

THE MARCH MEETING IN NEW YORK

The two hundred ninety-seventh regular meeting of the American Mathematical Society was held at Columbia University, on Friday and Saturday, March 25–26, 1932. The attendance included the following one hundred sixty members of the Society:

C. R. Adams, R. B. Adams, R. P. Agnew, R. L. Anderson, R. C. Archibald, R. G. Archibald, J. L. Barnes, E. F. Beckenbach, A. C. Berry, G. D. Birkhoff, H. W. Bode, H. F. Bohnenblust, A. B. Brown, B. H. Brown, J. H. Bushey, S. S. Cairns, A. D. Campbell, P. A. Caris, W. B. Carver, W. F. Cheney, Alonzo Church, J. A. Clark, J. M. Clarkson, George Comenetz, R. P. Conkling, E. H. Cutler, Tobias Dantzig, J. L. Doob, Paul Dorweiler, Jesse Douglas, Arnold Dresden, J. K. Dyer, L. P. Eisenhart, H. T. Engstrom, C. B. Fisher, T. S. Fiske, W. B. Fite, D. A. Flanders, Edward Fleisher, Tomlinson Fort, R. M. Foster, C. A. Garabedian, J. J. Gergen, B. P. Gill, R. E. Gilman, Eli Gourin, M. C. Gray, Laura Guggenbühl, F. C. Hall, Marshall Hall, G. A. Hedlund, Einar Hille, Lulu Hofmann, G. M. Hopper, I. O. Horsfall, Harold Hotelling, W. G. Hubert, J. C. Hughes, W. A. Hurwitz, L. W. Hussey, Nathan Jacobson, R. L. Jeffery, R. A. Johnson, F. E. Johnston, Edward Kasner, O. D. Kellogg, L. S. Kennison, M. V. Kenny, B. F. Kimball, J. R. Kline, P. A. Knedler, Mark Kormes, H. L. Krall, J. H. Kusner, K. W. Lamson, A. W. Landers, V. V. Latshaw, W. S. Lawton, Solomon Lefschetz, M. M. Lehr, E. O. McCormick, N. H. McCoy, L. A. MacColl, H. F. MacNeish, L. C. Mathewson, F. M. Mears, A. E. Meder, E. R. C. Miles, A. K. Mitchell, H. H. Mitchell, U. G. Mitchell, E. C. Molina, Morris Monsky, C. N. Moore, C. B. Morrey, G. W. Mullins, V. F. Murray, S. B. Myers, C. A. Nelson, Philip Newman, D. P. Nile, Oystein Ore, F. W. Owens, G. A. Pfeiffer, Hillel Poritsky, E. L. Post, W. C. Randels, G. E. Raynor, L. M. Reagen, H. W. Reddick, M. S. Rees, R. G. D. Richardson, J. F. Ritt, J. H. Roberts, H. P. Robertson, S. A. Schelkunoff, H. M. Schlauch, C. E. Seely, I. M. Sheffer, C. G. Shover, L. P. Sicheloff, L. G. Simons, James Singer, Abraham Sinkov, L. L. Smail, A. H. Smith, D. E. Smith, P. A. Smith, M. H. Stone, H. G. Swain, J. D. Tamarkin, Alexander Tartler, J. H. Taylor, J. M. Thomas, T. Y. Thomas, E. W. Titt, M. M. Torrey, A. W. Tucker, J. L. Vanderslice, I. L. Van Dyck, G. P. Wadsworth, R. J. Walker, Warren Weaver, Louis Weisner, E. H. Wells, M. E. Wells, Anna Pell Wheeler, H. S. White, Hassler Whitney, S. S. Wilks, John Williamson, W. A. Wilson, Clement Winston, H. P. Wirth, D. W. Woodard, H. M. Wright, R. C. Yates, Jacob Yerushalmy, Oscar Zariski, Leo Zippin.

No meeting of the Council of the Society was held. The Board of Trustees met on Friday evening at the home of Professor D. E. Smith.

The meeting opened on Friday morning with two sectional sessions, Analysis Situs and Points Sets, and Algebra and Arithmetic. At the end of the Friday morning sessions, Professor W. A. Hurwitz delivered an address on *General theorems on linear transformations of sequences*, with discussion led by Professor C. N. Moore and Dr. R. P. Agnew. The Friday afternoon session was opened with an address on *Summation of Fourier series*, by Professor Einar Hille, with discussion led by Professor J. D. Tamarkin and Dr. J. J. Gergen, followed by a general session for short papers. At the beginning of the Saturday morning session, Professor R. Courant, of the University of Göttingen, delivered an address on *Functional methods and characteristic values in the calculus of probabilities*. This was followed by sectional sessions, for Analysis and Geometry.

Titles and cross references to the papers (other than invited 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 13 were read before the section of Analysis Situs and Point Sets, Professor W. A. Wilson presiding; those numbered 14 to 23 before the section of Algebra and Arithmetic, Professor Fort presiding; those numbered 24 to 41 at the general session on Friday afternoon, President Eisenhower presiding; those numbered 42 to 51 before the section of Analysis, Professor Kellogg presiding; those numbered 52 to 61 before the section of Geometry, Professor R. A. Johnson presiding. President Eisenhower presided when the addresses were delivered. Professor Cummings' paper was read by Professor H. S. White. Mr. Hodge was introduced by Professor Lefschetz, Mr. Sherman by Professor Shohat, and Professor Zygmund by Professor Tamarkin.

1. *Concerning spaces which are unordered relative to systems of closed and compact point sets*, by Professor J. H. Roberts. (Abstract No. 38-3-60.)

2. *On continuous curves with cyclic connection of higher order*, by Mr. J. H. Kusner. (Abstract No. 38-3-79.)

3. *On the Rutt-Nöbeling theorem*, by Dr. Leo Zippin (National Research Fellow). (Abstract No. 38-5-119.)

4. *Irreducible continuous curves*, by Dr. Leo Zippin (National Research Fellow). (Abstract No. 38-3-80-*t*.)

5. *On Morse's duality relations for manifolds*, by Dr. A. B. Brown. (Abstract No. 38-3-81.)

6. *Regular families of curves. I*, by Dr. Hassler Whitney (National Research Fellow). (Abstract No. 38-3-82.)
7. *A topological theorem on algebroid singularities*, by Dr. Oscar Zariski. (Abstract No. 38-5-120.)
8. *Concerning regular pseudo d -cyclic sets*, by Dr. L. M. Blumenthal. (Abstract No. 38-3-78- t .)
9. *Regular families of curves. II*, by Dr. Hassler Whitney (National Research Fellow). (Abstract No. 38-3-83- t .)
10. *k -dimensional sets in n -dimensional space*, by Professor R. L. Jeffery. (Abstract No. 38-1-57- t .)
11. *A certain transformation on metric spaces*, by G. T. Whyburn. (Abstract No. 38-3-66- t .)
12. *A relation between metric and euclidean spaces*, by Professor W. A. Wilson. (Abstract No. 38-3-84.)
13. *On angles in metric spaces*, by Professor W. A. Wilson. (Abstract No. 38-3-85- t .)
14. *Families of groups generated by two operators of the same order*, by Mr. Abraham Sinkov. (Abstract No. 38-3-86.)
15. *Significance of quadratic residues in factorization*, by Mr. Marshall Hall. (Abstract No. 38-3-87.)
16. *Non-commutative polynomials*, by Professor Oystein Ore. (Abstract No. 38-3-88.)
17. *The application of Bernoulli functions of negative order to differencing*, by Dr. B. F. Kimball. (Abstract No. 38-3-94.)
18. *On the factorization of divisors of zero in finite commutative rings*, by Dr. J. L. Dorroh (National Research Fellow). (Abstract No. 38-3-89- t .)
19. *On factorable polynomials in several indeterminates over a Galois field*, by Dr. Leonard Carlitz (International Research Fellow). (Abstract No. 38-3-90- t .)
20. *On an arithmetical functional equation*, by Dr. Leonard Carlitz (International Research Fellow). (Abstract No. 38-3-91- t .)
21. *On a problem in additive arithmetic*. Second paper, by Dr. Leonard Carlitz (International Research Fellow). (Abstract No. 38-3-92- t .)
22. *On the approximate solution of certain equations*, by Professor Raymond Garver. (Abstract No. 38-3-93- t .)
23. *A generalized boundary value problem for the heat equation*, by Mr. F. G. Dressel. (Abstract No. 38-5-121- t .)

24. *On certain sufficient conditions that a set of constants should be Fourier constants*, by Professor C. N. Moore. (Abstract No. 38-3-95.)
25. *Successive curvatures of dynamical trajectories*, by Professor Edward Kasner. (Abstract No. 38-3-96.)
26. *Regular differential systems of the first order*, by Professor J. M. Thomas. (Abstract No. 38-3-97.)
27. *Applications of a covariant differentiation process*, by Professor H. V. Craig. (Abstract No. 38-3-101-t.)
28. *The boundary values of analytic functions*, by Dr. J. L. Doob. (Abstract No. 38-3-102-t.)
29. *Convergence criteria for double Fourier series*, by Dr. J. J. Gergen. (Abstract No. 38-3-103-t.)
30. *Note on homogeneous functionals*, by Dr. L. S. Kennison. (Abstract No. 38-3-59-t.)
31. *The inverse matrix for de la Vallée-Poussin summation*, by Professor George Rutledge. (Abstract No. 38-3-104-t.)
32. *A reliable method of obtaining the derivative function from smoothed data of observation*, by Professor George Rutledge. (Abstract No. 38-3-105-t.)
33. *An expansion of meromorphic functions*, by Professor J. L. Walsh. (Abstract No. 38-3-61-t.)
34. *Interpolation and functions analytic interior to the unit circle*, by Professor J. L. Walsh. (Abstract No. 38-3-62-t.)
35. *Note on the degree of convergence of sequences of analytic functions*, by Professor J. L. Walsh. (Abstract No. 38-3-63-t.)
36. *On the overconvergence of sequences of rational functions*, by Professor J. L. Walsh. (Abstract No. 38-3-64-t.)
37. *On polynomial interpolation to analytic functions with singularities*, by Professor J. L. Walsh. (Abstract No. 38-3-65-t.)
38. *Estimates, moments, and distributions of certain statistics in fragmentary samples*, by Dr. S. S. Wilks (National Research Fellow). (Abstract No. 38-3-106-t.)
39. *On the inversion of a special cyclic system*, by Professor Malcolm Foster. (Abstract No. 38-3-117-t.)
40. *On planar element strips*, by Professor P. F. Smith. (Abstract No. 38-3-118-t.)
41. *On lacunary trigonometric series*, by Professor Antoni Zygmund. (Abstract No. 38-5-122-t.)

42. *Sequences of meromorphic functions*, by Dr. J. L. Doob. (Abstract No. 38-3-107.)
43. *The Dirichlet problem for harmonic functionals*, by Mr. W. V. D. Hodge. (Abstract No. 38-3-108.)
44. *On the zeros of certain polynomials related to Laguerre and Jacobi polynomials*, by Mr. W. S. Lawton. (Abstract No. 38-3-109.)
45. *Elementary transformations*, by Mr. E. R. Lorch. (Abstract No. 38-1-56-t.)
46. *Sufficient conditions in the problem of the calculus of variations in n -space, in parametric form and under general end conditions*, by Mr. S. B. Myers. (Abstract No. 38-3-110.)
47. *On the numerators of the convergents of the Stieltjes continued fractions*, by Mr. Jacob Sherman. (Abstract No. 38-3-111.)
48. *A class of solutions of the heat equation*, by Mr. F. G. Dressel and Professor E. R. C. Miles. (Abstract No. 38-5-123.)
49. *On a matrix differential operator*, by Professor A. K. Mitchell. (Abstract 38-3-98.)
50. *Three theorems applicable to vibration theory*, by Professor B. F. Kimball. (Abstract No. 38-3-99.)
51. *Certain generalizations in the analysis of variance*, by Dr. S. S. Wilks (National Research Fellow). (Abstract No. 38-3-100.)
52. *Equiareal maps with parabolic meridians and parallels*, by Professor B. H. Brown. (Abstract No. 38-3-112.)
53. *The limit of the ratio of arc to chord for the curves drawn at a point on a surface*, by Mr. George Comenetz. (Abstract No. 38-3-113.)
54. *Conformal transformations in function space*, by Dr. L. S. Kennison. (Abstract No. 38-3-58.)
55. *The direction cosines of a p -plane, L_n , in a euclidean n -space, S_n* , by Dr. S. S. Cairns. (Abstract No. 38-3-114.)
56. *Some involutorial line transformations interpreted as points of V_2 of S_5* , by Mr. J. M. Clarkson. (Abstract No. 38-3-115.)
57. *Heptagonal systems of eight lines in a plane*, by Professor Louise D. Cummings. (Abstract No. 38-3-116.)
58. *Plane Cremona transformations arising from a generalization of the transformation by reciprocal radii*, by Dr. H. C. Shaub. (Abstract No. 38-1-22-t.)

59. *On summability of double sequences*, by Dr. R. P. Agnew (National Research Fellow). (Abstract No. 38-5-124-*t.*)

60. *Definition of a field by four postulates*, by Professor W. A. Hurwitz. (Abstract No. 38-5-125-*t.*)

61. *Characterization of collineations on the real projective plane*. Preliminary report, by Mr. Walter Prenowitz. (Abstract No. 38-5-126-*t.*)

TOMLINSON FORT,
Associate Secretary

THE APRIL MEETING IN CHICAGO

The two hundred ninety-eighth regular meeting of the Society was held at the University of Chicago on Friday and Saturday, April 8-9, 1932. About one hundred thirty persons attended the meetings, among whom were the following one hundred six members of the Society:

A. A. Albert, F. L. Axen, W. L. Ayres, R. P. Baker, R. W. Barnard, I. A. Barnett, Walter Bartky, W. D. Baten, S. F. Bibb, G. A. Bliss, Henry Blumberg, D. G. Bourgin, J. W. Bower, R. C. Bullock, R. S. Burington, L. E. Bush, R. D. Carmichael, E. W. Chittenden, A. B. Coble, E. G. H. Comfort, H. H. Conwell, A. T. Craig, H. B. Curry, D. R. Curtiss, L. E. Dickson, R. M. Ely, Arnold Emch, H. P. Evans, H. S. Everett, Gordon Fuller, H. L. Garabedian, Cornelius Gouwens, L. M. Graves, L. W. Griffiths, M. L. Hartung, O. C. Hazlett, M. R. Hestenes, E. H. Hildebrandt, T. H. Hildebrandt, T. F. Holgate, D. L. Holl, M. H. Ingraham, W. C. Krathwohl, A. C. Ladner, E. P. Lane, R. E. Langer, M. I. Logsdon, R. E. Lowney, W. A. Luby, A. C. Lunn, E. B. Lytle, J. S. McNair, C. C. MacDuffee, W. D. MacMillan, W. A. Manning, Morris Marden, A. E. May, J. R. Mayor, E. W. Miller, E. H. Moore, T. W. Moore, E. J. Moulton, F. H. Murray, Rufus Oldenburger, E. J. Olson, G. A. Parkinson, E. D. Pepper, T. S. Peterson, H. H. Pixley, Tibor Radó, G. Y. Rainich, E. A. Rasor, W. T. Reid, H. L. Rietz, P. G. Robinson, W. E. Roth, R. G. Sanger, I. J. Schoenberg, Henry Schultz, Nathan Schwid, H. A. Simmons, E. B. Skinner, H. E. Slaughter, Burke Smith, E. S. Sokolinkoff, I. S. Sokolnikoff, A. A. Stafford, R. C. Stephens, P. M. Swingle, V. B. Teach, W. J. Trjitzinsky, P. L. Trump, J. S. Turner, H. L. Turrittin, A. M. Tuttle, J. I. Vass, H. S. Wall, L. E. Ward, K. W. Wegner, R. L. Wilder, F. B. Wiley, K. P. Williams, Y. K. Wong, F. E. Wood, Roscoe Woods, C. R. Worth.

A meeting of the Council was held on Friday afternoon, April 8, in Room 316, Eckhart Hall of the University of Chicago. Associate Secretary Ingraham announced the election of the following persons to membership in the Society: