THE MARCH MEETING IN NEW YORK

The three hundred fortieth meeting of the American Mathematical Society was held at Columbia University on Friday and Saturday, March 26–27, 1937. The attendance included the following two hundred forty-seven members of the Society:

C. R. Adams, H. S. Adams, R. B. Adams, E. S. Akeley, E. B. Allen, V. A. Ames, R. C. Archibald, R. G. Archibald, Reinhold Baer, M. F. Becker, D. L. Bernstein, Felix Bernstein, A. C. Berry, Garrett Birkhoff, G. D. Birkhoff, A. H. Black, Gertrude Blanch, R. P. Boas, Salomon Bochner, H. F. Bohnenblust, Samuel Borofsky, C. B. Boyer, A. D. Bradley, H. W. Brinkmann, A. B. Brown, A. W. Bull, F. W. Burton, Herbert Busemann, J. H. Bushey, J. Hughes Bushey, S. S. Cairns, J. W. Calkin, A. D. Campbell, W. B. Campbell, P. A. Caris, Alonzo Church, A. H. Clifford, L. W. Cohen, George Comenetz, J. L. Coolidge, L. P. Copeland, Richard Courant, H. B. Curry, D. R. Curtiss, M. D. Darkow, Norman Davidowitz, J. J. De Cicco, Vincent Dillon, J. L. Doob, Arnold Dresden, Melvin Dresher, D. M. Dribin, Nelson Dunford, W. L. Duren, J. E. Eaton, L. P. Eisenhart, H. T. Engstrom, Aaron Fialkow, T. S. Fiske, W. B. Fite, W. W. Flexner, M. M. Flood, Tomlinson Fort, R. M. Foster, J. S. Frame, C. W. Franklin, Bernard Friedman, Kurt Friedrichs, Orrin Frink, T. C. Fry, B. P. Gill, R. L. Gilman, M. A. Girshick, J. W. Givens, Jr., W. O. Gordon, S. H. Gould, A. A. Grant, A. M. C. Grant, M. C. Graustein, W. C. Graustein, M. B. Greenebaum, J. A. Greenwood, L. W. Griffiths, C. C. Grove, F. C. Hall, Marshall Hall, Israel Halperin, Philip Hartman, B. A. Hausmann, E. K. Haviland, G. A. Hedlund, E. H. C. Hildebrandt, Einar Hille, Banesh Hoffman, Lulu Hofmann, T. R. Hollcroft, I. M. Hostetter, Harold Hotelling, S. E. Hotelling, E. M. Hull, Witold Hurewicz, M. H. Ingraham, Nathan Jacobsen, S. A. Joffe, R. A. Johnson, F. E. Johnston, M. L. Kales, E. R. van Kampen, Edward Kasner, L. S. Kennison, R. B. Kershner, P. W. Ketchum, Tsai-Hau Kiang, J. R. Kline, Morris Kline, M. S. Knebelman, A. W. Landers, M. K. Landers, A. E. Landry, Solomon Lefschetz, D. H. Lehmer, A. M. M. Lehr, Madeline Levin, S. B. Littauer, Marie Litzinger, L. A. Lorch, A. N. Lowan, L. L. Lowenstein, R. R. Lyle, N. H. McCoy, J. C. C. McKinsey, L. A. MacColl, Saunders MacLane, H. M. MacNeille, H. F. MacNeish, W. G. Madow, Karl Menger, A. N. Milgram, H. H. Mitchell, E. C. Molina, Deane Montgomery, Richard Morris, D. S. Morse, H. M. Morse, F. D. Murnaghan, F. J. Murray, D. S. Nathan, C. A. Nelson, John von Neumann, C. O. Oakley, Alta Odoms, Rufus Oldenburger, E. J. Olson, Oystein Ore, E. R. Ott, F. W. Owens, H. B. Owens, J. C. Oxtoby, C. K. Payne, W. F. Penney, B. J. Pettis, C. S. Pettis, H. B. Phillips, E. L. Post, Walter Prenowitz, G. B. Price, R. G. Putnam, H. A. Rademacher, S. M. Rambo, J. F. Randolph, H. W. Raudenbush, Robert Rawhouser, C. J. Rees, M. S. Rees, Moses Richardson, R. G. D. Richardson, John Riordan, J. F. Ritt, H. P. Robertson, M. S. Robertson, S. L. Robinson, J. B. Rosser, S. G. Roth, N. N. Royall, O. F. G. Schilling, I. J. Schoenberg, G. E. Schweigert, Wladimir Seidel, Stefan Serghiesco, I. M. Sheffer, Jacob Sherman, Max Shiff-

man, J. A. Shohat, C. G. Shover, L. P. Siceloff, L. L. Silverman, L. G. Simons, James Singer, C. E. Smith, P. A. Smith, W. M. Smith, Virgil Snyder, V. E. Spencer, G. W. Starcher, N. E. Steenrod, W. C. Strodt, M. M. Sullivan, J. L. Synge, J. D. Tamarkin, J. H. Taylor, J. M. Thomas, T. Y. Thomas, C. B. Tompkins, J. I. Tracey, A. W. Tucker, J. W. Tukey, Annita Tuller, H. L. Turrittin, J. L. Vanderslice, Oswald Veblen, R. L. Vitale, R. J. Walker, S. E. Warschawski, C. W. Watkeys, Warren Weaver, Louis Weisner, M. J. Weiss, A. P. Wheeler, H. S. White, A. L. Whiteman, Hassler Whitney, G. T. Whyburn, D. V. Widder, Norbert Wiener, L. R. Wilcox, S. S. Wilks, John Williamson, W. A. Wilson, Aurel Wintner, H. P. Wirth, W. H. Wise, B. C. Wong, D. W. Woodard, Oscar Zariski, Leo Zippin, O. J. Zobel, H. S. Zuckerman.

The meeting opened on Friday morning with two sectional sessions, one for Algebra and Statistics and one for Analysis and Geometry. Friday afternoon was devoted to a symposium on Laplace integrals at which the following addresses were delivered: *Functions analytic in a half plane and Laplace transforms*, by Professor J. D. Tamarkin; *Summability of Laplace integrals*, by Professor Einar Hille; *The iterated Laplace transform*, by Professor D. V. Widder. The discussion was led by Professors H. F. Bohnenblust and Salomon Bochner.

On Saturday morning there were two sectional sessions, one for Algebra and one for Analysis and Geometry. During Saturday morning, in an adjacent room, Professor Felix Bernstein demonstrated to all interested a new machine for producing various types of statistical distributions.

On Thursday preceding the meetings of the Society, a conference on Algebraic geometry, arranged by Professor Oscar Zariski, was held. A separate report of this conference appears elsewhere in this number of the Bulletin.

A meeting of the Council was held on Saturday at 1:00 p.m. in the Faculty Club of Columbia University. The election of the following persons to membership in the Society was announced by the Secretary:

Mr. Anthony Andrew Aucoin, Louisiana State University;
Mr. Raymond Clare Briant, Mellon Institute;
Mr. John Williams Calkin, Harvard University;
Professor Harold Scott Macdonald Coxeter, University of Toronto;
Mr. Raymond Howard Cramer, The Rice Institute;
Mr. Edgar D. Eaves, University of Tennessee;
Mr. Joseph William Eberman, Gatun, Canal Zone;
Dr. Bernard Friedman, New York University;

Mr. Roy LeForest Gilman, High School of Commerce, New York, N. Y.;

Dr. Joseph Williams Hahn, American National Insurance Company, Galveston, Tex.;

Dr. Ernest Albert Hedberg, Lander College, Greenwood, S. C.;

Sister Helen Sullivan, Mount Saint Scholastica College, Atchison, Kan.;

Mr. Coleman Herpel, Pennsylvania State College;

Dr. John Tom Hurt, Texas Agricultural and Mechanical College;

Mr. James D. Hutchinson, University of Houston;

Mr. Ernest Carlton Kennedy, The Rice Institute;

Mr. H. G. Landau, Carnegie Institute of Technology;

Brother Louis De La Salle, Saint Mary's College, Winona, Minn.;

Professor Dora McFarland, University of Oklahoma;

Miss Florence Lydia Munroe, Northampton High School, Northampton, Mass.;

Mr. John Purcell Nash, The Rice Institute;

Dr. Louis Albert Pipes, The Rice Institute;

Mr. Theodore H. Preiser, Mental Hospital, Bnei-Brak, Palestine;

Mr. Walter Tandy Scott, The Rice Institute;

Professor Roy Quincy Seale, Corpus Christi Junior College, Corpus Christi, Tex.;

Professor Elizabeth Cherry Strayhorn, Western Kentucky State Teachers College;

Dr. Abraham Haskel Taub, University of Washington;

Mr. Suvan T. Vadhana, University of Michigan.

As nominees of the University of California at Los Angeles:

Mr. John LeRoy Kelley, University of California at Los Angeles;

Mr. Ralph S. Phillips, University of Michigan.

As nominees of The Institute for Advanced Study:

Dr. Peter G. Bergmann, The Institute for Advanced Study;

Dr. Louis P. Bouckaert, Princeton University;

Dr. Herbert Busemann, The Institute for Advanced Study;

Professor Antonio Ireneo Flores, Madrid University;

Dr. James Wallace Givens, Jr., The Institute for Advanced Study;

Dr. Banesh Hoffmann, The Institute for Advanced Study;

Dr. Witold Hurewicz, University of Amsterdam;

Dr. Norman Levinson, The Institute for Advanced Study;

Professor Walther Mayer, University of Vienna;

Dr. Otto Franz Georg Schilling, The Institute for Advanced Study.

As nominees of the University of Pennsylvania:

Mr. Ebon Elbert Betz, University of Pennsylvania;

Mr. Albert Leon Whiteman, University of Pennsylvania.

It was announced that the following person had entered the Society under the reciprocity agreement with the London Mathematical Society:

Mr. Kenneth Povey, Queen's University, Belfast.

The following institution was elected to institutional membership in the Society:

University of Notre Dame.

The following appointments were announced: as representative of the Society at the Centenary Celebration of the Founding of Mt. Holyoke College on May 7–8, 1937, Professor N. H. McCoy; as representatives of the Society on the Council of the American Association for the Advancement of Science for 1937, Professors M. H. Ingraham and G. T. Whyburn; as Committee on Arrangements for the 1937 Annual Meeting, Professor K. P. Williams (chairman), Dr. B. C. Getchell, Professors T. R. Hollcroft, M. H. Ingraham, and Miss Juna M. Lutz; as Committee on Printing Contracts, Professors D. R. Curtiss (chairman), M. H. Ingraham, C. C. MacDuffee.

Future meetings of the Society are to be as follows: Iowa City, November 26–27, 1937; Indianapolis, December 28–30, 1937; New York City, February 26, 1938; Charlottesville, April 15–16, 1938; Chicago, April, 1938; Madison, summer, 1939.

It was announced that Professor John von Neumann had accepted the invitation to give the Colloquium Lectures in 1937 in place of Professor Jesse Douglas who resigned because of ill health, and that his subject will be *Continuous geometry*.

It was reported that Professor E. R. Hedrick, on account of his appointment as Vice-President and Provost of the University of California at Los Angeles, is resigning his position as Editor-in-chief of the Bulletin but will continue to be an Editor. Professor D. R. Curtiss was appointed Managing Editor for the remainder of this year. Resolutions were adopted expressing appreciation for the services of Professor Hedrick.

A report from the Committee on the Semicentennial Celebration of the Founding of the American Mathematical Society was presented by Executive Secretary T. C. Fry. The main features of this report are to be published separately in the Bulletin.

The Preliminary Committee on the International Congress of Mathematicians, consisting of Professors G. A. Bliss, E. W. Chittenden, A. B. Coble, L. P. Eisenhart, G. C. Evans, E. R. Hedrick, T. H. Hildebrandt, Einar Hille, J. R. Kline, H. M.

Morse, P. A. Smith, M. H. Stone, J. D. Tamarkin, J. L. Walsh, and Norbert Wiener, through its chairman, Dean L. P. Eisenhart, presented an extensive report outlining the organization of preparations for the Congress. The Congress is to be held in Cambridge, beginning about September 4, 1940, with Harvard University, Massachusetts Institute of Technology, and Radcliffe College acting jointly as hosts. To nominate officers and committees for the Congress, the following committee was appointed: Professors D. V. Widder (chairman), A. B. Coble, L. M. Graves, H. H. Mitchell, J. F. Ritt.

Titles and cross references to the abstracts of the papers (other than symposium addresses) read at this meeting follow below. Papers whose abstract numbers are followed by the letter t were read by title. The papers numbered 1 to 12 were read before the section for Algebra and Statistics, Professor J. F. Ritt presiding; those numbered 13 to 23 before the section for Analysis and Geometry, Professors Virgil Snyder and J. L. Synge presiding; those numbered 24 to 33 before the Saturday morning section for Algebra, Number Theory, and Group Theory, Professor Harold Hotelling presiding; those numbered 34 to 42 before the Saturday morning section for Analysis and Geometry, Professor W. A. Wilson presiding; besides, papers numbered 43 to 61 by title. Professor Norbert Wiener presided at the symposium. Mr. G. C. Watson was introduced by Professor G. T. Whyburn and Mr. H. A. Arnold by Professor A. D. Michal.

1. *The conjunctive equivalence of pencils of hermitian and anti-hermitian matrices*, by Dr. John Williamson. (Abstract 43-3-161.)

2. *Infinite symmetric differences.* I, *Absolute convergence* (preliminary report), by Dr. H. M. MacNeille. (Abstract 43-3-132.)

3. *The insolubility of quintic equations*, by Mr. Garrett Birkhoff. (Abstract 43-3-110.)

4. *A representation of generalized Boolean rings*, by Professors N. H. McCoy and Deane Montgomery. (Abstract 43-3-135.)

5. *Extension of a theorem of Markoff*, by Professor Oystein Ore. (Abstract 43-3-137.)

6. *On a general class of consistent definitions of summability*, by Professor L. L. Silverman. (Abstract 43-3-148.)

7. *A matching problem*, by Dr. J. A. Greenwood. (Abstract 43-3-123.)

8. *The generalized analysis of variance*, by Mr. W. G. Madow. (Abstract 43-3-134.)

9. *The large-sample distribution of the likelihood ratio for composite hypotheses*, by Professor S. S. Wilks. (Abstract 43-3-160.)

10. *Sampling distributions related to determinantal equations*, by Mr. M. A. Girshick. (Abstract 43-3-122.)

11. *Gaussian and Laplacian statistics*, by Professor Felix Bernstein. (Abstract 43-5-259.)

12. *Real symmetric trilinear forms*, by Professor Rufus Oldenburger. (Abstract 43-3-136.)

13. *General self-adjoint boundary conditions for second order partial differential operators of elliptic type* (preliminary report), by Mr. J. W. Calkin. (Abstract 43-3-114.)

14. *The differential geometry of series of lineal elements*, by Mr. J. J. De Cicco. (Abstract 43-5-260.)

15. *Generalizations of affine geometry*, by Dr. L. R. Wilcox. (Abstract 43-3-159.)

16. *Superimposition of decompositions in continuous geometries*, by Dr. Israel Halperin. (Abstract 43-3-125.)

17. *Critical curvatures in Riemannian spaces*, by Professor A. B. Brown. (Abstract 43-3-111.)

18. *Concerning Appell sets and linear functional equations*, by Professor I. M. Sheffer. (Abstract 43-3-145.)

19. *A new proof of the Euler-Lagrange equation*, by Professor Karl Menger. (Abstract 43–5–262.)

20. *Soap film experiments on the problem of Plateau and Douglas*, by Professor Richard Courant. (Abstract 43-3-117.)

21. *Minimal surfaces with prescribed contours not having least area*, by Mr. Max Shiffman. (Abstract 43-3-146.)

22. *The four-vertex theorem for a certain type of space curve*, by Professor W. C. Graustein and Mr. S. B. Jackson. (Abstract 43-5-261.)

23. *Elliptical moments*, by Professor C. J. Rees. (Abstract 43-3-140.)

24. *Equivalence of pairs of matrices*, by Dr. M. M. Flood. (Abstract 43-3-121.)

25. *Simple Lie algebras of type A*, by Dr. Nathan Jacobson (National Research Fellow). (Abstract 43-3-128.)

26. *On the coefficients of the series for the partition function*, by Dr. D. H. Lehmer. (Abstract 43-3-130.)

27. *On the convergence properties of the Lagrange interpolation formula based on the zeros of orthogonal polynomials*, by Professor J. A. Shohat. (Abstract 43-3-147.)

28. *The singular series for polynomials*, by Professor Leonard Carlitz. (Abstract 43-3-116-*t*.)

29. *Theory of quasi-groups*, by Mr. B. A. Hausmann and Professor Oystein Ore. (Abstract 43-3-126.)

30. *Group rings and extensions*. I, by Dr. Marshall Hall. (Abstract 43-3-124.)

31. *An improvement of Brun's method in number theory* (preliminary report), by Dr. J. B. Rosser. (Abstract 43-3-142.)

32. *On the paradox of Kleene and Rosser*, by Professor H. B. Curry. (Abstract 43-3-118.)

33. *The absolute optical instrument*, by Professor J. L. Synge. (Abstract 43-3-151.)

34. *On integration in vector spaces*, by Mr. B. J. Pettis. (Abstract 43-3-138.)

35. *Concerning homeomorphisms and interior transformations*, by Dr. G. E. Schweigert. (Abstract 43-3-144.)

36. *On interior transformations*, by Professor G. T. Whyburn. (Abstract 43-1-80.)

37. *On polyhedral manifolds and differentiable manifolds*, by Professor S. S. Cairns. (Abstract 43-3-113.)

38. *A series of involutorial Cremona transformations in S_n belonging multiply to a non-linear line complex*, by Professors Virgil Snyder and Evelyn Carroll-Rusk. (Abstract 43-3-149.)

39. *Fixed points and the extension of the homeomorphisms of a planar graph*, by Dr. Saunders MacLane and Professor V. W. Adkisson. (Abstract 43-3-131.)

40. *On cocycles and products in a complex*, by Professor Hassler Whitney. (Abstract 43-3-156.)

41. *On a certain restricted class of convex functions* (preliminary report), by Dr. I. J. Schoenberg. (Abstract 43-3-143.)

42. *Decompositions and dimension of closed sets in R^n*, by Mr. A. N. Milgram. (Abstract 43-5-263.)

43. *Projections of algebraic varieties* (preliminary report), by Professor B. C. Wong. (Abstract 43-3-162-*t*.)

44. *On lattices of hyperplanes.* II, by Mr. Garrett Birkhoff. (Abstract 43-3-109-*t.*)

45. *Critical diameters of central quadrics*, by Professor A. B. Brown. (Abstract 43-3-112-*t.*)

46. *Higher congruences and irreducible polynomials*, by Professor Leonard Carlitz. (Abstract 43-3-115-*t.*)

47. *Regression coefficients as means of certain ratios*, by Professor E. L. Dodd. (Abstract 43-3-119-*t.*)

48. *Isometric invariants of systems of curves on a surface*, by Dr. Aaron Fialkow (National Research Fellow). (Abstract 43-3-120-*t.*)

49. *On the inversion problem of Möbius*, by Professor Einar Hille. (Abstract 43-3-127-*t.*)

50. *On cyclic connectivity and local end points*, by Dr. F. B. Jones. (Abstract 43-3-129-*t.*)

51. *Fundamental theorems of comparative statistical analysis*, by Mr. W. G. Madow. (Abstract 43-3-133-*t.*)

52. *A theorem concerning homologies in a compact space*, by Mr. W. T. Puckett. (Abstract 43-3-139-*t*).

53. *On complete systems of tensors* (preliminary report), by Mr. L. B. Robinson. (Abstract 43-3-141-*t.*)

54. *Scrolls whose asymptotic curves are cubics*, by Professor C. T. Sullivan. (Abstract 43-3-150-*t.*)

55. *A note on residuals in commutative rings*, by Professor Morgan Ward. (Abstract 43-3-153-*t.*)

56. *A note on the relation between degree of polynomial approximation and continuity in the complex domain*, by Professor J. L. Walsh and Dr. W. E. Sewell. (Abstract 43-3-152-*t.*)

57. *Almost monotone transformations*, by Mr. G. C. Watson. (Abstract 43-3-154-*t.*)

58. *Analytic coordinate systems and arcs in a manifold*, by Professor Hassler Whitney. (Abstract 43-3-155-*t.*)

59. *Interior transformations on compact sets*, by Professor G. T. Whyburn. (Abstract 43-3-157-*t.*)

60. *On the mapping of Betti groups under interior transformations*, by Professor G. T. Whyburn. (Abstract 43-3-158-*t.*)

61. *A set of independent postulates for a ring with equality undefined*, by Mr. H. A. Arnold. (Abstract 43-5-258-*t.*)

T. R. HOLLCROFT,
Associate Secretary