THE APRIL MEETING IN NEW YORK

The four hundred twenty-fourth meeting of the American Mathematical Society was held at Columbia University on Friday and Saturday, April 25–26, 1947. The attendance was over 300, including the following 300 members of the Society:

C. R. Adams, C. F. Adler, R. P. Agnew, E. J. Akutowicz, Leonidas Alaoglu, T. W. Anderson, C. B. Allendoerfer, R. G. Archibald, L. A. Aroian, M. C. Ayer, R. A. Bari, Joshua Barlaz, P. T. Bateman, G. E. Bates, M. F. Becker, E. G. Begle, Richard Bellman, Stefan Bergman, Arthur Bernstein, Felix Bernstein, Lipman Bers, D. H. Blackwell, Gertrude Blanch, J. H. Blau, R. P. Boas, H. W. Bode, G. L. Bolton, Samuel Borofsky, J. M. Boyer, A. D. Bradley, H. W. Brinkmann, Paul Brock, A. B. Brown, G. W. Brown, R. H. Brown, E. F. Buck, R. C. Buck, L. H. Bunyan, R. S. Burington, J. C. Burkill, Herbert Busemann, K. A. Bush, Hobart Bushey, J. H. Bushey, K. E. Butcher, Albert Cahn, S. S. Cairns, W. R. Callahan, H. H. Campaigne, K. Chandrasekharan, J. O. Chellevold, Herman Chernoff, Claude Chevalley, Edmund Churchill, J. A. Clarkson, M. D. Clement, R. M. Cohn, I. S. Cohen, Nancy Cole, T. F. Cope, Richard Courant, M. J. Cox, F. G. Critchlow, H. B. Curry, J. H. Curtiss, M. D. Darkow, A. S. Day, S. P. Diliberto, J. L. Doob, C. H. Dowker, Y. N. Dowker, William H. Durfee, Churchill Eisenhart, Benjamin Epstein, Ky Fan, J. M. Feld, William Feller, F. G. Fender, A. D. Fialkow, L. A. Fine, C. D. Firestone, W. B. Fite, D. A. Flanders, M. C. Foster, F. H. Fowler, G. A. Foyle, W. C. G. Fraser, Gerald Freilich, Bernard Friedman, K. O. Friedrichs, C. S. Gardner, Irving Gerst, J. H. Giese, B. P. Gill, Leonard Gillman, V. D. Gokhale, H. E. Goheen, H. H. Goldstine, A. W. Goodman, R. O. Goodman, Saul Gorn, W. H. Gottschalk, F. G. Gravalos, C. H. Graves, H. J. Greenberg, Bernard Greenspan, Harriet Griffin, George Grossman, E. J. Gumbel, D. W. Hall, G. J. Haltiner, R. W. Hamming, Duncan Harkin, Gerald Harrison, Philip Hartman, K. E. Hazard, L. B. Hedge, G. A. Hedlund, A. E. Heins, M. H. Heins, Alex Heller, L. A. Henkin, T. H. Hildebrandt, Einar Hille. P. G. Hoel, Banesh Hoffmann, T. R. Hollcroft, E. M. Hull, Witold Hurewicz, L. C. Hutchinson, W. H. Ingram, R. C. James, S. A. Joffe, Fritz John, R. E. Johnson, A. W. Jones, L. G. Jones, Mark Kac, Aida Kalish, Edward Kasner, Stanley Katz, M. E. Kellar, H. S. Kieval, F. L. Kiokemeister, J. R. Kline, Morris Kline, E. G. Kogbetliantz, E. R. Kolchin, B. O. Koopman, Jack Laderman, M. E. Ladue, R. E. Langer, P. D. Lax, Solomon Lefschetz, D. H. Lehmer, Benjamin Lepson, Howard Levi, Norman Levinson, D. C. Lewis, Marie Litzinger, Charles Loewner, L. H. Loomis, E. R. Lorch, Lee Lorch, A. N. Lowan, C. I. Lubin, E. H. Luchins, Brockway McMillan, E. J. McShane, L. A. MacColl, R. E. MacKenzie, G. W. Mackey, Saunders MacLane, H. M. MacNeille, H. F. MacNeish, A. W. Manning, Murray Mannos, A. J. Maria, M. H. Maria, J. W. Marshall, M. H. Martin, Imanuel Marx, F. I. Mautner, S. Minakshisundaram, A. K. Mitchell, T. W. Moore, K. A. Morgan, I. R. Moses, G. D. Mostow, H. T. Muhly, F. J. Murray, D. S. Nathan, C. A. Nelson, E. D. Nering, E. N. Nilson, Louis Nirenberg, P. B. Norman, Lawrence Norwood, C. O. Oakley, E. J. Olson, A. F. O'Neill, F. W. Owens, J. C. Oxtoby, J. S. Oxtoby, G. W. Patterson, L. G. Peck, Anna Pell-Wheeler, C. R. Phelps, R. S. Phillips, Everett Pitcher, F. V. Pohle, William Prager, Walter Prenowitz, G. B. Price, M. H. Protter, Hans Rademacher, Arthur Radin, John Raleigh, C. E. Rickart, G. de B. Robinson, Mina Rees, Daniel Resch, J. S. Rhodes, Moses Richardson, R. G. D. Richardson,

F. D. Rigby, J. F. Ritt, M. S. Robertson, J. B. Robinson, R. M. Robinson, S. L. Robinson, Ira Rosenbaum, L. J. Rosenbaum, R. A. Rosenbaum, J. H. Rosenbloom, M. A. Rosenlicht, A. E. Ross, Charles Saltzer, Arthur Sard, Samuel Saslaw, S. A. Schaaf, A. T. Schafer, R. D. Schafer, I. J. Schoenberg, Lowell Schoenfeld, I. E. Segal, H. N. Shapiro, Max Shiffman, D. N. Silver, David Singer, P. A. Smith, Andrew Sobczyk, George Springer, E. P. Starke, Fritz Steinhardt, J. J. Stoker, C. N. Stokes, E. G. Straus, L. M. Straus, Walter Strodt, Fred Supnick, J. L. Synge, M. M. Sullivan, Otto Szász, W. C. Taylor, J. M. Thomas, Hing Tong, C. C. Torrance, J. W. Tukey, Annita Tuller, H. E. Vansant, H. S. Vandiver, G. L. Walker, A. D. Wallace, Henry Wallman, C. T. Wang, J. A. Ward, W. G. Warnock, Herbert Federer, Alan Wayne, J. V. Wehausen, Alexander Weinstein, F. P. Welch, Louis Weisner, G. W. Whitehead, P. M. Whitman, W. F. Whitmore, Albert Wilansky, C. S. Williams, John Williamson, Jacob Wolfowitz, A. W. Wundheiler, M. A. Wurster, J. W. Young, Oscar Zariski, H. J. Zimmerberg, Leo Zippin, O. J. Zobel, M. F. Zucker, Antoni Zygmund.

The meeting opened Friday afternoon at 2:00 with an address on *The small and the large in variational analysis* by Professor Max Shiffman of New York University. Vice President Saunders MacLane presided.

On Saturday morning there were two sections for contributed papers: one in Analysis in which Professor G. A. Hedlund presided and one in Algebra and Topology in which Professor A. D. Wallace presided. On Saturday afternoon there were two sections for contributed papers: one in Analysis, in which Professor I. J. Schoenberg presided, and one in Applied Mathematics, Geometry and Logic in which Professor H. A. Rademacher presided.

A 2:30 P.M. Saturday Professor Claude Chevalley of Princeton University gave an address on the *Theory of algebraic Lie groups.* Professor Solomon Lefschetz presided.

The Council met in the Men's Faculty Club at 12:15 P.M. on April 26, 1947.

The Secretary announced the election of the following seventy-five persons to ordinary membership in the Society:

Mr. Loren Wesley Akers, University of Kansas;
Dr. Binyamin A. Amirà, Hebrew University, Jerusalem, Palestine;
Professor German Ancochea, Universidad de Salamanca, Salamanca, Spain;
Mr. James I. Asnin, Colorado Fuel and Iron Corporation, Denver, Colo.;
Mr. Frederick Edward Atkins, State Teachers College, California, Pa.;
Mr. Howard Hayden Barnett, University of Kansas;
Mr. Frank Samuel Beckman, Pratt Institute;
Professor William Henry Bradford, John McNeese Junior College of Louisiana State University;
Miss Helen J. Bradley, University of Tennessee;
Mr. Roy P. Brady, Hunter College;
Miss Ruth Alice Brendel, University of Buffalo;
Professor Grover Preston Burns, Marshall College, Huntington, W. Va.;
Mr. Franklyn George Creese, San Leandro, Calif.;

Mr. Walter Melvin DeCew, McGraw-Hill Book Company;
Mr. Eliseo Mark Di Domenica, Drexel Institute of Technology;
Miss Genevieve Hazel Dixon, Buffalo, N. Y.;
Miss Mary Patricia Dolciani, Cornell University;
Professor Theodore Dreier, Black Mountain College, Black Mountain, N. C.;
Professor Leonard Philip Edwards, University of New Brunswick;
Professor Frank Mahony Ellis, Youngstown College;
Professor Herman Harvey Ferns, University of Saskatchewan;
Professor Aaron D. Fleshler, Sampson College, Sampson, N. Y.;
Dr. Curtis Maxwell Fulton, University of California at Los Angeles;
Mr. Lewis McLeod Fulton, Jr., Duke University;
Dr. Lårs Jakob Gårding, Lund University;
Dr. Irving Gerst, Control Instrument Company, Brooklyn, N. Y.
Mr. Charles C. Goldman, University of Cincinnati;
Mr. Irwin Leonard Goldman, Columbia University;
Mr. Leon Goldstein, Naval Ordnance Plant Laboratory, Indianapolis, Ind.;
Mr. Max Goldstein, Los Alamos Scientific Laboratory, Los Alamos, N. Mex.;
Mr. Arthur Grad, Stanford University;
Deborah Tepper Haimo (Mrs. Franklin), Cambridge, Mass.;
Mr. George Charles Helme, Pratt Institute;
Mr. Donald Lincoln Herr, Control Instrument Company, Brooklyn, N. Y.;
Mr. Robert Eugene Horton, University of California at Los Angeles;
Mr. Hai-Tsin Hsü, Yale University;
Mr. Eugene Isaacson, New York University;
Mr. Hyman B. Kaitz, National Income Division, Department of Commerce, Wash-
    ington, D. C.;
Mr. Stanley Katz, Hydrocarbon Research, Inc., New York, N. Y.;
Mr. J. Lee Kavanau, University of California at Los Angeles;
Professor M. Wiles Keller, Purdue University;
Mr. Samuel George Kneale, University of Kansas;
Mr. Hendrik S. Konijn, State Department, Washington, D. C.;
Mr. Thomas Phillip George Liverman, University of Delaware;
Mr. Jens Lloyd Lund, Oakland, Calif.;
Mr. Charles Edward Mack, Jr., Grumman Aircraft Engineering Corporation, Beth-
    page, N. Y.;
Mr. L. Kenton Meals, University of Missouri;
Mr. James William Mettler, State Teachers College, California, Pa.;
Mr. Harry Frederick Mist, University of Chicago;
Professor D. S. Mitrinovitch, University of Skopié, Skopié, Jugoslavia;
Professor Alexander McFarlane Mood, Iowa State College of Agriculture and Me-
    chanical Arts;
Mr. Albert Harrison Moore, Pratt Institute;
Mr. Allen Thurmond Myers, University of Arizona;
Mr. Kenneth Neal Nickel, University of Kansas;
Mr. Henry Joseph Osner, University of California;
Dr. Morris Ostrofsky, Gulf Oil Corporation, Pittsburgh, Pa.;
Mr. Arthur Radin, College of the City of New York;
Mr. Hans Vilhelm Rådström, Matematiska Institutet, Stockholms Högskola, Stock-
    holm, Sweden;
Mr. Andress Owen Ridgway, University of Maryland;
Mr. James Daniel Riley, University of Kansas;

Mr. Saul Rosen, University of Delaware;

Mr. Maxwell Alexander Rosenlicht, Brooklyn, N. Y.;

Miss Joyce Rubin, Polytechnic Institute of Brooklyn and Seward Park High School, Brooklyn, N. Y.;

Mr. Harry Daniel Ruderman, Manhattan High School of Aviation Trades, New York, N. Y.

Mr. Arnold Bernard Schacknow, Polytechnic Institute of Brooklyn;

Sister Mary Charles Schaffer, Immaculate Heart College, Los Angeles, Calif.;

Dr. Menahem Max Schiffer, Institute of Theoretical Physics, Hebrew University, Jerusalem, Palestine;

Dr. Alfred Ernest Schild, Carnegie Institute of Technology;

Dr. Mohammad Raziuddin Siddiqi, Research Institute, Osmania University, Hydera-bad-Deccan, India;

Mr. Daniel N. Silver, Newark College of Engineering;

Mr. Theodor Teichmann, Princeton University;

Professor Jose Joaquin Trejos-Fernández, University of Costa Rica;

Mr. Gordon Allen Tully, Comptroller's Office, State Capitol, Little Rock, Ark.;

Mr. John R. Van Andel, Aeronautical Instruments Laboratory, Naval Air Material Center, Philadelphia, Pa.;

Dr. Leo M. Wulf, Monmouth Junior College, Long Branch, N. J.

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

University of Alabama: Mr. Haskell Cohen;

University of Arizona: Mr. Joseph Foster Foster, Jr.;

University of Chicago: Messrs. Harley Flanders, Albert Furman, Daniel Orloff, Efrem Herbert Ostrow, Lyman C. Peck, Herman Rubin, and Clayton James Thomas;

College of the City of New York: Mr. Martin David Davis;

Columbia University: Mr. John Bartholomew Webster;

Harvard University: Messrs. Paul Olum and William Gurdon Saltonstall;

Institute for Advanced Study: Dr. Andrew Donald Booth, Miss Kathleen Hyldia Valerie Britten, Dr. John Charles Burkill, Mr. Komaravolu Chandrasekharan, Dr. Jean Frédéric Delsarte, Professor Beno Eckmann, Dr. Subbaramiah Minak-shisundaram;

State University of Iowa: Miss Helen Emogene McCue;

Kenyon College: Mr. Thomas Forbes Smith;

University of Maryland: Miss Jean Marie Boyer, Mr. Stuart Troy Haywood;

Michigan State College: Mr. James Goodrich Renno, Jr.;

University of Missouri: Mr. Jerry William Gaddum;

New York University: Mr. Louis Nirenberg;

Oklahoma Agricultural and Mechanical College: Mr. R. R. Reynolds;

Pennsylvania State College: Messrs. Frank T. Kocher, Jr., and James Russel Ziegler;

Rice Institute: Mrs. Erna Herzog Pearson, Messrs. Howard Edward Taylor and Thomas Jefferson White;

University of Rochester: Mr. Erich W. Marchand;

Stanford University: Messrs. Wray Grayson Brady, Burnett Chandler Meyer, Albert Boris Novikoff, and Joseph Ullman;

University of Toronto: Messrs. Hubert Whitfield Ellis, Theodore Franklin Morris, Leo Moser, and Ralph Gordon Stanton;

University of Washington: Mr. George Edward Uhrich;
Wesleyan University: Mr. Richard Godfrey Billard;
University of Wisconsin: Messrs. Edmond Darrell Cashwell, Paul Lawrence Chessin,
   Robert Davies, Arie Gaalswyk, Carlton Wayne Larson, Harvey C. McKenzie,
   Merrill Roberts Moore, Donald Ross Morrison, Donald Alan Norton, Francis
   Harry Pott, Elmer George Schuld.

The Secretary announced that Major I. B. Perrott of the College of
Technology, Leicester, England, had been admitted to the Society in
accordance with the reciprocity agreement with the London Mathe-
matical Society.

The Secretary announced the election by mail of the University of
British Columbia and the University of Tennessee to institutional
contributing membership in the Society. The Council voted to elect
Southern Illinois Normal University to institutional membership.

The following appointments by President Einar Hille of repre-
sentatives of the Society were reported: Professor E. J. Moulton at
the Conference on Science as part of the Centennial Celebration of
Rockford College on February 21–23, 1947; Professor H. J. Ettlinger
at the inauguration of William Vermillion Houston as President of The
Rice Institute on April 10, 1947; Professor H. A. Rademacher at the
Fifty-first Annual Meeting of the American Academy of Political and
Social Science on April 18–19, 1947; Professor F. E. Johnston at the
inauguration of Leonard M. Elstad as President of Gallaudet College
on April 26, 1947; Professor F. R. Bamforth at the Centennial Con-
vocation of Otterbein College on April 26, 1947; Professor R. C.
Huffer at the Centennial Ceremony of Rockford College on May 3,
1947; Professor W. L. Ayres at the inauguration of George Dinsmore
Stoddard as President of the University of Illinois on May 16, 1947.

The following additional appointments by the President were re-
ported: Professors A. W. Tucker (Chairman), Nelson Dunford,
Samuel Eilenberg, W. T. Martin, and Gabor Szegö as a Committee
on the Reorganization of the Society's Programs; Professor T. F.
Cope and Dean A. E. Meder as auditors of the Society's accounts for
1947; Professor W. T. Reid as Chairman of the Committee on Places
of Meetings for 1947 and Professor C. B. Allendoerfer as a member
of the Committee on Places of Meetings for 1947–1949 (committee
now consists of Professors W. T. Reid, Chairman, C. B. Allendoerfer,
and G. B. Price); Professors Solomon Lefschetz (Chairman), Garrett
Birkhoff and Nelson Dunford as a committee to study the question
of cooperation with the Pan American Congress, to be held in Mexico
City in November, 1947; Professors C. C. MacDuffee (Chairman),
L. M. Graves, E. J. McShane, A. P. Morse, and A. W. Tucker as a

Committee on Nomination of Officers and Members of the Council for 1948; Professors F. D. Murnaghan (Chairman), W. T. Martin, and Gabor Szegö as a Committee to Select Gibbs Lecturers for 1948 and 1949; Professors J. R. Kline and M. H. Stone as representatives of the Society on the A.A.A.S. Inter-Society Committee on Science Foundation Legislation; Professor William Feller as liaison officer of the Quarterly of Applied Mathematics for the period 1947–1949; Professor C. O. Oakley as Chairman and Professors Garrett Birkhoff and R. M. Thrall as members of the Committee on Publicity, for the period 1947–1949 (committee now consists of Professors C. O. Oakley, Chairman, Garrett Birkhoff, J. B. Rosser, Dr. J. M. Thompson, Professors R. M. Thrall and R. J. Walker); Professors J. L. Synge (Chairman), Richard Courant, G. C. Evans, John von Neumann, William Prager, and Dr. Warren Weaver as a Committee on Applied Mathematics; Professors Saunders MacLane (Chairman), R. C. Archibald, J. L. Coolidge, G. C. Evans, Marston Morse, G. B. Price, Hermann Weyl, and J. W. T. Youngs as a Finance Committee in connection with the Birkhoff Memorial Project; Professors D. V. Widder (Chairman), C. R. Adams, R. E. Langer, Marston Morse, and M. H. Stone as an Editorial Committee in connection with the Birkhoff Memorial Project.

The Secretary reported the following actions taken by mail since the Christmas meeting of the Council: (1) the adoption of a report, setting up procedures in accordance with which a mathematical organization might become a sponsor of Mathematical Reviews; (2) the approval of a report of the Committee on Applied Mathematics, providing for a Symposium on *Non-linear problems in mechanics of continua*, to be held at Brown University on August 2–4, 1947; (3) approval of a recommendation of the Colloquium Editorial Committee that Professor Richard Brauer of the University of Toronto be invited to deliver a series of Colloquium Lectures at the 1948 Summer Meeting. The Secretary also reported Professor Brauer's acceptance of this invitation.

The Secretary reported that the following had been chosen as the voting representatives of editorial committees on the Council for the year 1947: Bulletin, Professor R. E. Langer; Transactions, Professor Oscar Zariski; Colloquium Publications, Professor J. F. Ritt; American Journal of Mathematics, Professor Richard Brauer; Mathematical Reviews, Professor O. E. Neugebauer; Mathematical Surveys, Professor J. L. Walsh. It was also reported that Professor J. F. Ritt had been selected as Chairman of the Colloquium Editorial Committee for the year 1947.

It was reported that certain changes in the By-Laws had been approved by the Society at the February, 1947, meeting. These changes create rotation in the terms of office of members of the Board of Trustees and provide for an increase in membership dues. The sections of the By-Laws, as revised, were published as part of the report of the February Meeting in New York in the May issue of this BULLETIN.

It was reported that the Society had cooperated with the Journal of Mathematics and Physics by distributing to members a circular, advertising the Journal and offering a reduced subscription rate to Society members.

Recommendations regarding meetings of the Society in the midwest were presented and adopted as follows: (1) That the Society continue the policy of holding one midwestern meeting a year at some institution away from Chicago; (2) That two meetings be held annually in the Chicago area; (3) That no regular meeting of the Society be held in the midwest at the time of the Annual Meeting at the University of Georgia; (4) That the November, 1947, meeting in the midwest be held at Washington University.

The Council voted unanimously to accept the invitation of Harvard University to hold the International Congress of Mathematicians at that institution in 1950.

A report from the Board of Trustees regarding the questions of the Society's library and adequate housing for the Society was presented and discussed. The Council authorized the President to appoint, in conjunction with the Board of Trustees, a committee to study the problems involved.

The resignation of Professor A. C. Schaeffer as Associate Secretary for the far west was accepted with regret.

Certain invitations to deliver addresses were announced: Professor C. B. Allendoerfer for the October, 1947, meeting in New York City; Professors Marshall Hall and P. R. Halmos for the November, 1947, meeting in the midwest; and Professor D. H. Lehmer for the November, 1947, meeting in the far west.

The Council voted to accept the recommendation of the Committee to Select Gibbs Lecturers that Professor Hermann Weyl be invited to deliver the twenty-second Josiah Willard Gibbs Lecture at the 1948 Annual Meeting. The Secretary reported the appointment of Professor Gabor Szegö as Chairman of this Committee, replacing Professor F. D. Murnaghan, and of Professor J. J. Stoker as a new member of the Committee.

The final report of the Special Committee on Applied Mathematics

(Professor J. L. Synge, Chairman) was presented. In accordance with this report, certain problems were referred by the Council to the Committee on Applied Mathematics, for study and recommendation to the Council. These included problems concerning the desirability of setting up a separate division for applied mathematics, the establishment of a Committee on the Organization of Known Results, and a Committee on Advanced Reference Texts in Applied Mathematics. A statement entitled *Instruction and Research in Applied Mathematics*, prepared by the Special Committee on Applied Mathematics and approved by the Council, appears elsewhere in this issue of the BULLETIN.

Professor Saunders MacLane, reporting for the Finance Committee of the Birkhoff Memorial Project, announced that the solicitation of particular groups was in progress and that subscriptions and contributions would be requested from members of the Society about June 1, 1947.

Titles and cross references to the abstracts of papers read at the meeting follow below.

Papers 1–8 were read in the Analysis section Saturday morning; papers 9–17 in the Algebra and Topology section Saturday morning; papers 18–22 in the Analysis section Saturday afternoon; papers 23–27 in the Applied Mathematics, Geometry and Logic section Saturday afternoon; papers 28–67 were presented by title. Paper number 8 was read by Dr. Szász, number 14 by Professor Hall, number 16 by Miss Boyer, and number 18 by Mr. Chandrasekharan. Dr. Toralballa was introduced by Professor J. J. Lynch, Mr. Shen by Professor Antoni Zygmund, and Professor Fekete by Professor Otto Szász.

1. L. V. Toralballa: *The integral in a normed division quasi-ring.* (Abstract 53-5-235.)

2. Yael N. Dowker: *Invariant measure and the ergodic theorems.* (Abstract 53-5-197.)

3. F. G. Gravalos: *A note on dynamical systems with two degrees of freedom.* (Abstract 53-5-203.)

4. D. C. Lewis: *Generalized orthonormality of polynomials.* (Abstract 53-5-215.)

5. Charles Loewner: *A topological characterization of a class of integral operators.* (Abstract 53-5-216.)

6. Albert Wilansky: *An application of Banach linear functionals to the theory of summability.* Preliminary report. (Abstract 53-5-240.)

7. Alexander Weinstein: *On Dirichlet's discontinuous factor and a class of many-valued functions.* (Abstract 53-5-238.)

8. K. Chandrasekharan and Otto Szász: *On Bessel summation.* (Abstract 53-5-196.)

9. R. D. Schafer: *The exceptional simple Jordan algebras.* (Abstract 53-5-180.)

10. Grace E. Bates: *Decompositions of a loop into characteristic free summands.* (Abstract 53-5-164.)

11. William H. Durfee: *Quadratic forms over fields with a valuation.* (Abstract 53-5-168.)

12. J. A. Ward: *Analytic functions in linear algebras.* (Abstract 53-5-185.)

13. G. de B. Robinson: *On a theorem of Nakayama concerning the prime factors of the degrees of the irreducible representations of the symmetric group.* (Abstract 53-5-179.)

14. D. W. Hall and D. C. Lewis: *On coloring six-rings.* (Abstract 53-5-273.)

15. C. H. Dowker: *Topologies of infinite complexes.* (Abstract 53-5-271.)

16. Jean M. Boyer and D. W. Hall: *On Peano spaces as continuous images of intervals.* (Abstract 53-5-270.)

17. A. E. Ross: *On continuous transformations of a Jordan curve.* (Abstract 53-3-162.)

18. K. Chandrasekharan and S. Minakshisundaram: *Some results on double Fourier series.* (Abstract 53-5-195.)

19. D. H. Lehmer: *Approximations to the surface area and electrostatic capacity of the ellipsoid.* (Abstract 53-5-214.)

20. E. R. Lorch: *On certain implications which characterize Hilbert space.* (Abstract 53-5-217.)

21. R. C. Buck: *Integral valued entire functions.* (Abstract 53-5-193.)

22. Mark Kac: *Distribution properties of certain gap sequences.* (Abstract 53-7-290.)

23. A. E. Heins: *Water waves over a channel with a dock.* (Abstract 53-5-248.)

24. R. M. Robinson: *On the decomposition of spheres.* (Abstract 53-5-262.)

25. Ira Rosenbaum: *A method of determining the nth q-ary truth-function in m-valued logic.* (Abstract 53-5-264.)

26. Felix Bernstein: *A lattice color problem.* Preliminary report. (Abstract 53-5-267.)

27. J. L. Synge: *Apsidal angles for symmetrical dynamical systems with two degrees of freedom.* (Abstract 53-7-296.)

28. P. T. Bateman: *Modular subgroup of finite index*. Preliminary report. (Abstract 53-3-109-*t*.)

29. Richard Bellman: *On the boundedness of solutions of nonlinear differential and difference equations*. (Abstract 53-3-120-*t*.)

30. Richard Bellman: *On the solutions of the heat equation*. Preliminary report. (Abstract 53-5-190-*t*.)

31. Richard Bellman: *On the stability of solutions of differential-difference equations*. Preliminary report. (Abstract 53-5-191-*t*.)

32. Stefan Bergman: *Functions satisfying linear partial differential equations and their properties*. (Abstract 53-5-121-*t*.)

33. Stefan Bergman and Menahem Schiffer: *On Green's and Neumann's functions in the theory of partial differential equations*. (Abstract 53-5-192-*t*.)

34. Richard Brauer: *Applications of induced characters*. (Abstract 53-3-110-*t*.)

35. Richard Brauer: *On Artin's L-series with general group characters*. (Abstract 53-3-111-*t*.)

36. Richard Brauer: *On the zeta-functions of algebraic number fields*. (Abstract 53-3-112-*t*.)

37. Leonard Carlitz and E. L. Cohen: *Divisor functions of polynomials in a Galois field*. (Abstract 53-3-113-*t*.)

38. R. P. Cesco: *On strong summability*. (Abstract 53-5-194-*t*.)

39. E. L. Cohen: *Sums of an even number of squares in $GF[p^n, x]$*. (Abstract 53-3-115-*t*.)

40. John DeCicco: *An extension of Euler's theorem on homogeneous functions*. (Abstract 53-3-150-*t*.)

41. John DeCicco: *Characterization of Halphen's theorem on central and parallel fields of force*. (Abstract 53-5-257-*t*.)

42. J. B. Díaz and H. J. Greenberg: *The determination of upper and lower bounds for the deflection of a clamped plate*. (Abstract 53-5-243-*t*.)

43. J. B. Díaz and Alexander Weinstein: *Schwarz' inequality and the methods of Rayleigh-Ritz and Trefftz*. (Abstract 53-5-244-*t*.)

44. C. H. Dowker: *An imbedding theorem for paracompact metric spaces*. (Abstract 53-3-157-*t*.)

45. Bernard Epstein: *Some inequalities relating to conformal mapping upon canonical slit-domains*. (Abstract 53-5-200-*t*.)

46. M. Fekete: *On generalized transfinite diameters*. (Abstract 53-7-288-*t*.)

47. K. O. Friedrichs: *On the non-occurrence of a limiting line in transonic flow*. (Abstract 53-7-292-*t*.)

48. K. O. Friedrichs: *Water waves on a shallow sloping beach*. (Abstract 53-7-293-*t*.)

49. K. O. Friedrichs and Hans Lewy: *Dock problem.* (Abstract 53-7-294-*t.*)

50. H. J. Greenberg and Witold Hurewicz: *The stability of periodic dynamical processes subject to discontinuous impulses.* (Abstract 53-5-247-*t.*)

51. Philip Hartman and Aurel Wintner: *Töplerian* (L^2)-*bases.* (Abstract 53-7-289-*t.*)

52. R. E. Johnson: *The modules of a ring.* Preliminary report. (Abstract 53-5-172-*t.*)

53. Mark Kac, Raphael Salem and Antoni Zygmund: *A gap theorem.* (Abstract 53-5-210-*t.*)

54. Edward Kasner and John DeCicco: *Differential geometric properties of the polar surfaces of a general algebraic surface.* (Abstract 53-5-260-*t.*)

55. C. N. Moore: *Generalized limits in general analysis.* III. (Abstract 53-5-220-*t.*)

56. John von Neumann and E. R. Lorch: *On the euclidean character of the perpendicularity relation.* (Abstract 53-5-221-*t.*)

57. Ira Rosenbaum: *A method of determining the number n correlated with the given truth table of an arbitrary q-ary function in m-valued logic.* (Abstract 53-5-265-*t.*)

58. I. M. Sheffer: *A limit theorem.* (Abstract 53-5-230-*t.*)

59. Y. C. Shen: *Interpolation to some classes of analytic functions by functions with pre-assigned poles.* (Abstract 53-5-231-*t.*)

60. Walter Strodt (National Research Fellow): *Note on quasi-harmonic functions.* Preliminary report. (Abstract 53-5-234-*t.*)

61. Otto Szász: *Quasi-monotone series.* (Abstract 53-7-291-*t.*)

62. L. V. Toralballa: *A generalization of the finite integral.* (Abstract 53-5-184-*t.*)

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66. G. T. Whyburn: *On n-arc connectedness.* (Abstract 53-5-286-*t.*)

67. Bertram Yood: *Regular and singular elements in the ring of operators on a Banach space.* Preliminary report. (Abstract 53-3-139-*t.*)

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