

REPORT OF THE HANOVER MEETING OF THE INSTITUTE

The sixth meeting of the Institute of Mathematical Statistics was held at Dartmouth College, Hanover, New Hampshire, Tuesday to Thursday, September 10 to 12, 1940, in conjunction with meetings of the American Mathematical Society and of the Mathematical Association of America. The following forty-two members of the Institute attended the meeting:

H. E. Arnold, Felix Bernstein, G. W. Brown, J. H. Bushey, B. H. Camp, A. T. Craig, A. R. Crathorne, J. H. Curtiss, J. F. Daly, W. E. Deming, J. L. Doob, Churchill Eisenhart, M. L. Elveback, C. H. Fischer, M. M. Flood, R. M. Foster, T. C. Fry, H. P. Geiringer, Robert Henderson, E. H. C. Hildebrandt, G. M. Hopper, Harold Hotelling, E. V. Huntington, M. H. Ingraham, Dunham Jackson, W. L. Kichline, L. F. Knudsen, B. A. Lengyel, W. G. Madow, J. W. Mauchly, Richard von Mises, E. B. Mode, Jerzy Neyman, P. S. Olmstead, Oystein Ore, M. M. Sandomire, L. W. Shaw, F. F. Stephan, A. G. Swanson, Abraham Wald, S. S. Wilks, Jacob Wolfowitz.

The meeting of the Institute consisted of four sessions. At the first session, which was held on Tuesday morning, Professor Harold Hotelling of Columbia University delivered an address on *The Teaching of Statistics*. This address was followed by considerable discussion on the various aspects of the teaching of statistics.¹ Preceding Professor Hotelling's address a short paper on an *Empirical Comparison of the "Smooth" test for goodness of fit with Pearson's Chi-Square test* was presented by Professor J. Neyman of the University of California.

Following Professor Hotelling's address a business meeting of the Institute was held. At this time resolutions on the teaching of statistics were approved (see p. 472). The President reported that a War Preparedness Committee had been appointed in the summer to study the matter of the Institute's participation in the national defense program.² The Chairman of this Committee submitted a preliminary report which met the approval of the Institute. A plan was approved for completing the report and circularizing it with a minimum of delay.

The matter of the organization of local sections or chapters of the Institute was discussed but no action was taken.

¹ Professor Hotelling's address and three resolutions regarding the teaching of Statistics which were adopted by the Institute at a business meeting following the address are published in the present issue of the *Annals of Mathematical Statistics*, pp. 457-472.

² The membership of the Committee is as follows:

Professor Churchill Eisenhart (Chairman), University of Wisconsin.

Professor A. T. Craig, University of Iowa.

Professor E. G. Olds, Carnegie Institute of Technology.

Captain Leslie E. Simon, Aberdeen Proving Ground.

Mr. Ralph E. Wareham, General Electric Company.

On Tuesday afternoon a session on contributed papers in Mathematical Statistics was held jointly with the American Mathematical Society. Professor B. H. Camp of Wesleyan University presided and the following papers were presented:

1. *Contributions to the theory of the representative method of sampling.*
Dr. W. G. Madow, Department of Agriculture, Washington.
2. *A generalization of the law of large numbers.*
Dr. Hilda P. Geiringer, Bryn Mawr College.
3. *On the problem of two samples from normal populations with unequal variances.*
Professor S. S. Wilks, Princeton University.
4. *Experimental determination of the maximum of an empirical function.*
Professor Harold Hotelling, Columbia University.
5. *Asymptotically shortest confidence intervals.*
Dr. Abraham Wald, Columbia University.
6. *Reduction of certain composite statistical hypotheses.*
Dr. G. W. Brown, R. H. Macy and Company, Inc., New York.
7. *Conception of equivalence in the limit of tests and its application to certain λ and χ^2 tests.*
Professor J. Neyman, University of California.

Abstracts of these papers follow this report.

On Wednesday morning a session was held on *The Theory of Probability* with Dr. T. C. Fry of the Bell Telephone Laboratories, in the chair. The following addresses were given:

1. *On the foundations of probability theory.*
Professor R. von Mises, Harvard University.
2. *Probability as measure.*
Professor J. L. Doob, University of Illinois.

This session was followed by an energetic discussion which was continued in an informal afternoon session.

The Thursday morning session was devoted to the *Theory of Statistical Estimation* with Professor Harold Hotelling as Chairman. The following addresses were given:

1. *Estimation by intervals as a classical problem in probability.*
Professor J. Neyman, The University of California.
2. *Statistical estimation in large samples.* Dr. Joseph F. Daly, The Catholic University of America.

On Monday at 4:15 p.m. a tea was held at the Graduate Club for members of the mathematical organizations and their guests, and on Monday at 8:00 a musical performance was presented. On Tuesday at 7:00 p.m. a joint dinner was held for the mathematical organizations in Thayer Hall. Wednesday afternoon was devoted to an excursion to Franconia Notch.

During the meeting a collection of string models of ruled surfaces was exhibited by Professor Robin Robinson of Dartmouth College and electrical calculation apparatus made from telephone equipment was exhibited by members of the staff of the Bell Telephone Laboratories.