

THE APRIL MEETING IN NEW YORK

The five hundred forty-sixth meeting of the American Mathematical Society was held on Thursday, Friday, and Saturday, April 24–26, 1958, at Columbia University. A Symposium on Combinatorial Designs and Analysis (sponsored by the Society with the aid of the Office of Ordnance Research) was held in conjunction with the regular meeting. About 450 persons attended, including 390 members of the Society.

By invitation of the Committee to Select Hour Speakers for Eastern Sectional Meetings, Professor I. M. Singer of the Massachusetts Institute of Technology addressed the Society on *Connections and holonomy groups* at 2:00 P.M. on Friday, and Professor J. C. Moore of Princeton University delivered an hour address entitled *A survey of some modern developments in homotopy theory* at 2:00 P.M. on Saturday. Professors W. S. Massey and N. E. Steenrod presided at these sessions respectively.

The Symposium was divided into four sessions which met at 10:00 A.M. and 2:00 P.M. on Thursday, 10:00 A.M. on Friday, and 10:00 A.M. on Saturday. At the first session, devoted to Existence and Construction of Combinatorial Designs, participants in the Symposium were welcomed by Lt. Colonel J. B. Sestito of the Office of Ordnance Research, U. S. Army. The following papers were presented: *Current studies on combinatorial designs* by Professor Marshall Hall, Jr. of Ohio State University; *Quadratic extensions of cyclic planes* by Professor R. H. Bruck of the University of Wisconsin; *Homomorphisms of projective planes* by Professor D. R. Hughes of Ohio State University; *The cyclotomic number of order 10* by Professor A. L. Whiteman of the University of Southern California; *Finite division algebras and finite planes* by Professor A. A. Albert of the University of Chicago.

At the second session, devoted to Combinatorial Analysis of Discrete Extremal Problems, the following papers were presented: *Some recent applications of the theory of linear inequalities to extremal combinatorial analysis* by Dr. A. J. Hoffman of the General Electric Company; *Compound and induced matrices in combinatorial analysis* by Professor H. J. Ryser of Ohio State University; *Duality structure* by Professor A. W. Tucker of Princeton University; *Linear inequalities and the Pauli principle* by Professor H. W. Kuhn of Bryn Mawr College; *On some communication network problems* by Dr. R. E. Kalaba of the RAND Corporation; *Permanents of doubly stochastic matrices* by Dr. Morris Newman of the National Bureau of Standards.

The third session of the Symposium was concerned with Problems of Communications, Transportation and Logistics. The following papers were given: *Dynamic programming and combinatorial processes* by Dr. R. E. Bellman of the RAND Corporation; *A problem in binary encoding* by Dr. E. N. Gilbert of the Bell Telephone Laboratories; *Directed graphs and assembly schedules* by Dr. J. Foulkes of the Bell Telephone Laboratories (in Dr. Foulkes' absence, the paper was read by Dr. V. A. Vyssotsky); *Solutions of large scale transportation problems* by Professor Murray Gerstenhaber of the University of Pennsylvania and the Institute for Advanced Study; *An algorithm for integral solutions of linear programs* by Dr. R. E. Gomory of Princeton University. Discussion at this session was led by Dr. M. M. Flood.

At the final session of the Symposium, devoted to Numerical Analysis of Discrete Problems, the following papers were presented: *Teaching combinatorial tricks to a computer* by Professor D. H. Lehmer of the University of California at Berkeley; *The computational size of the ten by ten orthogonal Latin square problem* by Professors C. B. Tompkins and L. J. Paige of the University of California at Los Angeles; *Some discrete variable computations* by Professor John Todd and Dr. Olga Taussky of the California Institute of Technology; *An enumeration technique for a class of combinatorial problems* by Professor R. J. Walker of Cornell University; *Some combinatorial problems associated with finite partially ordered sets* by Professor R. P. Dilworth of the California Institute of Technology; *Two methods of search in an n -cube* by Professor A. M. Gleason of Harvard University; *Isomorph rejection in exhaustive search techniques* by Professor J. D. Swift of the University of California at Los Angeles. Chairmen at the four sessions of the Symposium were Professors Ryser, Hall, Gleason, and Dr. Hoffman respectively.

Sessions for contributed papers were held at 3:15 P.M. on Friday, and at 10:00 A.M. and 3:15 P.M. on Saturday. Chairmen at these sessions were Dr. V. E. Beneš, Professors Chester Feldman, R. P. Gosselin, E. J. Pellicciaro, Drs. G. O. Peters, F. P. Peterson. Mr. Greendlinger was introduced by Professor Wilhelm Magnus, Dr. Chen by Dr. R. A. Willoughby. Abstracts of the contributed papers appeared in the April and June, 1958 issues of the *Notices* of the Society.

The Council met on Friday afternoon, April 25, 1958.

The Secretary announced the election of the following ninety-eight persons to ordinary membership in the Society:

Mr. John Abramowich, University of California, Berkeley;

Mr. N. G. Anton, Anton Electronic Laboratories, Brooklyn, New York;

Miss Marjorie J. Bakirakis, Hood College;
Mr. P. J. Blecke, Jr., University of Chicago;
Mr. L. E. Blumenson, Columbia University;
Mr. T. E. Bonner, University of Illinois;
Mr. W. R. Brown, Republic Aviation Corporation, Farmingdale, New York;
Mr. F. J. Broughton, Research Products Company, San Antonio, Texas;
Mr. B. R. Buzby, Indiana University;
Mr. R. L. Causey, Ramo-Wooldridge Corporation, Los Angeles, California;
Dr. T. C. Chen, International Business Machines Research Laboratory, Ossining,
New York;
Mr. D. R. Childs, Westinghouse Electric Corporation, Pittsburgh, Pennsylvania;
Professor Edward M. Corson, University of Delaware;
Professor E. R. Creasy, Pennsylvania Military College;
Dr. R. B. Dawson, Jr., U. S. Department of Defense, Washington, D. C.;
Professor M. H. DeGroot, Carnegie Institute of Technology;
Mr. R. S. Dinsmore, Stanford University;
Mr. J. J. Dood, University of Illinois;
Mrs. Ellen H. Dunlap, Wayne State University;
Dr. A. B. Farnell, CONVAIR, San Diego, California;
Rev. Donald Faught, Assumption University of Windsor, Windsor, Ontario;
Dr. F. J. Fayers, California Research Corporation, La Habra, California;
Mr. R. H. Femenias, University of Miami;
Mr. P. C. Fife, New York University;
Miss Czerna A. Flanagan, U. S. Naval Ordnance Test Station, China Lake, Cali-
fornia;
Mr. W. T. Ford, The Texas Company, Bellaire, Texas;
Mr. H. R. Foster, Kay Electric Company, Pine Brook, New Jersey;
Mr. J. M. Freeman, Massachusetts Institute of Technology;
Mr. D. C. Fried, General Electric Company, Phoenix, Arizona;
Mr. G. S. Gayron, Ramo-Wooldridge Corporation, Los Angeles, California;
Mr. R. P. Gilbert, University of Pittsburgh;
Mr. R. G. Gillespie, Boeing Airplane Company, Seattle, Washington;
Dr. S. R. Goldner, New York University;
Mr. A. G. Gross, Rensselaer Polytechnic Institute;
Dr. Bernard Grunebaum, Shell Oil Company, Houston, Texas;
Professor R. M. Gundersen, Illinois Institute of Technology;
Mr. Alexander Hachigian, University of Illinois;
Mr. J. E. Hall, Clark College;
Dr. W. A. Hijab, American University of Beirut;
Dr. Antoinette K. Huston, Rensselaer Polytechnic Institute;
Professor P. J. Hutt, Marietta College;
Professor Wolodymyr Kalyna, Ukrainian Technical Institute of New York;
Mr. Julius Kane, New York University;
Mr. Ervin Kapos, Indiana University;
Mr. R. B. Kelman, University of Illinois;
Mr. T. F. Kimes, Carnegie Institute of Technology;
Mr. W. A. Kistler, Worcester Polytechnic Institute;
Dr. R. W. Klopfenstein, R.C.A. Laboratories, Princeton, New Jersey;
Professor Heinrich Larcher, Michigan State University;
Mr. G. F. Lehman, State of Iowa Employment Service, Davenport, Iowa;

Mr. J. C. Lewis, Prairie View Agricultural and Mechanical College;
Mr. C. F. Lindblade, Wright Junior College, Chicago, Illinois;
Mr. J. R. McCarthy, College of the Holy Cross;
Mr. M. L. Madison, Colorado State University;
Dr. C. J. Marcinkowski, Polytechnic Institute of Brooklyn;
Professor K. H. Matthies, University of Cincinnati;
Mr. T. B. Mattson, U. S. Steel Applied Research Laboratory, Monroeville, Pennsylvania;
Dr. Josephine J. Mehlberg, University of Chicago;
Mr. G. H. Meisters, Iowa State College;
Mr. R. T. Mertz, International Business Machines Corporation, New York, New York;
Dr. J. M. Miller, Esso Research & Engineering, Linden, New Jersey;
Dr. A. H. Mitchell, International Business Machines Corporation, Poughkeepsie, New York;
Mr. R. B. Moler, University of Rochester;
Mrs. Ruth D. O'Dell, Brown University;
Professor Reinhard Oehme, Institute for Advanced Study;
Mr. R. C. O'Neill, Columbia University;
Mr. L. N. Orloff, Pacific Gas & Electric Company, San Francisco, California;
Mr. D. L. Patten, University of Oklahoma;
Mr. R. W. Pearson, American Machine & Foundry Company, Boston, Massachusetts;
Miss Nora Pernavs, University of Detroit;
Mr. J. D. Pincus, New York University;
Professor Boris Podolsky, University of Cincinnati;
Mr. Jehuda Rav, Hofstra College;
Mr. E. D. Rogak, University of Michigan;
Dr. J. H. Rosenbaum, Shell Development Company, Houston, Texas;
Mr. R. F. Rothschild, John Stuart Inc., New York, New York;
Mr. Arthur Schlissel, Brooklyn College;
Professor H. H. Schneider, University of Nebraska;
Mr. T. A. Schoen, University of Cincinnati;
Mr. H. S. Shank, University of Chicago;
Dr. M. W. Shelly, Ohio State University;
Dr. Johann Sonner, Aeronautical Research Laboratory, WPAFB;
Mr. J. F. Spalding, General Electric Company, Utica, New York;
Professor R. L. Stanley, Washington State College;
Professor R. H. Stevens, University of Cincinnati;
Mr. A. L. Stone, Reed College;
Mr. E. J. Stovall, Jr., University of California, Los Angeles;
Mr. H. W. Sullivan, David Bogen Company, Paramus, New Jersey;
Professor T. E. Sydnor, Pasadena City College;
Mr. Y. A. Tajima, Olin Mathieson Chemical Corporation, New York, New York;
Mr. L. F. Tomko, U. S. Naval Air Development Center, Johnsville, Pennsylvania;
Dr. S. B. Townes, University of Hawaii;
Mr. R. I. VanNice, Westinghouse Electric Corporation, Pittsburgh, Pennsylvania;
Mr. H. J. Weinitschke, Massachusetts Institute of Technology;
Mr. Clifford Wight, David Taylor Model Basin, Washington, D. C.;

Mr. P.-K. Wong, Carnegie Institute of Technology;
 Mr. J. L. Wulff, Sacramento State College;
 Professor R. L. Yates, University of Houston.

It was reported that the following seventeen persons had been elected to membership on nomination of institutional members as indicated:

University of Alabama: Mr. G. E. Smallwood.

Harpur College: Mr. H. E. Fleming.

Johns Hopkins University: Professor D. H. Andrews, Miss Ruth L. Bari, Mr. J. T. Johnson, Mr. J. W. Marvin, Mr. R. K. Mento, Miss Janet J. Mullally, Mr. J. P. Shanahan.

Kenyon College: Mr. R. E. Mosher.

University of Missouri: Mr. N. E. Foland, Mr. C. J. Penning, Mr. C. M. Warden.

Oregon State College: Mr. J. E. McFarland, Mr. G. G. Town.

University of Rochester: Mr. W. B. Pitt.

U. S. Air Force Academy: Colonel J. W. Ault.

The Secretary announced that the following had been admitted to the Society in accordance with reciprocity agreements with various mathematical organizations: *Dansk Matematisk Forening:* Mr. E. T. Poulsen; *Deutsche Mathematiker-Vereinigung:* Professor Hans-Joachim Kanold; *London Mathematical Society:* Dr. Denis Rutovitz; *Société Mathématique de France:* Mr. Jacques Collot, Dr. Jun-ichi Hano, Professor G. C. Hirsch, Professor Jean-Pierre Kahane, Dr. L. E. Motchane.

The following Presidential appointments were reported: as an Invitations Committee for a Summer Institute on Number Theory in 1959: Burton W. Jones, Chairman, P. T. Bateman, Alfred Brauer, D. H. Lehmer, Ivan Niven, A. L. Whiteman; as an Arrangements Committee for the Annual Meeting in Philadelphia in January, 1959: Emil Grosswald, Chairman, P. A. Caris, J. H. Curtiss, Robert Ellis, H. M. Gehman, W. H. Gottschalk, R. D. Schafer, G. E. Schweigert, E. T. Yang; as a member of the Employment Register Supervisory Committee for a period of one year, and as Chairman of the Committee: W. M. Hirsch; as Chairman of the Organizing Committee for Summer Institutes: R. H. Bing; as a member of the Organizing Committee for Summer Institutes for a three year period beginning July 1, 1958: Marshall Hall; as a Committee to Study New Approaches to High School Mathematics: A. A. Albert, E. G. Begle, Lipman Bers, A. E. Meder, G. B. Price, Henry Van Engen, R. L. Wilder, S. S. Wilks.

The Secretary reported that the following persons have accepted invitations to deliver hour addresses: Eldon Dyer, B. J. Pettis, Walter

Rudin, at the Summer Meeting in Cambridge; Leon Henkin, at Pomona College, November 21, 22, 1958; E. E. Floyd, at Durham, North Carolina, November 28, 29, 1958; Olga Taussky-Todd, at the April Meeting, Monterey, California, 1959; E. A. Michael, at the June Meeting in the Far West, 1959. J. M. Burgers has accepted an invitation to deliver the Gibbs Lecture at the Philadelphia Meeting in January, 1959.

The President has appointed the following persons to represent the Society: Henry J. Osner, at the dedication of the new campus at Fresno State College; Bernard Vinograde, at the Centennial Celebration of Iowa State College; W. R. Hutcherson, at the inauguration of Robert Manning Strozier as president of Florida State University; L. T. Ratner, at the inauguration of Stephen Junius Wright as President of Fisk University; Adrienne S. Rayl, at the inauguration of President Henry Stanford King at Birmingham-Southern College; Julian D. Moncill, at the inauguration of Frank Anthony Rose as president of the University of Alabama. The Delegates to the International Congress of Mathematicians in Edinburgh will be Richard Brauer, A. A. Albert, Nathan Jacobson, N. E. Steenrod, and Salomon Bochner.

The Council voted to approve the recommendation of the Colloquium Editorial Committee that Volume 29, *Foundations of algebraic geometry* by André Weil be reprinted.

The recommendation of the Applied Mathematics Committee that a symposium on Nuclear Reactor Theory be held at the Society's Eastern meeting in April, 1959, was approved.

The Council elected J. A. Dieudonné and A. M. Gleason to the editorial board of the American Journal of Mathematics to fill out the unexpired terms of André Weil and Harish-Chandra, respectively, whose resignations were effective April 1, 1958. The term of Professor Dieudonné expires December 31, 1958, and that of Professor Gleason December 31, 1959.

M. H. Heins was elected a representative of the Society to the Division of Mathematics of the National Research Council to fill out the unexpired term of S. C. Kleene, whose term expires June 30, 1959.

The Secretary reported that the officers of the Society were currently in receipt of a considerable number of requests from National Representatives and Senators to support specific legislation relating to financial or other support of science and education. The Council voted to refer such matters to the Conference Board of the Mathematical Sciences.

The Council voted that the Executive Director be asked to make a salary survey in May, 1958, similar to the survey made by the Committee on Economic Status of Teachers in May, 1957, and that the results of the survey be published in the *Notices*.

The Council authorized the President to appoint a committee to discuss the question of publishing Collected Works of Mathematicians.

R. D. SCHAFFER,
Associate Secretary
JOHN W. GREEN,
Secretary