

## NEWS AND NOTICES

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

### Personal Items

Dr. N. M. Bhatt presided at the Statistics Section of 53rd Session of Indian Science Congress Association held at Chandigarh (India) in January 1966.

Dr. Margaret Gurney has been honored by the United States Government for "meritorious Federal service." She was presented a U.S. Department of Commerce Silver Medal Award by Commerce Secretary, John T. Connor, at ceremonies held February 15 in Washington.

Dr. Allyn W. Kimball, a 44-year old Johns Hopkins University professor of statistics, biostatistics and biomathematics, today was named Dean of the Faculty of Arts and Sciences at the University's Homewood campus.

Professor J. Legoupil of the Université de Rennes will be a Visiting Professor at Laval University, Québec, from September 10 to December 24, 1966.

Dr. Roger S. McCullough has resigned as Operational Research Analyst with the Canadian National Railways, Montreal, Canada, to accept a position as Research Scientist with the Division of Mathematical Statistics, Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.) at the National Standards Laboratory, Sydney, Australia.

Frank B. Martin has been awarded the George W. Snedecor Award for 1966 at Iowa State University. Martin has been employed as a graduate research assistant with the Statistical Laboratory since 1963. He received an M.S. from Iowa State in 1965.

J. E. Morton has returned from an assignment in Manila as Visiting Professor in charge of training in quantitative methods under the Wisconsin—University of the Philippines Program in Development Economics.

Suresh C. Rastogi has joined the Division of Biostatistics, University of Maryland, Baltimore, after getting his Ph.D. in statistics from the University of Iowa in February, 1966.

J. Russell Vatnsdal, Professor of Mathematics at Washington State University and a member of the Institute since 1933, passed away on April 14, 1966.

---

### New Members

**Baños, Alfredo, B.A.**, (University of California, Los Angeles); Graduate Student, University of California, Los Angeles; *968 Gretna Green, Los Angeles, California 90049*.

**Bansal, Ashok Kumar, M.Sc.**, (Lucknow University); Graduate Student/Assistant, Department of Statistics, Purdue University.

**Bee, David E., Ph.D.**, (Oklahoma State University); Assistant Professor, Department of Mathematics and Statistics, Oklahoma State University.

- Beutler, Frederick J.**, Ph.D., (California Institute of Technology); Professor of Instrumentation, Department of Aerospace Engineering, University of Michigan.
- Boardman, Thomas J.**, M.S., (Rutgers-The State University); Graduate Student/Assistant, Statistics Center, Rutgers-The State University.
- Boullion, Thomas L.**, Ph.D., (University of Texas); Assistant Professor, University of Southwestern Louisiana.
- Bram, Joseph**, Ph.D., (University of Chicago); Mathematician, Center for Naval Analysis, Arlington, Virginia.
- Celebiler, Mehmet I.**, M.S., (Technical University of Istanbul); Graduate Student, Moore School of Electrical Engineering, University of Pennsylvania.
- Christiansen, Allan**, Cand. Mag., (University of Copenhagen); Associate Professor, The Royal Danish College of Education, Copenhagen; *397A Lynbyvej, Gentofte, Denmark.*
- Chung, Wing Fai**, B.S., (University of Oregon); Graduate Student, Columbia University.
- Faust, Robert Byrd**, B.S., (University of South Carolina); Mathematician, Analytical Branch, Development and Proof Services, Engineering Measurement and Analysis Division, Aberdeen Proving Ground; *116 Osborn Road, Aberdeen, Maryland.*
- Freeman, Peter Ronald**, M.A., (Cambridge University); Lecturer in Statistics, Department of Applied Statistics, University of Reading, Berkshire.
- Hilliard, Jimmy E.**, M.S., (University of Tennessee); Graduate Student/Engineer, University of Alabama/Northrop Space Laboratories; *203 Ridgely Place, Apt. B1, Huntsville, Alabama.*
- Hoem, Jan M.**, Cand. Act., (University of Oslo); Universitetslektor, Institutt for Statistikk, Universitetet i Oslo.
- de Hoyos, Arnold J.**, M.S., (University of Puerto Rico); Graduate Student, Department of Statistics, University of California, Berkeley.
- Lavelle, John F.**, M.S., (Michigan State University); Senior Analyst, Information Research Associates, 3065 Rosecrans Place, San Diego, California 92110.
- Lew, Robert A.**, M.S., (University of Michigan); Graduate Student, Department of Mathematical Statistics, University of Michigan; *801 Miller, Apt. 7, Ann Arbor, Michigan.*
- Martin, James J.**, Ph.D., (Massachusetts Institute of Technology); System Analyst/Operations Researcher, Staff, Commander Antisubmarine Warfare Force, Pacific, U.S.N.; *1216 Keola Drive, Kailua, Hawaii 96734.*
- Meilijson, Isaac**, B.Sc., (Hebrew University of Jerusalem); Graduate Student, Hebrew University of Jerusalem; *51 David Hamelech Blvd., Tel Aviv, Israel.*
- Oaten, Allan**, B.A., (University of Melbourne); Graduate Student/Assistant, Department of Statistics, Michigan State University.
- Ochi, Kazuo M.**, Ph.D., (Osaka University); Research Naval Architect, David Taylor Model Basin, U.S.N.; *8910 Victory Lane, Rockville, Maryland 20850.*
- Quisel, Kent**, Ph.D., (Stanford University); Venture Appraisal Group, Development Department, DuPont Company; *313 Grandview Avenue, Wilmington, Delaware 19809.*
- Prentice, Charles Alfred**, B.Comm., (University of British Columbia); Graduate Student/Teaching Assistant, University of California, Berkeley.
- Rutledge, David J. S.**, B.A., (University of Sydney); Graduate Student, Department of Statistics, Stanford University.
- Schulman, Martin L.**, B.S., (Fairleigh Dickinson University); Engineer, Western Electric Company; *100 Oakwood Avenue, West Hartford, Connecticut.*
- Scott, Meckinley**, Ph.D., (University of North Carolina); Assistant Professor, Department of Mathematics, University of Alabama.
- Shiah, Paul Ming**, M.A., (Indiana University); Statistician, Merck Sharp and Dohme Research Laboratory, West Point; *B-2 Presidential Arms, Apts., White Road, Lansdale, Pennsylvania 18446.*
- Siegmund, David O.**, B.A., (Southern Methodist University); Graduate Student, Department of Mathematical Statistics, Columbia University.

- Singhal, Jai P.**, M.S., (Kansas State University); Reliability Engineer, The National Cash Register Co., Electronics Division, Hawthorne, California.
- Solomon, Vasantha B.**, M.Sc., (Madras University); Graduate Student, Department of Statistics, Iowa State University.
- Strauss, Stephen J.**, M.S., (University of Wisconsin); Graduate Student, Department of Mathematical Statistics, Columbia University.
- Sugiyama, Takakazu**, M.A., (The College of Tokyo Science); Instructor, College of Science and Engineering, Aoyama Gakuin University; 3-19 Kita 3 Chome, Asagaya, Suginami-Ku, Tokyo.
- Tracy, Derrick Shannon**, Sc.D., (University of Michigan); Associate Professor, Department of Mathematics, University of Windsor, Canada.
- Wagner, Stanley J.**, M.A., (University of California, Davis); Graduate Student, University of California, Davis.
- Yanagawa, Takashi**, B.S.; Graduate Student, Kyushu University.

---

### ABSTRACT DEADLINES

All abstracts must be submitted in duplicate on abstract blanks to the Managing Editor, Paul L. Meyer, Department of Mathematics, Washington State University, Pullman, Washington 99163, at least 50 days before the first day of the meeting at which the paper is to be presented.

Specifically, the following deadline dates must be observed for the indicated meetings:

June 26, 1966 for the Western Regional meeting at Los Angeles, California.

July 11, 1966 for the Annual meeting at New Brunswick.

July 16, 1966 for the European Regional meeting at London.

---

### REPORT OF THE LAFAYETTE, INDIANA MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The one-hundred-eighth meeting of the Institute of Mathematical Statistics, Central Regional Meeting, was held at Purdue University, Lafayette, Indiana, on March 23-25, 1966.

A total of 129 persons registered for the meetings. Of this number, 104 were members.

---

### Program

Wednesday, March 23

10:00 a.m.-12:00 a.m.—Invited Papers I

Chairman: G. BAXTER, Purdue University

1. *A General Cyclic Ballot Theorem*, A. DVORETZKY, Purdue University.
2. *Convolutions of Random Functions*, H. BERGSTROM, Florida State University.
3. *A Conveyance Rate Theorem for the Amplitude Spectra of Quasi-linear Processes*, L. H. KOOPMANS, University of New Mexico.

**1:30 p.m.—3:30 p.m.—Invited Papers II**

Chairman: R. BERK, University of Michigan

1. *On the Asymptotic Theory of Permutation Tests*, P. K. SEN, University of North Carolina.
2. *On the Asymptotic Efficiency of a Sequential Procedure for Estimating the Mean*, N. STARR, University of Minnesota.
3. *Asymptotic Results for the Finite Predictor*, G. BAXTER, Purdue University.

**3:45 p.m.—5:00 p.m.—Contributed Papers I (Simultaneous with Contributed Papers II)**

Chairman: H. T. DAVID, Iowa State University

1. *Some Convergence Theorems for Linear Combinations of Independent Random Variables*, Y. S. CHOW, Purdue University.
2. *Estimation of the Number of Trials in the Binomial Case when Several Observations are Available* (Preliminary Report), D. FELDMAN and M. FOX, Michigan State University.
3. *A Sequential Estimation of the Mean of a Log-normal Distribution, which Guarantees a Prescribed Closeness*, S. ZACKS, Kansas State University.
4. *One-Sample Normal Scores Test, Distribution and Power*, R. THOMPSON, MIT, Z. GOVINDARAJULU, Case Tech., and K. A. DOKSUM, University of California, Berkeley.

**3:45 p.m.—5:00 p.m.—Contributed Papers II—(Simultaneous with Contributed Papers I)**

Chairman: M. SOBEL, University of Minnesota

1. *Bayes Risk Consistency of Classification Procedures Using Density Estimation*, J. VAN RYZIN, Argonne National Laboratory.
2. *Non-parametric Empirical Bayes Procedures for Selecting the Best of  $k$  Populations*, J. DEELY, Sandia Corporation.
3. *On Selecting a Subset Containing the Best of Several Discrete Populations*, K. NAGEL, Purdue University.
4. *Estimation of the Location of the Cusp of a Continuous Density* (Preliminary Report), B. L. S. PRAKASA RAO, Michigan State University.
5. *A Two-Sample Estimation of the Largest Mean*, K. ALAM, Indiana University.

**Thursday, March 24****8:30 a.m.—9:15 a.m.—Contributed Papers III—(Simultaneous with Contributed Papers IV)**

Chairman: J. DARROCH, University of Michigan

1. *Efficiency Curves for a Class of Layer Tests of Bivariate Independence* (Preliminary Report), G. WOODWORTH, University of Minnesota.
2. *On the Theory of Rank-order Tests and Estimates for Location in the Multivariate One Sample Problem*, P. K. SEN, University of North Carolina and M. L. PURI, New York University.
3. *Monotonicity of Rank Order Likelihood Ratios*, K. M. LAL SAXENA, University of Nebraska.

**8:30 a.m.—9:30 a.m.—Contributed Papers IV—(Simultaneous with Contributed Papers III)**

Chairman: W. STUDDEN, Purdue University

1. *Maximum-likelihood Estimation, from Singly Censored Samples, of the Location Parameter of an Extreme-value Distribution with known Scale Parameter*, H. L. HARTER, Aerospace Research Laboratories and A. H. MOORE, Air Force Institute of Technology.

2. *Point and Interval Estimation, from One Order Statistics, of the Location Parameter of an Extreme-value Distribution with known Scale Parameter*, A. H. MOORE, Air Force Institute of Technology and H. L. HARTER, Aerospace Research Laboratories.
3. *Estimation of the Population Median*, D. M. MAHAMUNULU and R. H. RODINE, State University of New York at Buffalo.
4. *Use of Truncated Estimator of Variance Ratio in Recovery of Inter-block Information*, K. R. SHAH, Michigan State University.

**9:30 a.m.—12:00 p.m.—Invited Papers III**

Chairman: N. STARR, University of Minnesota

1. *Fiducial Theory and Invariant Prediction*, R. J. BUEHLER, University of Minnesota, and R. B. HORA, Purdue University (Indianapolis Extension).
2. *Quantification of Occam's Razor by Violation of the Likelihood Principle*, M. STONE, University of Wisconsin.
3. *Random Genetic Drift in a Sub-divided Population*, E. POLLAK, Iowa State University.
4. *Implications of Bayes Risk Efficiency for Statistical Practice*, H. RUBIN, Michigan State University.

**1:30 p.m.—4:15 p.m.—Invited Papers IV**

Chairman: R. HOGG, University of Iowa

1. *Estimation of Entropy in Arbitrary Discrete Populations*, B. HARRIS, University of Wisconsin.
2. *On Slippage Problems*, A. KUDŌ and I. HALL, Iowa State University.
3. *On Invariant Sets for Location Parameter Families of Probability Measures*, D. BASU, University of Chicago.
4. *Identities for Passage Times with Applications to Recurrent Events and Homogeneous Differential Equations*, J. N. DARROCH, University of Michigan.

**4:15 p.m.—5:30 p.m.—Problem Session**

Panelists: A. DVORETSKY, Purdue University; H. ROBBINS, Purdue University; H. RUBIN, Michigan State University

**Friday, March 25**

**8:30 a.m.—9:30 a.m.—Contributed Papers V—(Simultaneous with Contributed Papers VI)**

Chairman: H. ROBBINS, Purdue University

1. *The "Secretary" Problem*, H. RUBIN, Michigan State University.
2. *Some Inequalities among Binomial and Poisson Probabilities*, S. M. SAMUELS, Purdue University, and T. W. ANDERSON, Columbia University.
3. *Computing the Value of a Stochastic Sequence*, D. SIEGMUND, Purdue University.
4. *Sequential Sampling for Confidence*, K. T. WALLENIUS, Yale University.

**8:30 a.m.—9:30 a.m.—Contributed Papers VI—(Simultaneous with Contributed Papers V)**

Chairman: M. F. NEUTS, Purdue University

1. *The Cumulants of  $s$ ,  $1/s$ , and  $t$* ; J. S. WHITE, General Motors Research Laboratories.
2. *Imbedded Markov Chains in Queueing Systems M/G/1 and GI/M/1 with Limited Waiting Room* (Preliminary Report), U. N. BHAT, Michigan State University.
3. *Compound Distributions of Infinitely Divisible Distributions with Exponential Family and with Exponential Type Family*, S. A. PATIL, Colorado State University.

4. *On a New Property of PBIB Designs Useful in an Application of MANOVA in Psychometrics*, J. N. SRIVASTAVA and R. L. MAIK, University of Nebraska.

#### 9:30 a.m.—12:00 a.m.—Invited Papers V

Chairman: G. HAGGSTROM, University of Chicago

1. *On a Canonical Model for Multivariate Regression*, L. J. GLESER, Johns Hopkins University and I. OLKIN, Stanford University.
2. *Estimation Employing Post Strata*, W. A. FULLER, Iowa State University.
3. *Further Consideration of Correlation*, J. GURLAND, University of Wisconsin.
4. *On Simple Combination of Information from Uncorrelated Linear Sources*, G. ZYSKIND and F. MARTIN, Iowa State University.

#### 1:30 p.m.—3:30 p.m.—Invited Papers VI

Chairman: J. KLOTZ, University of Wisconsin

1. *Some Remarks on the Completeness of a Family of Probability Measures with a Translation Parameter*, J. K. GHOSH, University of Illinois.
2. *Selecting the  $t$  Populations with the Largest  $\alpha$ -percentiles*, M. SOBEL, University of Minnesota.
3. *On Some Selection and Ranking Procedures with Applications to Multivariate Populations*, S. S. GUPTA and W. J. STUDDEN, Purdue University.

#### Contributed Papers by Title

1. *Distribution-free Independence Tests*, C. B. BELL and K. A. DOKSUM, Institut de Statistique de l'Universite de Paris.
2. *Some Nonparametric Bayesian Decision Problems*, K. M. LAL SAXENA, University of Nebraska.
3. *On the Asymptotic Theory of Sequential Confidence Intervals*, M. S. SRIVASTAVA, Princeton University.

---

#### PUBLICATIONS RECEIVED

- GAUSS, CARL F. (1965). *Disquisitiones Arithmeticae*. Yale University Press, New Haven. xx + 472 pp. \$12.50.
- GREENBERGER, MARTIN; JONES, MALCOLM M.; MORRIS, JAMES H.; NESS, DAVID N. (1965). *On-Line Computation and Simulation; The OPS-3 System*, M.I.T. Press, Cambridge. 128 pp. \$4.50.
- KUZNETSOV, P. J.; STRATONOVICH, R. L., and TIKHONOV, V. I., editors (1965). (Translation edited by J. WISE and D. C. COOPER.) *Non-linear Transformations of Stochastic Processes*. Pergamon Press, Inc., Long Island City. xvi + 500 pp. \$20.00.
- RAO, C. R. (1965). *Contributions to Statistics*. Pergamon Press, Inc., Long Island City. 528 pp. \$18.00.
- SALKIND, CHARLES G. (1966). *The MAA Problem Book II* (New Mathematical Library No. 17). Random House, New York. vi + 112 pp. \$1.95.
- SEARLE, S. R. (1966). *Matrix Algebra for the Biological Sciences*. John Wiley and Sons, Inc., New York. xii + 296 pp. \$9.95.
- SLATER, LUCY JOAN (1966). *Generalized Hypergeometric Functions*. Cambridge University Press, New York. xiv + 274 pp. \$13.50.
- WALSH, JOHN E. (1965). *Handbook of Nonparametric Statistics, Vol. II*. D. Van Nostrand Company, Inc., Princeton. xxvi + 686 pp. \$17.50.
- WOLD, HERMAN, editor (1966). *Bibliography on Time Series and Stochastic Processes*. M.I.T. Press, Cambridge. xv + 516 pp. \$18.00.