10:00 AM-12:00 Noon—Invited Papers III

Chairman: B. HILL, University of Michigan

1. *Bayesian Non-Parametric Classification*, JAMES DICKEY, Yale University.
2. *Non-linear Two-sample Rank Order Statistics in the Null-Case*, S. SCHACH, University of Minnesota.
3. *On Error in the Variables*, A. ZELLNER and U. SANKAR, University of Chicago.

1:20-2:20 PM—Contributed Papers V

Chairman: J. J. BIRCH, University of Iowa

1. *Nonparametric Ranking Procedures for Comparison with a Control* (Preliminary Report), M. HASEEB RIZVI, Ohio State University, MILTON SOBEL and GEORGE WOODWORTH, University of Minnesota.
2. G_{λ} *Minimax Estimators*, JOHN J. DEELY, MARTIN S. TIERNEY and WILLIAM J. ZIMMER, Sandia Corporation.
3. *Nonparametric Randomness Tests*, C. B. BELL, JOHN DONOGHUE, and E. F. MEDNIK, Case Institute of Technology.

2:30-5:10 PM—Invited Papers IV

Chairman: J. SEDRANSK, Iowa State University

1. *Some Results on Ratio Estimators*, J. N. K. RAO, Texas A and M University.
2. *Integration of Surveys*, P. K. PATHAK, University of Illinois.
3. *On the General Multivariate Ratio Estimator*, PODURI S.R.S. RAO, Information Research Associates.
4. *Combining Information from Two or More Sample Surveys*, DONNA RUHL and J. SEDRANSK, Iowa State University.

Saturday, March 25, 1967

8:30-9:50 AM—Contributed Papers VI

Chairman: C. B. BELL, Case Institute of Technology

1. *Nonparametric Tests for 2-Factor Experiments* (Preliminary Report), C. B. BELL and H. GELLER, Case Institute of Technology.
2. *Testing Hypotheses in Randomized Factorial Experiments*, S. EHRENFELD, New York University and S. ZACKS, Kansas State University.

8:30-9:50 AM—Contributed Papers VII

Chairman: J. N. K. RAO, Texas A and M University

1. *Relations and Bigraphs* (Preliminary Report), JAGBIR SINGH and W. A. THOMPSON, JR., The Florida State University, Tallahassee.
2. *Asymptotic Distribution of the Largest Components in a Sum of Independent Random Variables*, ALLAN H. MARCUS, Case Institute of Technology.
3. *On the Glivenko-Cantelli Theorem for Infinite Invariant Measures*, EUGENE M. KLIMKO, Ohio State University (Introduced by Louis Sucheston, Ohio State University).
4. *On an Inverse Gaussian Process*, M. T. WASAN, Queen's University.

10:00 AM-12:00 Noon—Invited Papers V

Chairman: L. SUCHESTON, Ohio State University

1. *Some Results on Almost Sure Convergence in the Independent and Martingale Cases*, WILLIAM STOUT, Purdue University.

2. *Composition Limit Theorems for Probability Generating Functions*, J. D. CHURCH, Mathematics Army Research Center.
3. *On Probabilistic Limit Theorems for a Class of Positive Matrices*, L. A. KLIMKO and L. SUCHESTON, Ohio State University.

Contributed Papers By Title

1. *Interaction in Multi-Dimensional Contingency Tables* (Preliminary Report), S. KULLBACK, The George Washington University and H. H. KU, National Bureau of Standards.
2. *Test for Possible Changes in the Parameter at Unknown Time Points*, CHANDAN K. MUSTAFI, Columbia University.
3. *Some Theorems on Stochastically Larger Random Vectors*, YUNG LIANG TONG, University of Minnesota.
4. *Investigations on the Basic Theory of 2^{m-3r} Fractional Factorial Designs of Resolution V and Related Orthogonal Arrays*, J. N. STRIVASTAVA, Colorado State University.
5. *On the Construction of BIB Designs using Non-Degenerated Quadrics in Finite Euclidean Space*, SAKTI P. GHOSH, IBM Research Center.

PUBLICATIONS RECEIVED

- ADAMS, R. N. and DENMAN, E. D. (1966). *Wave Propagation and Turbulent Media*. American Elsevier Publishing Co., New York. vii + 126 pp. \$7.50.
- CRUON, R. (Editor) (1967). *Queuing Theory: Recent Developments and Applications*. American Elsevier Publishing Co., New York. xv + 224 pp. \$13.50.
- DOORNBOS, R. (1967). *Slippage Tests*. Mathematisch Centrum, Amsterdam. 1-97 pp. \$3.00.
- EDIE, LESLIE C. (Editor) (1967). *Vehicular Traffic Science*. American Elsevier Publishing Co., New York. x + 373 pp. \$16.00.
- FREUND, JOHN E. (1967). *Modern Elementary Statistics* (3rd Edition). Prentice-Hall, Inc., Englewood Cliffs. x + 432 pp. \$9.25.
- HOLLINGDALE, S. H. (Editor) (1967). *Digital Simulation in Operational Research*. American Elsevier Publishing Co., New York. xv + 392 pp. \$14.50.
- MENSCH, ANDRE (Editor) (1967). *Theory of Games: Techniques and Applications*. American Elsevier Publishing Co., New York. vii + 490 pp. \$15.00.
- NOBLE, BEN (1967). *Applications of Undergraduate Mathematics in Engineering*. The Mathematical Association of America and Macmillan Co., New York. xvii + 364 pp. \$9.00.
- PEARSON, E. S. (1967). *The Selected Papers of E. S. Pearson*. University of California Press. viii + 327 pp. \$6.75.
- SCHAAFSMA, WILLIAM (1966). *Hypothesis Testing Problems with the Alternative Restricted by a Number of Inequalities*. P. Noordhoff, Ltd., Groningen. x + 135 pp. \$4.15.